THE BROOKINGS INSTITUTION

NEW START AT ONE YEAR:

IMPLEMENTATION AND LOOKING TO THE FUTURE

Washington, D.C.

Friday, February 10, 2012

Introduction and Moderator:

STEVEN PIFER
Senior Fellow and Director, Arms Control Initiative
The Brookings Institution

Panel 1: New START Implementation:

ROSE GOTTEMOELLER
Assistant Secretary of State for Arms Control,
Verification and Compliance
U.S. Department of State

MICHAEL ELLIOTT
Deputy Director for Strategic Stability, The Joint Staff
U.S. Department of Defense

TED WARNER
Senior Advisor to the Under Secretary of Defense
(Policy) for Arms Control and Strategic Stability
U.S. Department of Defense

Panel 2: Looking Forward on Strategic Reductions

JAN LODAL
Member, Board of Directors, The Atlantic Council

JAMES ACTON
Senior Associate, Carnegie Endowment for International Peace

* * * * *

P R O C E E D I N G S

MR. PIFER: Okay, good afternoon. Welcome to the Brookings Institution. My name is Steven Pifer. I am a Senior Fellow here, and also the Director of the Arms Control Initiative, and I'll be chairing the two panels we have today.

First is an admin note. Please, if you have a cellphone, either turn it off or silence it.

And then second, I would also like to express Brookings's gratitude to the Ploughshares Fund, which has generously supported the Arms Control Initiative and makes events like this possible.

Last Sunday, February 5, the New START Treaty had its first anniversary of its entry into force. And what I've noticed about arms control agreements is, they get a lot of attention when they're signed, and they get a lot of attention during the ratification process, and then often they sort of fall off the radar screen.

And certainly, if you go back to April 2010, when President Obama and President Medvedev met in Prague and signed the New START Treaty, it got a lot of attention.

And in the last several months of 2010, when the treaty was being debated for part of the ratification process on the Hill, it got a lot of attention.

And then in February of last year, on February 5, Secretary Clinton and Foreign Minister Lavrov exchanged instruments of ratification, which technically brought the treaty into force -- and you really haven't heard a lot about the treaty since then.

So part of this objective today of this panel is to correct that, and talk about what's happened in terms of implementation of the treaty over the last year. How has that gone? And then we'll also take a bit of a peek looking forward. What sort of things might follow on New START?

And our first panel, we have a terrific set of speakers from the U.S. government. I'm not going to do the full bios because you have them in the program. But just to introduce them briefly, on my left, Rose Gottemoeller, who is now the Acting Under Secretary of State for Arms Control International Security. We have from the Joint Staff Michael Elliott, who's the Deputy Director for Strategic Stability. And on my far right, we have Ted Warner, from the Office of the Secretary of Defense. He's the Senior Advisor to the Under Secretary of Defense for Policy for Arms Control and Strategic Stability.

But I think what we have here -- it's fair to say this is really the core of the leadership team that negotiated the New START Treaty. This, by the way, is the treaty. Its associated protocol and all of the annexes -- it was quite a production. But they were at Geneva and really led the effort that produced this treaty. And we are delighted to have them here now to talk about what's happened.

So Rose, let's start with you, and what's happened over the past year?

MS. GOETTEMOELLER: Quite a bit. Thank you, Steve, for that introduction -- because I think it gives the audience a really good sense of how we, the treaty team, feel about it.

It was a big effort to get it negotiated. It was a big effort to get it

ratified by the U.S. Senate, by the Russian State Duma and the Federation Council, and get it into force.

But then it did kind of drop out of sight to everybody but the implementers inside the U.S. government. So this is a very welcome opportunity today, and a bit of a celebration, as far as I'm concerned, of the first birthday of the New START Treaty.

I'm also delighted to be here with Mike Elliott and Ted Warner. Again, as already mentioned by Steve, they were my very close partners, leadership team of the delegation on the U.S. side of the New START Treaty negotiations in Geneva in 2009 and 2010. So we are really, I would say, a close-knit triumvirate, and we had many other people from the other agency involved as well. It was really a super team on our side, as it was on the Russian side.

The Russian side had a really excellent team of top flight diplomats and experts involved in the negotiation of the treaty -- also, an interagency group on their side.

I wanted to start by talking a little bit about implementation of the treaty, what has happened in very general terms. Mike Elliott's going to dig down deep and give you more details about how the inspections are actually conducted so you get a feel for really the detail and seriousness of the effort, and then Ted will pick up and talk a little bit about the future.

But when the Q&A time comes, we'll kind of hand the baton around in terms of how to answer your questions.

First of all, I would just say that we realized going into negotiation of the New START Treaty that this treaty was going to be different than the last

one that was negotiated back in the early 1990s, the late 1980s, early 1990, the START Treaty.

It was a treaty that was really born right at the end of the Cold War and was brought into force right at the end of the Cold War. Had a very important role to play in that it helped us to bring the nuclear forces of the Soviet Union and the Russian Federation, United States as well, through that period of important transition, in a very stable and orderly way.

We knew that this treaty was going to be much different in that it was the first treaty that was really negotiated long after the Cold War had ended. So there were some different things that we really had to consider.

One was, we were thinking about going lower. The President made very clear in his Prague Initiative speech from April 2009 that we would intend to go lower in a step by step process. So we wanted to ensure that this treaty foresaw that step by process and gave both sides the flexibility in future to go lower.

So the New START Treaty, as one of its basic tenets, preserves each nation's ability to determine their own strategic nuclear force structure, giving both sides the flexibility to deploy and maintain our strategic nuclear forces in a way that best serves our own national interests.

So that was an important facet, I think, and one that was very important to the post-Cold War nature of the New START Treaty.

New START has a strong and flexible implementation regime that gives us great insight into each other's strategic forces. And I think it's worth emphasizing right at the outset that the measures for implementation of the New

START Treaty, whether verification or other types of measures, are totally reciprocal. The same obligations are on the shoulders of the United States as are on the shoulders of the Russian Federation. So bear that in mind as we talk through the treaty, that these obligations are totally reciprocal.

The inspection process, I will say, at the outset has been going very smoothly. I would say in general, the implementation has been conducted in a very businesslike and pragmatic manner. This was the attitude that we had at the negotiating table in Geneva, and it is definitely carried forward into the implementation process.

Both on the Russian side and on the U.S. side, we've been keeping the focus on problem-solving, on being pragmatic about how we go about it, and it really, again, I think is quite suited to the post-Cold War era we're now in, where we have really some serious security issues that we must address on both sides and continue to address regarding our nuclear forces, but we can go about it in a very pragmatic and problem-solving kind of way.

So throughout this first year of the treaty life -- and the treaty year goes from February 5 to February 5 since the treaty was entered into force on February 5, 2011, when Minister Lavrov and Secretary Clinton exchanged the paperwork to bring the treaty into force.

So we just ended the first treaty year. In that treaty year, we really kept pace with each other on inspections. I've been joking a bit that it was a bit like tag team. First, the Russian Federation would announce an inspection, and then we would, and then we'd announce one and they would. So the net result was that we kept pretty steady pace with each other throughout the year, and

each conducted 18 inspections, which is what we are allowed under the treaty -- 18 inspections annually.

Now, of course, with the new treaty year beginning, we'll begin again from zero up to 18, and I'm assuming again we'll have the same kind of steady progression in the inspection process.

Through these inspections, according to the terms of the treaty, we are able now to confirm the actual number of warheads on any randomly selected Russian ICBM or SLBM, something that we were not able to do under the START Treaty. And once again, obligations are reciprocal, so the Russians can do the same for us. And Mike Elliott will be talking a bit more about this so-called reentry vehicle on site inspection process.

We have also, both sides, conducted delivery vehicle exhibitions. Last March, the United States conducted exhibitions of its B-1B and B-2A heavy bombers, and the Russian Federation conducted an exhibition of its RS-24 ICBM and associated mobile launcher. This was the first time, by the way, that we got a good look at the RS-24. So that was in the exhibition process as the treaty was first entering into the force.

The United States and Russian Federation have also been sharing a veritable mountain of data with each other. Over the course of this first treaty year, we have exchanged 1,900 notifications pursuant to the New START Treaty.

Why so many notifications? These notifications help us to keep track of the movement of each other's strategic forces and changes in status of our strategic systems.

For example, a notification is sent out every time a heavy bomber is moved out of country for more than 24 hours. So we are exchanging information at a greater rate than under the START Treaty.

Just to give you -- by way of comparison, 2009 was the last treaty year for the START Treaty. START went out of force in December 2009, and the first treaty year for the New START Treaty, as I said, went from February 5, 2011, February 5, 2012. So comparing those two treaty years, we're 28.5% up on the number of notifications exchanged. So we are exchanging more information under the New START Treaty than under START.

On top of the individual notifications, we exchange a comprehensive database once every six months -- so two times a year. This full account combines with the notifications to create what I like to think of as a living document. Every six months, we have a comprehensive snapshot of what the two strategic forces look like, and throughout the course of that six month period, on a day in, day out basis, we are updating the status of those databases, updating the status of the strategic forces so that we have very good visibility into each other's strategic nuclear forces -- once again, very good for mutual predictably and mutual confidence, which is the whole point of the exercise.

These data exchanges are providing us, I would say, with a much more detailed picture of the Russian Federation's strategic nuclear arsenal than we've had in the past. Again, vice versa is true as well. The Russians are getting a closer look at our strategic nuclear forces than in the past. And of course, both of us back up our exchanges of information and inspections with our own national technical means for verification -- satellites and other kinds of

monitoring platforms that we use to really back up our boots on the ground, as Senator Lugar liked to say -- our inspectors and also the other kinds of information exchanges that take place under the treaty.

Ted is going to want to talk a bit more about this because he just spent the last couple of weeks in Geneva for the Bilateral Consultative Commission -- the so-called BCC, the implementation commission of the treaty, which has now met for its third time. But we had some good news out of that BCC meeting.

Remember telemetry? It was one of the tough issues during the course of the negotiation, and there were some issues that were left hanging at the end of the negotiation that needed to be wrapped up, we knew at the BCC, in the implementation process. And so this week, they were signed in Geneva, the three agreements that basically wrap up those hanging issues. And if you're interested, I'm not recommending it -- not many people are interested in telemetry, but if you are interested, those three agreements appear on the website of the AVC Bureau, and you can get a look at them. And Ted may want to talk more about them, if you want to take on telemetry some more.

So I'm not going to say much about it, but I did want to stress one point -- that, in my view, New START is helping us to build a foundation for the next phase of reductions. The preamble of the New START Treaty makes note of the fact that it is part of a step by step approach, leading to further reduction negotiations. So we're hard at work at thinking through what those next steps may be, and it's a very, I think, good foundation that we have laid through the negotiation and now implementation of the New START Treaty, and it will help us

as we move forward into the next phases.

The last thing I will say, though, is that it's an appeal to all of us. And many of you have heard this from me in the past, but the next treaty will be one that I think takes us in some more challenging directions. President Obama, the day he signed the New START Treaty in April 2010, said that the next treaty should focus on reductions in three categories.

