

HEARING TO RECEIVE TESTIMONY ON IMPLEMENTATION OF THE NEW START

TUESDAY, JULY 20, 2010

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

The committee met, pursuant to notice, at 9:38 a.m. in room SD-106, Dirksen Senate Office Building, Senator Carl Levin (chairman) presiding.

Committee members present: Senators Levin, Lieberman, Reed, Bill Nelson, E. Benjamin Nelson, Udall, Hagan, McCain, LeMieux, Brown, and Collins.

Committee staff members present: Richard D. DeBobes, staff director; and Leah C. Brewer, nominations and hearings clerk.

Majority staff members present: Madelyn R. Creedon, counsel; Richard W. Fieldhouse, professional staff member; and Thomas K. McConnell, professional staff member.

Minority staff members present: Joseph W. Bowab, Republican staff director; Christian D. Brose, professional staff member; and Daniel A. Lerner, professional staff member.

Staff assistants present: Christine G. Lang, Hannah I. Lloyd, Brian F. Sebold, and Breon N. Wells.

Committee members' assistants present: Christopher Griffin, assistant to Senator Lieberman; Carolyn Chuhta, assistant to Senator Reed; Nick Ikeda, assistant to Senator Akaka; Ann Premer, assistant to Senator Ben Nelson; Rob Soofer, assistant to Senator Inhofe; Brian Walsh, assistant to Senator LeMieux; Scott Schrage, assistant to Senator Brown; and Ryan Kaldahl and Brandon Milhorn, assistants to Senator Collins.

OPENING STATEMENT OF SENATOR CARL LEVIN, CHAIRMAN

Chairman LEVIN. Good morning, everybody. I'd like to welcome each of our witnesses this morning. We have with us three very distinguished, dedicated public servants: Dr. James Miller, the Principal Deputy Under Secretary of Defense for Policy; Mr. Tom D'Agostino, the Administrator of the National Nuclear Security Administration; and General Kevin Chilton, Commander of the U.S. Strategic Command. It's good to see you all again.

With the New START Treaty which was signed this last April, a nuclear verifiable arms control treaty would be put back in place. Today we're going to focus on how the New START Treaty, if ratified, will be implemented by the Department of Defense and the National Nuclear Security Administration.

There are many questions about how this treaty will be implemented. These include the following: Does the reduced force structure required by the new treaty meet the military requirements to maintain nuclear deterrence for the United States and for its allies? How will the force structure be shaped? In other words, how will the requirements in the new treaty for reductions in delivery systems and launchers be implemented? Will implementation of the New START Treaty constrain the Defense Department's programs and plans for missile defense? Can the NNSA carry out its responsibility to maintain a smaller stockpile of nuclear weapons so that these weapons under the New START Treaty—so that these weapons again remain safe, secure, and reliable? Will the ability of the directors of the National security labs to propose any and all options they believe are warranted to maintain the safety, security, and reliability of the nuclear weapons be preserved?

Last week, we heard from the lab directors that they feel that they are not limited in their ability to explore all options. On the contrary, they said that they have the flexibility and indeed it is their responsibility to propose any option that they recommend.

The Nuclear Posture Review says that the full range of life extension options should be studied, but that in deciding which life extension options should move to the engineering phase the Nuclear Weapons Council should give preference for refurbishment or re-use. What does that preference mean from an implementation perspective and will this have any impact on the long-term ability to maintain nuclear weapons safe, secure, and reliably, the reliability?

We heard from the intelligence community last week that the New START and the old START treaties have different approaches to verification. Today we will hear from our witnesses as to whether this treaty can be verified through the monitoring activities of the intelligence community utilizing the verification provisions of the new treaty as well as national technical means.

Senator McCain.

STATEMENT OF SENATOR JOHN MCCAIN

Senator MCCAIN. Thank you, Mr. Chairman. I thank our distinguished witnesses for their service and joining us today.

As I've stated before, I've been a supporter of previous bipartisan efforts to reduce our nuclear weapons in step with the Russian Government. Many of us have concerns about the New START Treaty's methods of verification, its constraints on ballistic missile defense, and the accompanying plan for modernization of both the nuclear stockpile and our nuclear delivery vehicles. It's my hope that over the course of our hearings Congress will receive both the assurances and the funding commitments necessary to overcome these concerns.

Given this treaty's significant implications for our national security and the multiple committees that have direct oversight responsibilities, the Senate needs to move thoroughly to consider this treaty and all of its critical components, and obviously we don't want to rush our deliberations to meet an arbitrary deadline.

We have yet to receive critical documents necessary for this committee and the full Senate to make an informed judgment of this

treaty. Specifically, the administration has yet to provide the treaty's negotiating record, including the negotiating history dealing with the ambiguity of New START's preamble with respect to strategic defensive weapons and the contradictory statements issued by the United States and Russia on the meaning and legal force of that language.