The first is further reductions in deployed strategic nuclear weapons. That's always how we've looked at these negotiations in the past. A deployed nuclear system is a missile or bomber, but a missile with the warhead loaded on it. That's a deployed system, and then of course in its launcher and prepared for operations if, God help us, it were ever necessary.

But in the future, the President said we should look at a category of non-deployed strategic nuclear weapons -- that is, weapons that are held in reserve or in storage facilities and also nonstrategic nuclear weapons. Nonstrategic nuclear weapons are sometimes called tactical nuclear weapons.

So the President laid out a very ambitious set of goals for the next round of reduction negotiations, and it's an appeal to us all, that we need to be thinking about how to go about it, what the concepts and procedures might be, what the verification techniques and technologies might be that will be required for this more ambitious phase of future reduction negotiations.

So with that, I'm going to turn next directly to Mike. Is that right, Steve?

MR. PIFER: Yeah, yeah. Mike, okay, maybe you could describe a little bit more of the impact of the treaty on U.S. strategic forces -- you know,

how the U.S. military handles these inspections and such.

MR. ELLIOTT: I can. Thanks, Steve, again, for the introduction, but also for inviting us to participate in this session. For me, it's always good to get together with Rose and Ted because of that strong relationship we built over a full year of working on this.

What I should point out from the beginning as well -- negotiators put this treaty together over a year, both on the U.S. side and the Russian side. It's the militaries on both sides who actually have to carry through the actions there.

And so writing this was a challenge for us. We were in constant communication with each of our services, as I'm sure our Russian counterparts were. And in the end, it's up to them to make interpretations when the words are blurred or when there's different interpretations.

So I'm going to try and talk you through the various mechanisms in the treaty, including the hands-on business of running an inspection and how that plays out in helping both sides verify that the tenets of the treaty are being met.

During this first year, as Rose said, we have been working relatively diligently to carry out a wide range of exhibitions to show what particular systems look like, demonstrations to show how we're going to do specific procedures.

We've actually gone through some eliminations and some conversions of systems out there for specific delivery, strategic delivery vehicles. And along the way, we've had the opportunity for both sides to conduct 18 onsite

inspections, which was the full quota for both countries.

Now as Rose said, in addition, what underpins this is a series of notifications. She said almost 2,000 that are made. The information is gathered together by the military services, and passed through State Department and the NERC, and then transmitted to the Russian Federation. This keeps them apprised of weapon movements as we move them from spot to spot, and I'll point out a feature of this treaty in doing that is when we make these notifications, we use what's called a unique identifier to not only tell them what system is moving, but specifically what system is moving. And so it's the basis of a more full accounting system during this environment.

Now when, from time to time, uncertainties or ambiguities come up, we wrote in in anticipation of that situation provisions for a Bilateral Consultative Commission, or the BCC, as it's known. I won't dig into what they do specifically, other than to note that there's been three sessions so far. We've worked through some of the early issues in terms of understanding what the negotiators meant when they put this together, and if you have specific questions, I think I'll defer to Ted Warner, who is the Deputy Commissioner for that, just returned from Geneva and the third session of the BCC.

Now we thought you might be interested in precisely how the military goes through -- and I say military -- it's the military on both sides that go through this process, but I'm going to focus on the U.S. perspective for this, of how we go through the process of doing the inspection.

The first thing that you need to understand in this process that we declare data twice a year, and that those database declarations of the systems,

the strategic delivery vehicles and the warheads that are located throughout each country are done in a large way, but it's a snapshot twice a year.

When an inspection happens, one of the things that will be done is we will give then to the inspection team as they arrive the specifics of what is at that particular base at that moment in time, and it'll be in relatively great detail.

The process of inspection, then, is to use a statistical sampling process to confirm what that database says. And over the period of these 18 inspections each year, carried out over 10 years, it gives both countries an opportunity through this sampling to confirm that the two sides are complying with the treaty.

Now how this works is -- I've said -- or you've probably read on it -- is both sides have the right to posture their forces the way they wish in terms of the number of each delivery system, how many warheads are going to be on each one and where they're located within their countries. This process lays that out. The notification process lets them know where they're going so that on the day an inspection is called by one country or the other, they then should have a good idea when they depart their home country what they expect to see at this base.

I'll note that some of the things that were in the inventory when we began this process have already been taken off the books. An example of this is we finished the conversion of all B-1B heavy bombers so that they're no longer capable of employing nuclear warheads, and therefore captured only in the conventional.

At the same time, we're in the process of taking the remaining

Peacekeeper ICBM launchers off of the books through an elimination process, and we're beginning the process of eliminating 50 ICBM launchers for the Minuteman that were unused during this early part of the treaty.

Also along the way, we've had an opportunity to start reducing the number of reentry vehicles on each one of the Minuteman IIIs that we have out there, and we'll soon start that process for some of the SLBM launchers on each coast.

Those activities are then transitioned through to the databases that are maintained because it's changing each week or each month, certainly, so that when the inspection is called, they're going to arrive, and they're going to know what that snapshot is for the moment.

As you know, we're headed down to these limits of 700 deployed strategic delivery vehicles. That means ICBMs, SLBMs and heavy bombers.

And part of this flux back and forth is that the forces on both sides, if they're going to be able to operate effectively, have to be able to move systems back and forth for a maintenance. As Rose said earlier, when you take warheads off or you take an ICBM out of a launcher or an SLBM out of a launch tube, that system becomes non-deployed, and so we report that back and forth. That then floats through to that database that the inspectors will see when they get there.

The next thing to think about is a New START Treaty, if you want this to be a true snapshot and an ability for each party to verify the treaty, it needs to be short notice. And so these are literally a short notice inspection. Each side has to notify no later than 32 hours prior to their intended arrival at a

point of entry, which for the United States is either Washington DC or San Francisco.

The base personnel are used as sort of an integral part of a broader inspection team that's comprised of members of the Defense Threat Reduction Agency and then members from each particular unit as they're selected.

When the inspection team from the Russian Federation notifies the United States of their intended arrival at a point of entry, this is a clue to the Defense Threat Reduction Agency who populates a database available or a website available to all the military bases out there, that the Russian Federation has initiated the inspection process. At that time, everyone for that particular point of entry will be aware that they may be vulnerable for an inspection in this window.

When the Russian inspection team arrives at the base, they then notify the DTRA escort team, as they're called, within four hours of their arrival what their intended inspection site is. At that time, the escorts notify the specific base that will be inspected -- and remember, this is now still for them -- although they've had some hint that there could be an inspection coming, they now have clear instructions that they will be inspected and, in fact, that the Russian inspection team must be delivered to the inspected base within 24 hours of the selection of the particular base they're going to.

And when they do this, this sets off a series of activities at the local unit, as that unit commander ensures that his base is prepared to receive the inspection team, and to ensure that they have the opportunity to fully exercise

their rights under that treaty.

This could be as mundane as making sure that you have a sufficient number of quarters available in the base building office, and that could be up to and including moving people out of that if necessary to make sure we have rooms for those people on the base.

Make sure, as you know, that we are doing routine operations. Within one hour after notification, any movements of these strategic delivery vehicles, movements of warheads on those have to stop and be locked down. So it becomes the unit commander's responsibility to make sure each element of that criteria is met for the inspection team.

Now the military will then move the Russian inspection team, as I said, within 24 hours, and bring them to that particular base where they'll be met by a treaty compliance officer or a TCO. The TCO is the day to day operations guy for any unit commander out there who makes sure that everyone who has to participate in an inspection knows precisely what they're going to do in terms of facilitating the Russian inspection team's ability to complete the task.

They will be the one that actually escorts them around the facility to allow them to do that. They will make sure that the maintenance teams that have to configure whatever the inspected system is are ready to receive the inspection team, and then actually walk them through that process as they do this.

This includes, again, walk around inspections to make sure everything is ready in advance, and making sure that any operations not germane to the inspection have ceased appropriately.

And there's a tension here, if you can imagine, for both militaries is that they have a right or a responsibility to offer the other country the opportunity to fulfill all of their rights, but at the same time, they have a responsibility to protect from a security standpoint those things that aren't directly involved in that inspection. And so they have to diligently walk through this process on that.

Now there's basically two types of activities that are going to happen. I'll start with an ICBM. SLBMs are relatively similar to this, and then what happens with the bomber community.

On the ICBM side, the warheads' assemblies have to be separated from the selected ICBM that the Russian inspection team designates. They'll be told when they arrive at the base, how many different missiles are out there in place in launchers on that particular day. They'll be told precisely how many warheads are on each one of those.

The Russian inspection team leader then selects which silo he would like to inspect, and he has the opportunity to select -- assuming there are empty launchers on that location, to designate one empty launcher to confirm that it, in fact, has no missile or warheads in that particular launcher.

When the maintenance team goes under observation from the Russian inspection team to the particular launcher that's been designated, they then have to go through a process where they separate what's called the front section from the ICBM, and they put it in a specially configured mobile vehicle that protects that front end section from the elements.

Now I'll point out that during this period of time, the Russian

inspectors must be offered a full opportunity to observe this front end section, to make sure that nothing's removed from it so that they can confirm with confidence that it has exactly what we said was on the front of that.

That may not seem like a difficult task, but in North Dakota in January, when the dirt and the snow are going sideways at 30 miles per hour, it's not an insignificant deal. And you have to remember that there's a strong need to protect the weapon systems that we have out there from a safety standpoint. So we have to work through that mechanization of both, give them the opportunity to see clearly what's there and make sure that we protect the weapons system at the same time.

Now after the inspectors are given an opportunity to look at the front end, to confirm the presence of the precise number of RBs we say are there, the system is returned. The Russian inspection team can move off and see the empty launcher if there was one then. They would then return to the main operating base, whatever it happens to be for that night.

Usually, we have an opportunity to do some sort of cultural event, and I'll tell you a lot of times it's a trip down to the local mall to do a little shopping, certainly give them an opportunity to have dinner.

They're given transportation back to the point of entry, and they depart usually the next day.

Now in between there, there's one important thing that takes a little bit of work -- is if everything works right, there are absolutely no ambiguities, the Russian inspection team will report with precision what they did, the U.S.S. score team will correspondingly say what they observed during this period of

time. The two teams get together and write a report of that, and then submit the report -- very, very detailed process.

Periodically, there may be an ambiguity arises as to precisely what went on during that process, and the inspection team will then write down in some detail what they believe the ambiguity was. The U.S.S. score team will then respond to that, write down what they observed and what they believe, if they're able to give a response to the Russian team at that point what the situation is or what the clarifying information is.

For those things that they're not able to work out onsite, they may ultimately end up in this Bilateral Consultative Commission, in which we work through whatever the issue was. And sometimes, it's simply procedures. We need to be able to stand in a different place to see the item of inspection more clearly, or it wasn't absolutely clear because of the lighting conditions what was there or something like that.

But each one of these things is not unusual and is almost always worked through in a very short period of time.

Jump now to submarines -- the difference is, it's a float. They pick first when they arrive at that base and contact the TCO which submarine of those submarines that are on the base they would like to inspect.

They're then briefed on the configuration of that particular submarine, and then they're given an opportunity to again designate a launch tube in which they go through basically the same process. It's just loaded into a different position since they're at pier side. And then, if there is an empty launcher on the submarine, they would also have an opportunity to look at that

empty launcher.

On the bombers, it's a little different. Both sides understood that since the early '90s, that the bombers of both sides no longer sit on alert, and so there wasn't an exactly similar situation of declaring how many weapons are on each one of those bombers and then going out and inspecting those numbers of bombers to confirm that.

The reality is, even if they're not loaded, zero is a number, and so through this process, at arrival on the bomber base, we declare the number of bombers there and that there are no weapons on those bombers would be the normal condition.

The Russian Federation then gets to go to a selection of three of those heavy bombers and, in fact, confirm that there are no weapons on those particular bombers through that process.

The same procedures in terms of ambiguities is carried through, and the same process of taking back to the point of entry and returning to their home country.

In reverse, the U.S. military, which populates inspection teams with the Defense Threat Reduction Agency, goes through a reciprocal process with the Russian Federation in which we go to each one of their facilities and go through basically the same process and cultural events.

And with that, Steve, I'll turn it back to you.

MR. PIFER: Thanks, Mike.

Ted, I know you want to offer a couple of comments on the Bilateral Consultants Commission, but also, as Rose mentioned, I mean, the

President describes New START as a step. Any talks about another step coming? What would you like to tell us about, you know, what the U.S. government is doing with regards to what follows New START.

MR. WARNER: Thanks, Steve. Excuse me.

I welcome the opportunity to see my colleagues again. I see Mike in the Pentagon perhaps all too often. So that's not so unusual, but Rose and I, our paths cross less frequently.

I just came back on Wednesday from a Bilateral Consultative Commission meeting of about two weeks in duration. The treaty says that you should meet -- generally sets the standard of two times per year. If you don't want to meet two, you can sort of agree with one another to do less, and you can also, through a notification process, decide to do more.

We met twice during 2011, and once here in the calendar of 2012, though I guess we were actually still in session between -- at the time of the birthday of the year since entry into force.

Just a couple of things -- the BCC, probably about 20 or 25 people from both sides. We have representation from all the interested components on both sides -- the Ministry of Defense, the Ministry of Foreign Affairs, Ross Adam, the people who worry about the nuclear weapons themselves on the Russian side.

On the U.S. side, we have representatives from the Department of State, from various portions of the Department of Defense, from the Joint Staff, sometimes from Strategic Command, which is the overall operational command that has oversight of all these strategic nuclear systems from the Office of the

Secretary of Defense. We often have representatives from the services or we'll have other specialists.

A couple of examples of things we've handled within the three meetings of the BCC -- there were some things, and Rose made reference to it. The treaty said that within the first year, it was up to the Bilateral Consultative Commission to fill out some details to get ready to do this exchange of information. Telemetric information is this radio signals that monitors the performance of a missile during test launches.

So telemetry here is just this information that is used by the testing party to, in fact, monitor the performance of the missile. That's why they've done the test launch, to see if it's performing the way it's supposed to, and it's an opportunity from the other side to get insights into the capabilities of those missiles.

Well, we had to reach a couple of enabling agreements. We had to hold demonstrations of playback equipment and recording media that was going to be used. Those demonstrations were held in midsummer.

In the wake of that, the Russians said, well, we'd like to get an agreement about how the procedures for future demonstrations might be. We worked through that in one session in mid-fall, and we completed that in the session that was completed earlier this week.

The other thing we had to do, we had to agree with great precision about the portion of the flight of the missile for which telemetry would be exchanged. And there was a process gone through to say we're going to go from point X to point Y, and you'll see that if you are interested in going on the

State Department website. You can see the actual agreement with the carefully crafted language on precisely what portion of the flight for which telemetry will be provided.

And finally, at the beginning of each year, you have to make an agreement now on the calendar year previous of which number of flights you're going to exchange. And that was also a process that we went through and completed -- the decision on the exchange. We concluded the agreement here in early 2012. It was about flights that were conducted during 2011.

The one other thing I'd say about the BCC is that we end up with these ambiguities, particularly in the first year of the application of a new treaty. We were building on the experience on this whole inspection process that Mike outlined.

We were very much building on 15 years of experience of implementing START I. I was in charge, with the help of some people that are actually in the room here, of negotiating painstakingly -- not so much what it's in the treaty, because the treaty's only 15 pages long or so, and there's one page -- I guess it's 17 pages -- one page on inspections. But we had 80 some pages on the protocol, and another 90 pages in the annex. And we had to go step by step by painful step. I was, I think, wincing as I heard the description of what we have to go through, because we had to get through that very detailed.

One new thing that we did in this treaty is we had these things called unique identifiers. So every missile that falls within the scope of the treaty has to have a single unique alphanumeric indicator. This is a submarine launch ballistic missile or SLBM. An intercontinental range missile is an ICBM. And the

heavy bombers that are equipped for nuclear armaments.

One of the things we found on both sides -- we had painstakingly said in the protocol where precisely must you put this unique identifier. Sure enough, when it came to implementation, on both sides there were minor mess-ups. Somebody put it on the second stage of the missile instead of the first stage of the missile. Somebody put it beside it here when they were supposed to put it on the missile.

So this kind of thing, which is natural when you have implementation over many, many different bases and all this -- so this thing -- the other issue that he talked about is, when you're holding an inspection, where do you stand? Can you make sure you have continuous observation of this, this and this? We've had to work through those kinds of things.

Again, we've worked through them, I think, in a highly productive manner. Many of the people who negotiated the treaty are involved in this process of implementation, and you could tell even by the third meeting of the BCC that just the manner in which we just parsed the work, got to work, went to working groups, figured it out, settled most things -- other wins, we say, well, we're not quite there yet. Let's work on it on the intercessional period. We can exchange drafts of this solution, and we may solve it during then or we'll do it at the next time we meet.

Let me talk a little bit about what we're doing now and what lies ahead. There's no doubt that President Obama made clear at the time of the signing at the treaty that he looked forward to at least one more round of strategic nuclear arms reduction with Russia. He did make, as Rose -- I'll just

repeat the point. We want to broaden the scope.

The strategic arms limitation process beginning in the late '60s and running up until around 1980, then the strategic arms reduction process renamed by President Reagan, and now directed not just toward limiting the buildup but actually driving down the strategic offensive inventories -- we really are at a stage where we need to broaden the scope from the strategic nuclear weapons to the nonstrategic nuclear weapons.

Most of those are what we would know as tactical nuclear weapons. That is, they're delivered by shorter range systems. They're delivered by artillery pieces. They could be delivered by fighter bomber aircraft. They could be delivered on submarines and nuclear-tip torpedoes or the like. The Russians have tended to even have -- they have a nuclear-tipped antiballistic missile defense system around Moscow, the ABM system. They've even had nuclear-tipped, for instance, surface-to-air missile assistance.

So what the President said is this time, the next time we look at this, we really ought to look at the total operational inventory, the nuclear stockpile of operational weapons. And that would be strategic and nonstrategic, and both deployed and non-deployed.

A deployed weapon -- and again, this is a little bit repetitious -- is one that's literally located on its delivery vehicle. In other words -- or in the case of it's inside its launcher, its silo-based launcher, its mobile transport or erector launcher for a land-mobile ICBM or its ballistic missile submarine.

But the vast majority of nuclear weapons held by both sides are not in this sort of operational ready status. The vast majority of them are in

nuclear storage sites. Those nuclear storage sites may be located very close to the operating base. They may be located more on a regional basis, or they could be a large sort of central stockpile of such systems.

The United States almost two years ago, in the spring of 2010, announced that our total stockpile was 5,113 nuclear weapons. These are both strategic and nonstrategic deployed and non-deployed. The Russians have not revealed a number for theirs, though the numbers you hear in approximations are at least in shouting distance of that, in what the Russians have, though the distribution of our weapons within this are really quite different.

But President Obama said next we conclude a treaty, at least the objective would be to bring under control of the treaty and reduce within the treaty strategic, nonstrategic deployed and non-deployed.

There are various ideas that have been brooded about about this. We have not yet gotten close enough to the negotiations to be now in the U.S. government trying to precisely decide on the manner in which we're going to attack this problem. We are doing -- it's interesting how this word has gotten to the way we talk about the BCC. We keep talking to each other about doing our homework. In Russia, that's *demashnaya robota*. So we talk about whose assignment is to do the homework.

Well, we're doing a couple important homework assignments, if you will, in the U.S. government and in the NATO alliance.

In the U.S. government, we are doing the nuclear posture review implementation or follow-on study, which has been underway since about summertime, and continues and will be completed in the months ahead. And

that is a very important study to provide a basis, and ultimately this study will come through the interagency process at very high levels and go to the President himself, and it will allow the President to then adopt his direction and guidance that he will provide back to the Department of Defense and back to the Strategic Command on nuclear planning, and it also will influence the course of what's possible in terms of our future force posture and force structure.

So that important homework is going to provide the basis for what is an acceptable nuclear posture for the United States, nuclear force structure for the United States, for the deterrence and defense and protection of the United States and its allies, and that will also provide the basis for sort of how much is enough and how much can we reduce.

At the same time that we're doing this internal homework on looking ahead toward our structure and posture, in NATO, they are doing a deterrence and defense posture review. And that's important because the U.S. nuclear capability -- and parts of it in particular that those nonstrategic weapons that are located within Europe are very much a constituent and important critical part of NATO's overall nuclear posture.

NATO did its own new strategic concept in which it continued to endorse the need for having a nuclear component of its overall defense posture. That concept was adopted at a Lisbon NATO summit in November 2010.

In the wake of that, the decision was made to do this deterrence and defense posture review, which is to look at the nuclear, conventional and missile defense forces that NATO needs in order to look toward deterrence and defense out through the rest of this decade and onward.

That work began last summer. It is due to be completed, come through the North Atlantic Council, and be basically endorsed by heads of state when they meet at the next major NATO summit, which is to happen in Chicago in May. So the DDPR -- everything has to have an acronym, of course -- deterrence and defense posture review -- will influence some of these issues.

And within NATO, they've also talked about a final thing I'll talk about. The next steps in arms control are not nearly this question of a negotiated agreement. The Russians do not appear right at this moment to be that interested, particularly with presidential elections there, presidential elections here, to getting underway a new negotiation of as challenging a nature as I just laid out.

So as we look forward to perhaps starting those negotiations within a year or two, we are also looking at different sort of intermediate steps that could be taken. Transparency and confidence-building measures, like information exchange. Could we exchange information on both sides about those total nuclear weapon stockpiles, maybe even more granular information about some of the strategic versus nonstrategic, about possibly the locations?

These are the kinds of things we're thinking about. NATO is thinking about them more in the Euro-Atlantic context than the NATO and European-Russia context. So there are steps that can be taken there.

Finally, the last point I'd make is that Rose's former boss, who's recently just stepped aside -- Ellen Tauscher -- had been chairing and continues to be a special envoy and have responsibilities to help chair a running dialogue or conversation, as we often call it these days, with her counterpart, Deputy

Foreign Minister Sergei Ryabkov.

They've been looking at a series of issues. The Russians have made clear, if we're going to move onto further nuclear reductions, there are a set of issues that need to be addressed, at least in parallel, as this goes along.

The most controversial of those has been the question of missile defense, and that's gotten very much connected to the potential for Russian and NATO cooperation on territorial missile defense in Europe. The two sides are working on that problem.

There are other issues like long-range conventionally armed strike systems. The Russians are concerned about what they believe may well be the weaponization of space. They talk about the need to address conventional arms control issues in Europe. As the CFE Treaty seems to be having run its course in many ways, what are the next kinds of steps for conventional arms control?

So Tauscher -- then Under Secretary Tauscher -- and her counterpart, Sergei Ryabkov, have been meeting periodically, and they have now committed during this year to meet in what are called strategic stability talks.

That macro-term has been used to cover such conversations in the past as well. In this case, it's supposed t be a running set of discussions about some of those neuralgic issues, if you will, and to probably discuss the potential for moving forward and building basically the basis.

So if we have sort of unilateral homework, we have alliance homework, the kind of homework we're doing with the Russians themselves in this step by step process is this set of strategic stability dialogues.

We had a first such sort of major expanded meeting on that matter

in December. We look forward to a next meeting in March, and I can see a whole series of these meetings that are likely to run through the rest of the year.

Well, let me stop at that, and we'll be happy to answer questions.

MR. PIFER: Great. Thank you, Ted.

Okay, let's go ahead and open the floor up for questions. If I could ask, if you could state your name and affiliation, and try to keep your questions short -- we have about 25 minutes for the Q&A session.

MR. BORMAN: Howard Borman, private citizen.

The nuclear deterrence is based on a threat to the support --

MS. GOTTEMOELLER: Oh, the microphone's not on.

MR. PIFER: Is there a way to --

MR. BORMAN: A switch?

MR. PIFER: Just speak up. I think you can do it.

MR. BORMAN: Nuclear deterrence is based on a threat to destroy certain targets with nuclear weapons. What are the targets we are threatening to destroy with our 1,700 deployed strategic warheads?

MR. WARNER: Certainly won't go into any detail. Let me talk a little bit about the overall philosophy there.

The philosophy that's been articulated since the late 1970s and onward in what was called at that time the countervailing strategy had been that one ought to hold at risk a series of targets that the other side values most.

And that has been a wide range of targets, but I really can't get into the specifics on that question.

MR. PIFER: Yeah. Why don't you just go ahead?

SPEAKER: Yes. A Georgetown professor has said that China is hiding its missiles inside a tunnel silo -- they think 3,000 miles big. Do we really know how big China's arsenal is, any idea of its magnitude?

MR. WARNER: I've seen some of the -- I actually know the individual in question. I won't name him, but I did business with him. He was a longtime student of Soviet military affairs, and we worked together on some issues.

There's fair controversy associated with the question of his whole study or the study he and a group of his students did using a lot of open and internet sources.

I was working on the problem of the size of the Chinese nuclear arsenal just today. I don't what an unclassified number is on that at this time. I'd like to give it to you. It's certainly considerable smaller than both the U.S. and Russian. I think in unclassified numbers, you will see numbers in the 50, 100, 150, something in that neighborhood -- perhaps 200. But think of that as compared to the U.S. number given almost two years ago of 5,000, and the Russians are at least at a level of where we are and probably a bit more.

So again, the Chinese nuclear arsenal is certainly at least an order of magnitude smaller than those numbers.

MS. GOETTEMOELLER: The other point I'd like to stress is that in terms of their nuclear doctrine, the Chinese have pursued a much different course from the Cold War doctrines that were worked out by the Soviet Union and the United States, and the legacy of which we're dealing with today.

So I think it's important to bear in mind that the whole premise for

the way the Chinese think about nuclear weapons and their doctrinal approach is very different, and it leads to, I would say, a requirement for smaller overall force structure.

MR. ELLIOTT: And I would add one thing to that. One of the things the U.S. would welcome is a Chinese revelation of the number as United States have done of the number they have, as we would encourage the Russian Federation.

MR. WARNER: The Chinese have characterized their doctrine, just to build on Rose's point, as lean but effective. Some have called it minimum or minimal deterrence, but they've clearly wanted to be able to hold at risk -- and certain Chinese major figures had made different comments about what they might hold at risk to do that.

But they certainly have had, ever since Mao Zedong sort of committed them to being a nuclear capability, in the late '50s on into the '60s, they've had that certain approach of a lean but effective deterrence that can hold at risk probably urban industrial complexes.

SPEAKER: What about the power complexes?

MR. WARNER: I'm not in a position to comment on that. I know that there are differences of opinion by those who study those what it is, but I'm not in a position to be a spokesman on that issue.

MR. PIFER: Jack?

MR. SEGAL: My name is Jack Segal.

First, just a comment to all four people on the stage that they should be complimented for their accomplishments.

MS. GOETTEMOELLER: Thank you.

MR. SEGAL: This is very tough going, and I recall talking about warhead counting rules with Ambassador Ryabkov, and making no progress at all a long time ago. So you've come a very long way when you were talking about telemetry on the website.

My question, though, does go to this question of the number of weapons we are still retaining -- the 5,000 or so on each side and the 1,700 or whatever the number exactly is -- deployed, and the idea that the Chinese feel secure enough with a much smaller number of deployed warheads -- maybe. I don't know -- the facts about China -- I'm not involved now.

But is there a move afoot in this process that gets us down to much lower numbers? When we look at the cost of maintaining 5,000 warheads -- and, you know, really, if we are never going to use that size arsenal, do we need to maintain it only because the Soviets -- excuse me -- the Russians are still maintaining it, and can we agree that there's a more efficient way to do this deterrence?

MS. GOETTEMOELLER: Perhaps I'll start, and then my colleagues from DOD might like to add in. You know, President Obama, from the very beginning of his administration, was very intent on moving in the direction of the total elimination of nuclear weapons. That's what his speech in Prague in 2009 was all about -- in April 2009.

But he really brought that position into the administration, into his presidency from the campaign. He was working those issues even when he was still in the Senate, and, I think, became convinced of the necessity of moving

steadily to lower and lower numbers, and eventually to the total elimination of nuclear weapons.

The President is not impractical about this. He said this is going to take a long, long time. He said it's not something to expect to happen in my lifetime, but he says nevertheless, we must be prepared to move forward in a step by step way to steadily eliminate the number of weapons in our arsenal, through negotiated reductions and also to work to eliminate nuclear warheads overall -- in the meantime, maintaining, as he says, a safe, secure and effective arsenal.

So those two things go hand in hand, and it is, I think, an inherent part of this administration's overall approach to the nuclear enterprise, to nuclear doctrine and policy and force structure.

Ted or Mike?

MR. ELLIOTT: I would add that the military's job is to meet the objectives that were placed before them by the President and the Secretary of Defense. It's easy to think in terms of the large number of weapons we have today or the even larger number of weapons we had 15 years ago, but I would remind everyone that this isn't the first time that we were going to be at 1,550 operationally deployed warheads. We were at that number on the way up, and it doesn't -- it suggests that there are other numbers we can go to.

Important in continuing that journey is the transparency, and in this case, this treaty affords both sides, and to have more confidence in what the strategic environment is they face, and it's going to become important for others in the world to do the same thing, to help it down that journey.

But again, it depends on the environment, and the instructions we're given.

MR. WARNER: Without, you know, breaking arms, patting ourselves on the back, it's worth noting -- I've been interested. I've studied this issue for many decades. The figures I've seen in the last few years have said that at one point, we had 31,000, 35,000 nuclear weapons, the United States, and that the Russians -- I've seen one number that might've been as high as 40,000.

So, I mean, get a sense that we've come down a dramatic way. Our high watermark in the strategic world was probably 11,000 to 12,000 weapons associated with the long-range intercontinental type strike systems. So the remainder must have been in tactical just by logic here.

So we've come a very long way. How far can we go down? Among other things, I do think there's an issue of reciprocity here. We still believe that there ought to be something approximately rough parity between ourselves and the Russians.

But it's a very good question. I have a feeling that some of your speakers later have some opinions on that issue. It's sort of how fast you can go.

I think there certainly is an agreement. The President is very clear that he has an objective in mind, that that very long-term objective -- and I'm sure he would -- my hunch is that he'd like to go as far as the traffic will bear.

And that's why we need to get this homework done, look at it, and then work with the Russians, and see if we can, in fact, take this next step

downward and broaden the scope -- because this will be the first time that we would have taken on the non-deployed tactical world or the non-deployed strategic world. So we have -- it's ambitious.

The one other point I was going to say is if you have a treaty on this -- remember what Mike explained on inspections? The big, new challenge would be you'd have to open to inspection these nuclear weapon storage sites. That's a very sensitive issue. And how would you do it if there was some sort of sampling process or others?

But one of the major figures in the White House on this matter, Jerry Seymour, gave an interview on this a year or so ago, and he was talking about, you know, the challenges of verification that will go with this -- and particularly this question -- not to declaring things fairly easy, it's trying to have inspections that try to see that people are living up to their declared data.

So that's another thing that's going to make -- broadening the scope is going to have real challenges in this area. But we need to go lower, and I know the President is very much committed to do so. We need to then work out a pragmatic set of steps that we can, in fact, undertake with the Russians.

MR. PIFER: Yeah, but, Ted, just to be clear -- I think what you said when you mentioned the nuclear posture review in the follow-on study -- as a result -- as part of that, the President will say, this is what I want to be able to do with my nuclear weapons, and then that then leads to a number, correct?

MR. WARNER: No, the two are interrelated. It's how much is enough, what needs to be held at risk, how do you, in fact, serve all the interests? I mean, the United States -- the only adversary is not -- potential

adversary is Russia. There's other potential adversary. This whole calculus will have to go in.

MS. GOETTEMOELLER: I had one small vignette I wanted to add.

You might have noticed, Mike said, we've been here before. We came up from these numbers. Now we're going back down again.

Just an interesting vignette -- the day we concluded negotiation of the treaty, I asked our colleagues in DOE to provide me some historical data because I wanted to see when that moment was. So they luckily had a chart together, and they gave it to me, and I looked at it, and 1,550 deployed strategic warheads -- last time, that number was in our arsenal was in the late 1950s -- 1956, '57. I can't remember the year off the top of my head, but you may have noticed the talking point that's out there -- that this treaty will bring our deployed nuclear warheads to numbers that we haven't seen since the 1950s, the first full decade of the nuclear age.

And that's where that comes from. We actually did go back and look to see, when was the time when we last had this small a number of strategic nuclear warheads deployed? We still have work to do, obviously, but I think we have managed to really move things along.

MR. PIFER: We have time for two more questions. We're going to take David Hoffman and then David Culp here together.

MR. HOFFMAN: David Hoffman from *Foreign Policy* magazine.

I'd just like to ask you about the strategic non-deployed. I mean, you've talked about this hope for more transparency on the Russian side.

Secretary Perry, 18 years ago, when he created what he called "the hedge," said part of it was due to geopolitical uncertainty about Russia. It's 18 years later. We know a lot more about what's happened in Russia.

Does the administration feel -- do we still need a hedge for geopolitical uncertainty, or just for spares? And if we don't need it for geopolitical uncertainty, is that something that we can go lower on?

MR. PIFER: Hold that thought. David?

MR. CULP: David Culp with the Friends Committee on National Legislation.

Congratulations to the three of you for negotiating and, more importantly, for getting the treaty ratified. Not all treaties get ratified.

Somewhat similar to the previous question, have you and the Russians at all had discussions about speeding up implementation of the New START Treaty?

Currently, it's stretched out over seven years. Certainly there are people in the Pentagon that question why you're spending money to maintain systems you've already agreed to get rid of.

Is there any chance that the Russians and us could speed up implementation of the current treaty?

MR. ELLIOTT: I'll take the last one fast.

Let me talk to your question. The guidance that we've been given is to think through this carefully. These are, in fact, nuclear weapons, and we don't do anything without thinking real hard about what it is.

The policy community is going through a process of determining

what the appropriate mix is as we move forward, and in parallel with that, we're looking at what steps would have to be taken, but I can tell you that while there is some room for acceleration, clearly we gave ourselves enough room during the negotiation on both sides seven years after implementation to get to those levels.

There isn't a lot of room in there, simply because it just takes time. Environmental impact statements would have to be done, for example, for eliminating ICBM launchers. The mechanics associated with altering a ballistic missile submarine, for example -- this is a finely tuned end to end system, and so it just takes time. I'm sure that we'll notify the Secretary of what that minimum time we can do it is in, and march out when he's ready to go.

But I'm not sure there's a lot of room in there to go a lot faster.

MR. WARNER: On the issue of the strategic weapons hedge, the hedge issue is usually linked to two issues.

One issue is geopolitical uncertainty. The other one is technical, the potential for technical failures within the various components of the triad -- the triad meaning ICBMs, SLBMs and bombers.

I believe on the NPR, they talked about the fact that they think that there still are -- both of those dimensions are relevant. I think the technical hedge tends to be the more deterministic issue on what the size of it -- it is one of the issues that's clearly being looked at within the current review because the size of the hedge that is required is part of that calculus about how low can you go.

MS. GOETTEMOELLER: And I would just add on that point, there are different ways that you can address the issue of need for technological

hedge.

One, a way that we have been considering and looking at very seriously, and indeed developing a budget for, is to have a modernized weapons infrastructure, a so-called responsive infrastructure that would be more capable of responding to technological surprise than our current weapons infrastructure -- so that's one of the reasons we've been placing an emphasis on modernizing the weapons infrastructure, and making it more responsive to those kinds of problems.

MR. WARNER: Yes. That modernization, however, even with the very considerable investment that's been committed to that over the next 10 years, will only kick in that aspect in the 2020s.

MR. PIFER: Okay. Well, please join me in thanking our panel.

Some cookies still left right over in the hallway here, but if you could please be back in your seat in about 10 minutes, we will start the second panel promptly at 2:30.

(break)

-- go with our second panel.

During the first panel, I think, you know, we got a very good position from three very senior officials in the U.S. government about how the New START Treaty has been implemented over the last year, and also a bit of a sense where the U.S. government wants to go.

But we're going to use this second panel here to drill down a bit more and think about, you know, what happens now, what comes after New START.

And for example, I think both Rose Goettemoeller and Ted Warner talked about homework, the nuclear posture review follow-on study, and so what we'd like to do is talk a little bit -- what issues might arise in that, and then also, you know, what possibilities might there be for arms control right now, which is admittedly, both here and also in Russia, an election year.

And to help us think through these questions, we've got two very good experts on the question.

First, Jan Lodal, who -- again, you have the full bios -- but served at a number of senior positions in the Department of Defense, including as the Under Secretary of Defense for Policy, where he worked on a lot of these questions back in the Clinton administration.

And then we also have James Acton, who has done a lot of thinking and writing on arms control questions. He's a Senior Associate from next door at the Carnegie Endowment for National Peace.

So, Jan, why don't you start us off, and, you know, in terms of the homework assignments, what are the sorts of questions that are being asked now behind these very tightly closed doors?

MR. LODAL: Well, thank you, Steve.

I'll try to provide a little bit of insight into this very complex process that goes on, mostly in Omaha and Strategic Command and other places as well, where quite a few people are involved, trying to develop the actual war plans that would be implemented should the President decide to undertake a nuclear action, and try to determine how many weapons they need in order to create an operational war plan.

And this was really a very different process than the process those of us who look at aggregate numbers and how much is needed and so forth go through.

Now there's obviously a close relationship between these two, and a lot of what the President's nuclear posture review from last year tried to do was to make that relationship even closer -- in particular, to specify that the primary purpose of these weapons is deterrence.

It came close, the posture review, to saying that the only purpose is deterrence, but they also included reassurance of allies and a few other things that it's hard to argue nuclear weapons don't have any role in doing.

But the posture review said that things should be structured in such a way that the United States could move to a point where the sole purpose of its nuclear weapons was deterrence.

So that means that the people who put together the war plans first and foremost have to decide what is needed for deterrence. We discuss it theoretically in fora like these, but they have to decide specifically what kind of targets do we have to destroy, does timing matter, do we have to destroy them right away if a war breaks out? Do we have to be able to sustain nuclear operations over a long period of time? Does it matter what kind of forces are used on what kind of targets -- lots and lots of complicated questions that they have to decide.

Now the way these issues get decided, which are decided pretty much by warfighters, technical people, can, in fact, determine the limits on what future policy can be, and therefore, it has a big impact. And in many cases, there

are judgments involved.

So this particular process that's going on now -- to my knowledge, it's the first one of its kind, where the President has made clear that he wants to make the final decisions on the key issues associated with these questions. It's been rare for the President himself to get involved at this stage. Usually these plans have been put together, approved by the Secretary of Defense, the Joint Chiefs of Staff, and briefed to the President. But in this case, the President wants real options and wants to look at what's being proposed.

Now let me touch briefly on the major categories of issues that will have to be dealt with. First and foremost is -- and some of you asked questions about this in the first panel -- the target set. What targets should our nuclear weapons attempt to destroy?

And again, the question is, what's necessary for deterrence? What do we hold at risk?

Now when I say attempt to destroy, I'm talking about be prepared to destroy because nobody is proposing a U.S. first strike. We don't rule out the possibility of a first strike, partially because technically, that possibility is going to be there regardless of what we say, but the posture review makes clear that a first strike is not what we're trying to do.

We're trying to hold at risk should we ever be attacked by nuclear weapons certain kinds of targets and enough targets that we can destroy, to make it clear to the other side that they should never have attempted to attack us at first.

Now this depends upon a lot of factors -- intelligence estimates,

who we think might be an attacker. It's a lot different if it's a new missile from North Korea or Iran, from several missiles coming from Russia, who's not an enemy of the United States. None of these states are, in principle. So this is a very difficult thing to calculate. What is the right target set?

Second of all is the question of how promptly can we count on a presidential decision to launch these weapons? This posture review makes it clear that the President wants to move away from prompt launch and move away from relying on being able to launch our weapons before they could be destroyed by an incoming attack, and, in effect, be able to ride out the attack.

And in some ways, these characteristics fight against each other. You may need more weapons if you get rid of prompt launch because you may have a higher risk that, by the time the President made a decision to retaliate, some weapons would be destroyed already.

So the idea here, of course, is to avoid some kind of accidental war, some kind of war that escalates immediately when that's not what had to occur, and, therefore, get away from so-called hair trigger decisions, and give the President the chance to -- and the ability -- to survive long enough to consider what his options are and what's really happened.

The third issue that's raised in the posture review -- but really settled, to my mind, for the foreseeable future -- is this question of the triad having three different types of nuclear forces -- bombers, missiles -- land-based missiles and sea-based missiles, submarine-based missiles.

Now there's a major change in the land-based missiles in that they are all reduced to a single warhead. This is something that some of us have

been pushing for 20 or 30 years. It has a very nice characteristic because it means that if you have approximately equal weapons on the other side and you have only one warhead on each silo-based missile, you can't gain anything militarily by trying to attack them because just for reliability and accuracy purposes, you're probably going to have to target at least two to have a reasonable chance of destroying one on the other side. So the force balance will move against you if you try to attack single warhead missile.

So this is a stabilizing move on our part to reduce the number of warheads on those missiles to one. And that then leaves them pretty much as a hedge against some kind of failure in the other forces, and also as a force that has easier and more reliable -- and perhaps more survivable -- command and control. If you're looking at trying to reduce any need for a prompt launch and there are no longer attractive targets, they become forces that could play in that respect.

Now there really are two other components of our forces. We talked about a triad, but we really have five components. We also have the few tactical weapons that we maintain. President George H.W. Bush unilaterally eliminated about 5,000 of our tactical weapons. We kept a few of them, and they take on, relatively speaking, an increasing importance as the other numbers come down -- the ones that we have committed to our NATO allies and the few others that we keep non-deployed, in reserve, that could be used on aircraft if we so needed that type of a capability.

So this posture review should -- in this process that's going on now, we'll have to consider those weapons as well.

And then, of course, there are the stored weapons, the backup weapons that have been mentioned. And it'll be important to see whether the military commanders believe those weapons play any operational role at all. If they don't, then the number that you need can be determined strictly in terms of maintenance considerations and reliability and so forth, without considering operational factors.

In the George W. Bush administration, their posture actually gave these weapons something of an operational role, and that hasn't been officially reviewed since that time.

So all of these questions will have to be dealt with in this study, and, again, I'll emphasize that it's not an easy task, and we shouldn't belittle the work that the operational command has to go through in order to come up with its recommendations.

At the same time, it's important that there be strong civilian oversight, both in the Defense Department and more broadly in the government, of this process because in many cases, there are judgment factors here that go beyond the pure technical military questions that will have to be addressed.

MR. PIFER: Thanks, Jan.

James, Ted Warner mentioned in the first session that there are these strategic stability -- so there is a dialogue going on between Washington and Moscow. But certainly, by all appearances, it's not the intensity that we had in 2000 and 2009 and 2010, when you had negotiators meeting full time in Geneva.

So I guess the question is, you know, are there things that could

be done now in the arms control world, or are we really thinking about what happens in 2013 after you've had the Russian election behind us and the American election behind us?

MR. ACTON: Thanks, Steve.

Well, I think it's necessary, firstly, to pan out and to think about what each side's -- what the United States' and what Russia's goals would be out of the next round of arms control. And then once you have that long view, you can then start to think about what's possible in the shorter term.

There is a fundamental asymmetry between the two sides' objectives in the next round of arms control. The United States is primarily worried about Russian nuclear weapons. Russia is primarily worried about U.S. conventional weapons.

You've heard a panel of U.S. officials talk about the President's goal of incorporating both non-deployed and tactical nuclear warheads into the next round of arms control, and I don't think I need to add anything to that.

On the Russian side of things, Russia is firstly worried about U.S. conventional weapons that have the capability potentially of destroying its nuclear weapons.

The most obvious example of that is ballistic missile defense. Another example is a U.S. program called Conventional Prompt Global Strike, to develop high precision, long-range conventional weapons.

And in that regard, the Russians also, in kind of informal NGO discussions, some of them sometimes bring up U.S. cruise missile, conventional cruise missiles. Space weapons are relevant in the Russian view because that

enables these high precision, conventional systems.

And occasionally, the Russians bring up the kind of old, thorny topic of antisubmarine warfare.

So that's five topics there.

Another thing that the Russians sometimes say they're concerned about is the balance of conventional forces in Europe. During the Cold War, NATO used nuclear weapons to compensate for its conventional inferiority. The Russians basically say, you know, we do the same thing now. So you're conventionally superior, so if you want us to get rid of tactical nuclear weapons, you've got to do something about conventional forces in Europe.

And then finally, the only type of nuclear weapons that the Russians really care about on the U.S. side or might really care about are these U.S. non-deployed weapons.

And in particular, the Russians say they're worried because the U.S. has these missiles that are not loaded with as many warheads as they could carry, and so the U.S. could upload those spare warheads onto the extra missiles.

The U.S. says, well, let's talk about non-deployed weapons, then. Let's do something about them. And the Russians say, yeah, we'd actually just prefer to limit missile numbers. We don't really want to do verification of individual non-deployed warheads. Let's just limit missile numbers instead.

Let me say that, you know, which issues out of this menu the Russians will actually put onto the table if negotiations ever begin is anybody's guess. I don't expect them actually in practice to demand progress on every

issue, but beyond ballistic missile defense and Conventional Prompt Global Strike that I think are certain to be on the table -- what of the remaining issues they put on and what are bluff is not at all clear to me at this point.

But in any case, there is this asymmetry. The U.S. wants to deal with nuclear. Russia wants to deal with conventional.

So because the two sides will have to be making these tradeoffs across different areas, negotiations are going to be extremely long and difficult. And, of course, each side is limited on what it's willing to deal on. I mean, the U.S. is not willing to accept negotiated limits on ballistic missile defense, for instance.

And on top of that, as Steve says, the politics is deeply inauspicious right now. I think it's very hard to imagine either state in 2012 being willing to, you know, really take a risk on arms control negotiations. So a comprehensive treaty, I think, is a long way off.

There's been some talk in the U.S. about what I call New START Heavy, if you like, which would be New START with lower limits. I think that's a great idea. I think the Russians have absolutely zero interest in that, so I don't really see that going anywhere.

So I think my message is, really, a lot could happen in the next year. Very little, I predict, will happen in the next year.

The discussions between Under Secretary Tauscher and Deputy Minister Ryabkov will presumably continue. Those, I think, are very important for scoping out the issues -- you know, identifying possible opportunities. So I wouldn't, in any way, belittle those, but they're not negotiations.

Another thing that I think could happen is unilateral steps by each side that will avoid making negotiations, if and when they commence, harder. You know, Russia, for instance, has announced it's researching and developing a so-called heavy ICBM. This is a liquid-fueled, gigantic missile with lots of warheads on. Russia's not going to cancel that system.

But perhaps in -- you know, one could imagine the Russians not funding it too heavily, so it would take longer to develop. So there might be some chance of incorporating it into arms control. The problem with this system, you know, is the converse of what Jan was saying about the advantage of single warhead missile -- is these missiles really lack survivability.

Now on the U.S. side, for instance, I'd like to see the U.S. administration making the case much more strongly than it has already that Conventional Prompt Global Strike is this niche system. Yes, there may be utility for it, but the U.S. only needs a relatively small number of these systems, and that might pave the way for some kind of agreement on how to deal with this in an arms control context later on.

Frankly, that's all about I can imagine for 2012.

Looking a bit further forward -- in 2013, perhaps -- I think there are a vast number of informal confidence and transparency-building measures that the two sides could pursue that would advance the goal of a treaty. I think the goal has to be a treaty. You won't get the Russians to agree to a process that doesn't have its goal as legally binding limits of some kind.

But I think it would be very beneficial if the two sides could agree that that goal should not prejudice informal or formal confidence building and

transparency measures along the way. I think it was Ted Warner earlier who mentioned information exchanges. That's one good example.

Let me give you three examples of what I think could be implemented relatively quickly, would help build the way to a further treaty.

First, on tactical nuclear weapons, the single easiest thing you can do is to verify the absence of tactical nuclear weapons at bases where they used to be stored but no longer are. Both sides say there are bases in that category, particularly in Europe, where these weapons used to be stored but no longer are. So let's go in and let's verify that. Let's have mutual inspections to verify that they're no longer there.

For reasons that I don't have time to elaborate, I think that's actually a very good first step on the way to a comprehensive accounting scheme for all types of warheads -- strategic, nonstrategic deployed and non-deployed. But that's a good first step.

Secondly, I'd like to head off this cruise missile issue at the pass. I cannot imagine the U.S. ever agreeing to formal arms control limits on cruise missiles, but nonetheless, the Russians say they're worried that U.S. conventional cruise missiles pose a threat to the survivability of their silos.

I think a useful thing to do would be a joint threat assessment between the two sides, to analyze whether conventional cruise missiles actually pose a threat to silos. One could imagine a very quiet, behind the scenes joint study by the two sides -- not declared to the public at all, but just technical experts working behind the scenes.

Alternatively, the two countries' national academies would

perhaps be a good venue for doing a joint study by technically informed nongovernmental experts.

And finally, I would like to see transparency visits to each side's nuclear weapon production complexes restarted -- note the "re" before the start there. During 1994 to 1998, there was a series of bilateral visits between Los Alamos and Seversk. These worked for the purpose of verifying material security, the U.S. sharing best practice with Russia about the, you know, accounting for plutonium, and keeping it safe and secure.

But nonetheless, in the process of these visits, the two sides, you know, visited exceptionally sensitive areas of one another's nuclear weapon production complexes.

Now as we go to lower numbers, production complexes become relatively more important. Your ability to produce weapons and how quickly you could augment your arsenal becomes as, if not more, important as the number of weapons you have in the extant arsenal.

So as you go to lower numbers, you're going to want to have some idea, perhaps some vague, very rough parity between each side's weapon production complexes.

So I think restarting transparency visits, you know, is a good way of making progress towards that long-term goal.

And as I say, the fact that these visits have happened before, albeit for a different purpose, demonstrates that this is the kind of idea that's actually implementable if there's the political will to do so.

None of these informal confidence and transparency building

measures I expect to see happening in 2012. However, I think with -- you know, after the election, when both sides -- domestic rhetoric on both sides has calmed a little bit, then I think there is a tremendous amount that could be done, that would advance the relatively long-term goal of a new treaty.

Thanks, Steve.

MR. PIFER: Great. Thank you.

Okay, let's open up the floor for questions.

We don't have the microphone. Just project, please.

MR. BROWN: Sure. I wonder if you would be willing to comment on the potential paradoxical relationship between the objective of moving toward because our posture with respect to nonproliferation depends on the assurance to our allies, extended deterrence, which works against moving toward a deterrence-only.

MR. LODAL: Well, let me say that, first of all, I include extended deterrence, which I'll describe briefly for those in the audience who might not be familiar with all of this theological terminology.

This is the deterrence that we provide to our allies. So we have this as a treaty obligation with Japan, with Europe and in other cases, Israel, some places like that.

Our extended deterrent is de facto but not governed by treaty, but in effect, we say, don't build your own nuclear weapons. You don't need them because we'll use our nuclear weapons to deter any nuclear attack on you.

Now there's a subtlety there, which is to deter any nuclear attack on you. We don't assert that our nuclear weapons can deter any attack of any

kind on our allies, and we believe that we and they together, working together, should have adequate conventional forces to deal with conventional threats.

So I think that this gets into the whole question of, you know, why is a path to zero the most sensible approach? Because of exactly what you said. You can't really unravel all of this if you're in a world in which nuclear weapons are seen to have military and political uses that go beyond the purpose of deterring the use of nuclear weapons by others.

Now if, in fact, you could get all states to agree to that purpose and say, that's the only useable purpose for nuclear weapons -- and the United States has come pretty close already in its posture review -- well, in effect, everyone has said, if everyone else will give up their nuclear weapons, so can we.

By the way, the official policy of China is already there because they have a no first use policy, and if you say we'll never use them first, you're saying pretty much the same thing. It's not absolutely precise, but it's pretty much the same thing.

So if you could get into that kind of a situation, you could envision a world in which, if everyone was reducing more or less simultaneously like we're trying to do with Russia now, an adequate deterrent could be maintained until, in effect, the last minute when the last weapons were reduced, and the deterrent could be reduced as you go along because if the other side has less nuclear weapons, you need less to deter the possibility that they might use them.

So that's the concept, I think, for how you get out of this box. It's a long, difficult process, but as long as we are in the box we're in now, and we're

not on a path to zero -- and that requires building a verification regime and all sorts of stuff to get on that path -- well, the incentives for proliferation, in fact, are going to be there, at least in my view -- because anytime one state has nuclear weapons, the one thing that really works is deterrence if you want to protect yourself against that state's nuclear weapons.

So some other state is going to feel threatened that's not already a nuclear power, and they're going to feel very much motivated to develop their own nuclear deterrent. We see this most dramatically with Iran and, to some extent, with North Korea.

North Korea -- right now, South Korea, of course, feels threatened by North Korea, but so far, they're willing to rely on our nuclear umbrella and not build their own nuclear weapons. Would that stay that way forever? It depends on a lot of things.

Iran, there's a lot of states in their region that would be within range of the weapons they have even today, and so if Iran develops a nuclear weapon, can we provide enough of a nuclear umbrella? Will other states that have nuclear weapons come also to share that responsibility of providing a nuclear umbrella? It's tough to do that and, therefore, the incentive for proliferation is there.

So it's kind of a complicated answer. I apologize for that, but you get to the heart of the issue of the nuclear dilemmas that we face, and there's no simpler answer to it in my view.

MR. ACTON: Let me make a couple of points about extended deterrence.

One of the clichés from the Cold War is that deterring your adversaries is much easier than assuring your allies. Allies tend to believe that much more is necessary to deter their adversaries than the United States believes is necessary its allies' adversaries.

So there's a gap between extended deterrence and assurance. And I think the goal of policy has to be to narrow that gap through very careful, intensive dialogue with allies.

I think a classic example of that was the Obama administration's handling of the Tomahawk land attack missile. This was a sea launch cruise missile. It was the last sea launch cruise missile in the U.S. arsenal, and it was a system that hadn't been deployed since 1991 when it was in storage, and in the run up to this year's 2010 nuclear posture review, there was discussion about whether to decommission it.

The Strategic Posture Commission, which was a Congressionally appointed commission, in 2008, I think it was, warned very, very strongly against dismantling TLAM-N. It said Japan will be very, very worried, and we shouldn't do this.

Well, what the Obama administration did was it sat down. It invested a lot and very high level diplomatic attention, engaging with the Japanese government, and explaining to them why, in the view of the Obama administration, dismantling TLAM-N would not undermine the security of Japan.

And after a lot of very, very hard work and effort, I think it was clear that the Japanese government bought into that. I've been a lot of time in Japan, and I have never found a Japanese official say that they are -- it was a

problem that TLAM-N was dismantled. You will find voices in the NGO community who are very unhappy about the dismantlement of TLAM-N. I've never heard a serving official say even in private that they were unhappy about the dismantling of TLAM-N.

And that's how I think you have to handle these extended deterrence issues. You have to really engage with allies, and convince them of your point of view, that dismantling such and such a system or such and such a number of weapons won't undermine their security.

And incidentally, I mean, I think in Steve's paper on the next steps after New START, he mentioned, I think, the fantastic suggestion of reconstituting the -- was it the special consultative group that was set up to engage with allies during INF negotiations. I mean, I think that's the way of handling this issue.

MR. PIFER: I might just add to that, I think you're exactly -- there is this tension between reductions and how do you maintain the confidence on the part of our allies in the extended deterrent?

And just to build on what James said about the difference between deterrence and reassurance -- because I think you're seeing this -- and it's going to be playing out in the course of the deterrence defense posture view that NATO's doing and in the coming years of NATO, where on the one hand, right now, from unclassified sources, we believe there are about 200 American nuclear bombs based in five countries in Europe, as the American nuclear presence in Europe.

I think if you talk to people in this town and said, do we believe

that those weapons are necessary in Europe for purposes of deterring an attack on our European allies? The former vice chairman of the Joint Chiefs of Staff was asked that question, and he said these weapons have no military utility, in that they cannot do anything that we can't do with either U.S.-based strategic forces or conventional capabilities. And I suspect if you took a poll around town, most people would say we probably don't need to have those weapons there.

But there's also a recognition that NATO is not just the United States. It's 28 independent nations, and there's a recognition that a number of those allies are not so comfortable, that they still feel that the nuclear weapons, even though they may not have military utility, still have political utility as symbolized in the American commitment and have deterrent value in that sense.

So while there may not be a sense that they have to be there for deterrence per se, I think that there's a strong view within Washington that you have to take account of the assurance concerns of the allies. And this gets back to James's point, that if you're going to draw down that nuclear presence or perhaps openly eliminate it, what are the other mechanisms to assure allies that, in fact, their security will be protected?

And I think some examples -- missile defense, you know, may be one way, although perhaps not in the way that missile defense is probably not a direct substitute for nuclear weapons. But for example, missile defense will mean the presence of the American military forces -- relatively small contingents in Poland and Romania under the phase adaptive approach.

You know, my sense is that for those governments, that American military presence will be all for a degree of reassurance. It may not replace the

reassurance that nuclear weapons provide, but there may be some mechanisms that will allow you to begin to reduce some of this friction between the two elements you described.

MR. LODAL: Could I add one point too, just to show how difficult all of this is?

Returning to the question of South Korea -- the United States has never taken off the table, so to speak, the possibility of using nuclear forces against a North Korean attack on South Korea. North Korea maintains a huge force -- 20 miles, I guess it is, from the edges of Seoul across their border. And it would be very difficult with conventional forces for the South Koreans to repel that invasion as it is now.

And the South Koreans have come, over a period of -- well, since the Korean War -- to rely on the nuclear umbrella of the United States to give them some confidence that that war wouldn't happen.

Now that nuclear umbrella used to include a lot of nuclear weapons in South Korea, all of which were eliminated when President Bush, 41, eliminated the tactical nuclear weapons. Now that took some real diplomatic doing to make sure that that didn't upset our alliance with South Korea.

Subsequent to that, there have been reductions in the American ground force presence in South Korea, further exacerbating this problem.

So if you read the nuclear posture review very carefully, the United States provides certain no first use pledges and so forth. They don't apply to North Korea because the words are very carefully written so that we do not take that off the table at this point.

And that clearly has got to be, in my analytical view, one of the reasons why the United States could not say that deterrence of nuclear attack is the sole purpose of our nuclear weapons -- because in that case, and perhaps in some other cases, we didn't feel diplomatically that we were able to take this possibility of using nuclear weapons against a massive conventional attack off the table.

MR. PIFER: Okay. Back in the back?

SPEAKER: Thank you. Just a quick question. Thanks, Steve.

How do you view these initiatives in light of the military reforms going on in Russia -- because, just from my perspective, a lot of our interests and our initiatives further in arms control seem completely disconnected with what's going on with Russia's conventional forces.

What I'd like to hear is, why do you believe Russia would choose to pursue any of these initiatives with us, especially before any agreement on missile defense?

Thank you.

MR. ACTON: Well, I mean, the short answer is, I don't expect Russia to pursue a lot of these agreements without a suitable balanced quid pro quo. I mean, you know, I recognize that the U.S. has its security concerns, Russia has its security concerns. I think, by and large, both sides' security concerns are partly genuine and partly manufactured, as a kind of negotiating tool.

So, you know, I hope the two sides can have a -- you know, successfully trade off across the two domains. I mean, I said at the beginning

that, you know, the U.S. is predominantly concerned with Russian nuclear weapons. It wants concessions on that area. Russia is predominantly concerned about U.S. conventional weapons. It wants tradeoffs on that area.

I don't necessarily predict that these very, very difficult tradeoffs will be possible, but I think I am clear that unless, you know, each side respects and addresses the other side's concerns, nothing much is going to happen in the future of arms control.

And if it wasn't clear from my talk, I have to say I'm not terribly optimistic about the next two or three years -- neither am I completely pessimistic, but it's going to be very, very tough going.

MR. LODAL: I would just add on this that I've spent a lot of hours, like everybody, perhaps, that you've talked to today in the room, with Russian officials -- very senior Russian officials, negotiating arms control. And I think this is something we have to learn how to do together. Again, in this new world, we've done it successfully in the past, and now we've moved forward with this New START.

That being said, I think right now the burden is on Russia to move this forward. Russia has got itself in a real bind with its doctrine and its statements.

On the one hand, Russia accepts and acknowledges that the west is not a threat, the United States is not a threat. On the other hand, their rhetoric continues to be very strong about NATO and NATO expansion and NATO threatening Russia, and very strong about American missile defense threatening the Russian deterrent, and a bunch of things like this, which really just have no

basis in fact, and there's no military capability there to do these things that Russia sets forth as the threats that prohibit Russia from agreeing to further arms control reduction.

So I see a whole lot of what's going on now as being the result of internal Russian politics. Yes, the Russians' conventional forces are being restructured, are much less, but they can certainly handle any real threat that Russia might face today.

But by keeping this very large nuclear force and putting forth these reasons why this very large nuclear force has to be like it is until the United States makes other changes in the fairly small amount of effort we're putting into missile defense in Europe and so forth, I think isn't going to change until this internal problem inside of Russia -- political problem -- gets changed, because the substance isn't really there.

MR. PIFER: James, let me follow up on that question and ask you -- make a couple points and see if you think I'm being overly optimistic, because I think there may be a couple of incentives the Russians might have after 2012 to look at nuclear arms reductions above and beyond these other issues.

And one is, if you read -- I mean, actually some Russian analysts are concerned that even under the New START numbers -- whereas I think the U.S. military plans to be right at the 700 deployed strategic delivery vehicles allowed by the treaty and the 1,550 deployed strategic warheads -- some Russian analysts are saying Russia can't, because a lot of their systems now are old, they're going to come out of service. And they've just announced they're going to have, I guess, two new submarines at sea, beginning next summer, with

missiles on board, that at least one Russian analyst says that the Russian numbers could actually come down to about 1,000 to 1,100.

The second area where I think Russia may have an interest is this question of non-deployed warheads. And it's not just that the United States has more non-deployed warheads than the Russians do in the strategic sense, but if you look at the -- most, if not all, of the intercontinental ballistic missiles on the American side are going to have fewer warheads than they can carry.

So for example, the Minuteman warhead is, I think it was -- Mike Elliot said will carry a single warhead, but in fact, it can carry three. I think the average Trident missile will carry four or five warheads, but they can carry eight.

So you could put these warheads back on if the treaty broke down, and the Russians don't have that capability because they don't have the empty spaces.

So how much of an incentive does that give the Russians, and how does that play off against their other concerns on missile defense and conventional?

MR. ACTON: Well, I mean, in private, you know, this is -- dealing first with this non-deployed issue. I mean, this is very much the argument that everybody on the arms control community, governmental and nongovernmental, has said to the Russians. You're worried about the U.S. upload potential. So let's do -- you know, let's deal with that problem by dealing with U.S. non-deployed warheads. So I think that would be in the Russian interest.

What Russians say when you say that is that kind of verification system would be too intrusive for us to bear, and we would rather deal with this

by limits on missiles. We want to limit the number of missiles and, in that way, limit your upload potential.

I think this is unfortunate. I think limits on non-deployed warheads would be in Russia's interests, and I think there's a potential quid pro quo for limits on tactical. But I haven't seen a huge amount of interest in that idea on the Russian side, although I think it's an extremely good idea, and one that I would hope the Russians would take seriously.

Again, on, you know, the fact that Russia's forces, because of, you know, dismantlement of aging weapons, are dipping down in numbers -- again, I think -- and I think I said this explicitly -- I think from my perspective, both sides ought to be able to agree to the essentially New START Heavy, with the New START limits on lower numbers.

Again, from my own conversations from the Russians, I've seen very little interest in that. And what they say is, well, we're building this new heavy ICBM, which is going to be able to hold 10, 12, however many warheads it will be. That will enable us to build up our forces very quickly and very cheaply. Unfortunately, it will be in a very destabilizing way at the same time, but nonetheless, that's the kind of Russian response to, what are you going to do about the fact that your forces are dipping down below the threshold?

So, you know, I think both of those are ideas that I personally like and personally think would be very good ideas. I'm just not seeing -- I think other people, you know, haven't seen very much interest on that from kind of track two discussions with Russian interlocutors.

MR. LODAL: Could I say that this issue of the tactical nuclear

weapons is really key? And what goes around, comes around.

I recall -- I think it was President Nixon's last summit meeting, when we were -- I was there with Secretary Kissinger and President Nixon, when we were surprised by Leonid Brezhnev handing over a big chart which showed thousands of American tactical weapons deployed in Europe, all aimed at Russia.

And I was given the job to write a paper explaining to them why this wasn't a threat to Russia. Well, that was a hard thing to do, actually.

And now it's on the other side -- not that the Russian tactical weapons are aimed at and can hit the United States, but they're aimed at and can hit our European allies, to whom we have a formal treaty, extended deterrence commitment. And so we are meant to treat them as if those things were threats to us.

So this is another reason why looking at the total number of warheads, which would deal simultaneously with this question of non-deployed strategic weapons and tactical weapons -- which, really, when they go off, do just as much damage as the deployed ones, and if there were a period of confrontation that was extended, that led up to some kind of real risk of nuclear war again with Russia -- and there would have to be a period that was quite extended. These weapons could be put into service fairly rapidly on both sides. So it's a real risk.

And furthermore, certainly the Russian tactical weapons and, to some extent, our non-deployed strategic weapons are more susceptible to diversion and theft and falling into the hands of terrorists than the ones on

operational systems, and that's a major concern for us as well.

So all those things are concerns, and I would hope -- we have very much of a common interest here in dealing with this problem. It is not just our interest or their interest. It's a common interest, and so hopefully the political situation will evolve to a point where that common interest can come to the fore.

MR. PIFER: Okay. Question back here?

SPEAKER: Does anybody really think that there is a realistic threat over the next four or five years that the Russians would withdraw from New START over something like missile defense?

And can anybody comment generally on what is driving their paranoia? I mean, I -- maybe it's just not that I don't understand a lot about what goes on in there and their political situation. But it just seems like a major obstacle to making any further progress over the next several years is on the Russian side, and is -- will Putin's reelection -- or is there anything else in the offing that gives you any optimism that we can cut through this paranoia on the part of the Russians?

MR. ACTON: I think it's helpful to recognize, in answering that question, that Russia's not monolithic, and, you know, different constituencies in Russia dislike and have different concerns about missile defense.

The kind of technically informed -- what the technically informed community says is that we know that what's being deployed right now poses no threat to our deterrent.

But what we're concerned about -- and I'm quoting -- this is from memory. There was a paper that was written in Russian by kind of four very,

very senior and experienced Russians, including two former generals of the Strategic Rocket Forces. And what they said -- and I quote -- is, “If after Obama, the Republican party returns to power, then in 2020, with massive deployments of land-based, sea-based, space-based missile defenses, then at lower numbers, our deterrent could be seriously undermined.” That’s almost exactly quoting.

So that, I think, is what the concern is, that the U.S. has never said, this is the end point for missile defense. And with multiple systems, there are some very serious analysts who do worry about a potential threat to the survivability of their forces.

And what they further say is the threat is compounded by these high precision conventional weapons. You know, clearly ballistic missile defense can’t annihilate a Russian first strike on the way over. But if with conventional weapons, the U.S. took out most Russian nuclear weapons, then those that were left to be fired in retaliation could be taken out with BMD.

You know, let me say, I think personally this is fantastical, for a number of different technical reasons. I think BMD is very unlikely to work against highly sophisticated missiles with advanced countermeasures like the Russians have -- and neither do I think that high precision conventional weapons are likely to be effective against mobile missiles.

That said, I also think Russian concerns on this score are genuine. And I think alleviating them is likely to be very difficult. I would also say that these Russian fears mirror almost precisely U.S. fears from the late 1970s and early 1980s, when the U.S. was very, very worried about the so-called window of vulnerability, in which the Russians would be able to preemptively

destroy U.S. nuclear weapons.

So, I mean, the two sides have kind of switched places in this regard, but Russian fears actually, I think, look remarkably like historical U.S. fears.

You know, I think other constituencies in Russia are not worried about missile defense, but find it a very useful political bargaining chip to put on the table. I think there are some people -- there's a belief -- I think Russia has a much greater belief in the U.S. technical skills and technical ability than the U.S. has in its own technical skills and technical ability.

So I don't have a single clean answer, but I think there's a series of overlapping different issues.

MR. LODAL: I agree with everything James has said.

I would reiterate, though, that I believe that this stems predominantly from what's happened to the Russian conventional forces. I wish Ted Warner were still on this stage because he's an actual expert on this.

And I may misstate this, but the Russian conventional forces are in such bad shape that I think the Russians have come to believe that you can substitute nuclear forces for conventional forces, and that you can deter a potential conventional attack against yourself with some kind of superiority of nuclear forces. And that's one of the reasons I think they maintained this large inventory of tactical nuclear weapons, even though it's just not quite clear what the conventional threat is there that they're worried about.

But I think they're very much worried about the weakness of their conventional forces. They're taking some steps to try to resolve that. I think

they're making some progress there, so perhaps that will reduce their paranoia.

I personally don't believe that nuclear forces can significantly deter conventional warfare when both sides have nuclear forces. I think they offset each other, and so I don't think this is a real impact, and I think it's very hard to think through a scenario in which these nuclear forces would help them in that respect.

But I think they believe it, and they believe, therefore, that unless they can get the U.S. to agree to things that they see as favorable in the nuclear area, they're better off just staying where they are.

MR. PIFER: And I had just two very brief comments.

First, I think it is unlikely that the Russians will, at some point, withdraw from the New START Treaty. I think at the end in 2010, when they signed the treaty, they looked at the prospective American plans for missile defense and said, even if these things go as far as we fear they might go, in 2021 when the treaty expires, we're still going to be in a position where it's not a threat. It's what may happen afterwards.

The second point is just the paranoid, I think, in Moscow is fueled in part by an incredible -- some might say overestimation of American technical capabilities.

And I go back to when I was working on arms control in the U.S. government back in the 1980s, including when I was serving at the American Embassy in Moscow in 1986 and '87, when there was this palpable fear on the part of the Soviet Union that the Strategic Defense Initiative announced by President Reagan in 1983 was going to put them out of the ballistic missile

business, and people thinking in five or six years.

I think by 1987, you would be running into people in Moscow who said, no, this really is rocket science. It's very, very hard to do.

But I think there is this tendency on the part of a fairly significant part of the Russian officials who follow this to look at American plans and say, the Americans really can do that and then some.

So right now, they say -- when they look at the phased adaptive approach, they say phases one to three aren't a problem. We're really worried about phase four, but then you have others saying, what about phases five, six and seven, which, you know, may coming be out there. So I think that makes the paranoid even more difficult to deal with.

SPEAKER: I'm from Georgetown Law at the Federal Legislation Clinic there.

Kind of speaking to what you were just talking about, with Russia's lowered conventional weapons capabilities maybe being compensated for by existing nuclear weapons, or perhaps them putting faith or confidence or pride in their larger numbers of tactical nuclear weapons versus the United States -- how hard is it going to be, let's say from Russian domestic political concerns, wanting to maintain the sort of great power status or wanting to sort of still have some superiority over the United States -- how hard does that make for them to commit to any further reductions in the future?

Maybe on the flip side from the United States' perspective, how difficult it is politically for any president to seemingly weaken the United States, vis-à-vis Russia or other possible adversaries.

I wondered if you could maybe speculate or speak to how those sort of political difficulties could impede any further progress on reducing tactical nuclear weapons.

MR. LODAL: Well, I think you raise some very good points. I think it will be difficult for an American president to take steps that would lead to a major difference. We're down now to the kinds of levels where cost isn't a huge consideration. I don't mean to belittle the cost of these forces. It's not trivial, especially in a time when we're looking for every possible way to save some money.

One shouldn't belittle a few tens of billions of dollars here and there, but that's what we're talking about. We're not talking about hundreds of billions at the margin with these forces.

So I think there's very little incentive for an American president to let things get a long way away from parity, even though I, like many others, have written and argued extensively against the concept of parity as being terribly relevant in the nuclear age. I think it is a political reality, and we have to live with that.

On the other hand, I do think that this nuclear posture review makes it clear that the United States is very prepared to change not only its nuclear posture but our approach to nuclear weapons all together.

So I think there's a lot the United States can do, while, as the president has promised, maintaining a strong nuclear deterrent in the way we deploy our nuclear forces, in what we're willing to cooperate on and the openness with which we approach this process.

If we can reach some agreement with Russia on a really workable, cooperative scheme on ballistic missile defense which is mutually beneficially, step by step, these things, I think, can begin to break through this difficulty that you correctly identified.

I also believe that there's plenty the United States can do to try to deal with some of the larger questions that face all of us -- proliferation, nuclear terrorism, uncontrolled fissile materials, which could be used to make bombs and so forth -- that don't deal with this particular issue of numbers between the U.S. and Russia.

And I personally would hope very much that we accept the reality of where we are on that and the reality of what the political situation is and don't let the difficulties there keep us from making progress in these other areas which aren't so directly tied to the complicated political questions that you raise.

MR. ACTON: Very briefly -- I mean, just let me emphasize one thing.

You kind of said it would be very hard for a U.S. president to do something to make the U.S. weaker. But, of course, arms control is not about weakening yourself. Arms control is about building mutual security cooperatively.

Now that sometimes is a very hard argument to make domestically. I mean, there's no better example about that than with ballistic missile defense. But at the end of the day, I mean, the best argument for ballistic missile defense cooperation is that the Russians have radars that have better access or would provide the United States with better access to Iranian ballistic missile launches than any radar the U.S. has itself.

So those are the kind of arguments that I think have to be made in a domestic context. And indeed, you'll notice the administration's strategy for New START ratification was to say, this treaty by itself makes the U.S. more secure. Russia could say the same thing.

So, you know, I mean, I completely agree with you. The domestic politics of all of this is extremely difficult, and I think to some extent, you have to be able to make -- it has to be true that every step in arms control you take enhances mutual security. And you have to be able to make that argument.

MR. PIFER: Okay. Last question?

MR. THIELMANN: I think it was either James or Steve -- Greg Thielmann, Arms Control Association -- you had acknowledged that Russian strategic forces may fall significantly under the New START ceilings.

I'm wondering what you think about the idea of the U.S. as a unilateral confidence building measure, allowing our own operational force levels to go down not below the actual Russian levels, but within this New START framework to significantly below the 1,550.

MR. ACTON: I'd never thought about it in that way before, and I think that's really interesting. You know, the difficulty would be -- I think firstly, there would be a domestic politics difficulty.

The other difficulty would be, if the Russians are still committed to building a heavy ICBM, which would enable them once it's online to build up their force very rapidly. It would potentially hard for the U.S. to go down, knowing that Russia was developing a system that would allow it to go up rapidly again.

Now the U.S. still has a lot of upload capability, which it could

potentially match with that. So it's one of those ideas I kind of feel I need to think through more fully. I mean, I think it's -- I had never thought about it in that way before, but those are just kind of my initial reactions. I think it's a really interesting idea, doing it that way rather than any treaty-bound framework.

MR. LODAL: I think that if some reductions made sense for unilateral purposes, that having the Russian forces below the limit would open some space to consider that.

But I think that's the only situation in which the United States is likely to, or even should, take such steps. We need to remember that in the -- back to the bugaboo of the tactical weapons. The Russians have -- nobody really knows because they never met their obligation to give us an accounting of those weapons, but at least a 4:1 and maybe a 5:1 or 6:1 advantage in deployed operational tactical weapons. We're not talking about strategic reserves stored, needing to go get them and reactivate them and maybe fix them up. These are ready to go weapons. They got some more that are stored and all that also, but, you know, they got a lot of those things, and every one of those things is ready to go, aimed at our allies in Europe.

And so I think there's a broader balance here that we had to accept as well when we accepted this New START Treaty, by leaving all of that stuff out, and they had to accept leaving out our non-deployed and all of that.

So I think it's a little hard to upset that balance there, and a relatively small reduction below the total number in the Russian strategic deployed forces isn't the whole picture.

MR. PIFER: Okay. Well, unfortunately, our time's over, but let me

ask you all to join me in thanking our panelists.

* * * * *

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.

Carleton J. Anderson, III

(Signature and Seal on File)

Notary Public in and for the Commonwealth of Virginia

Commission No. 351998

Expires: November 30, 2012