This request for the treaty's negotiating history is not unprecedented. The Senate has previously sought and received access to the negotiating history for major arms control treaties between the United States and the former Soviet Union, such as the 1972 Anti-Ballistic Missile Treaty and the 1987 Intermediate-Range Nuclear Forces Treaty. To enable the Senate to fully fulfil its constitutional duty to provide advice and consent on New START, the Obama Administration should give the Senate access to the negotiating records.

Last week the House appropriators chose to fund coveted water project earmarks, but not to fully fund the President's fiscal year 2011 request for modernization of the nuclear weapons complex. There are already concerns about the adequacy of the President's plan for meeting our full recapitalization and modernization needs, and this lack of commitment by House Democrats to at least meet the President's request is troubling.

I look forward to hearing from all of our witnesses if they're concerned by this cut and if they intend to recommend that the President veto any funding bills that do not meet his funding request for modernization of the weapons complex.

During this committee's hearings last week with the lab directors, it was clear that some of these professionals have significant concerns regarding the administration's decision to discourage the replacement of warheads as an option for extending the life of our nuclear stockpile. In fact, General Chilton, I'm sure you weren't happy about the fact that I quoted you and quote you again today when you said: "We should not constrain our engineers and scientists in developing options on what it will take to achieve the objectives of the stockpile management program and let them bring forward their best recommendations for both the President and for the Congress to assess as to what is the best way forward."

We've been told by the Secretary of Defense and the Secretary of Energy that supplemental guidance for the Nuclear Posture Review has made it clear that all life extension efforts should be pursued. However, it's not clear that such guidance has been issued. It is essential for the President to state that his administration should encourage and pursue all modernization options achievable without testing or the establishment of a new military characteristic.

These issues and others need to be resolved and clarified before the Senate can in good faith and consistent with its responsibilities make a considered judgment on this important matter. Today's hearing is an additional opportunity to discuss the implications of this new treaty and its supporting documents, including the Nuclear Posture Review, the 1251 report, the National Intelligence Estimate, and the stockpile stewardship and management plan.

The treaty will also have implications on our nuclear force structure and I look forward to hearing additional details on the composition of our strategic forces from our witnesses this morning.

I thank all of you again for your service and for appearing here today.

Thank you, Mr. Chairman.

[The prepared statement of Senator McCain follows:]

[COMMITTEE INSERT]

Chairman LEVIN. Thank you, Senator McCain.

Dr. Miller.

**STATEMENT OF HON. JAMES N. MILLER, PH.D., PRINCIPAL
DEPUTY UNDER SECRETARY OF DEFENSE FOR POLICY**

Dr. MILLER. Mr. Chairman, Senator McCain, distinguished members of the committee: Thank you for the opportunity to testify today. It is a great pleasure to join my colleagues Tom D'Agostino and General Chilton in discussing the New START Treaty. I'd like to summarize my prepared statement and ask that it be entered into the record in its entirety.

Chairman LEVIN. It will be.

Dr. MILLER. And I'd like to make just six key points in summary. First, the New START Treaty will strengthen strategic stability with Russia and reduce nuclear force levels. With 1,550 accountable nuclear warheads, the United States will be able to sustain effective nuclear deterrence with an assured devastating second strike capability. The administration plans a robust triad of 700 deployed ICBMs, SLBMs, and nuclear-capable heavy bombers. We plan to retain all 14 Ohio-class SSBNs and deploy no more than 240 Trident II SLBMs at any one time. We also plan to retain up to 420 of the current 450 Minuteman III ICBMs, each with a single warhead, and we plan to retain up to 60 nuclear-capable B-2A and B-52H heavy bombers, while converting remaining nuclear-capable B-1B bombers and some B-52 bombers as well to a conventional-only capability.

As noted in the section 1251 report to Congress, DOD plans to spend well over \$100 billion over the next decade to sustain existing strategic delivery system capabilities and modernize strategic systems for the future.

Second, on verification, the New START Treaty's verification provisions will increase our confidence in the numbers and status of Russian nuclear forces. In fact, as Secretary Gates has noted, one of the great contributions of this treaty is its strong verification regime. The 18 annual on-site inspections are a linchpin of the treaty's verification framework. They will work synergistically with other elements of the treaty, including the following: extensive data exchanges on the characteristics and locations of ICBMs, SLBMs, and nuclear-capable heavy bombers; unique identifiers associated with each missile and heavy bomber; a requirement to report any changes in the status of strategic systems through timely notifications; and provisions for non-interference with national technical means of verification.

Without the treaty and its verification measures, the United States would have much less insight into Russian strategic forces, thereby requiring our military to plan based on worst case assump-

tions. This would be an expensive and potentially destabilizing approach that this Nation should not accept.

Third point: U.S. force structure plans under the treaty will further strengthen deterrence of Russian cheating or breakout. Because the United States will retain a robust triad of strategic forces, Russian cheating or breakout under the treaty would have little effect on the assured second strike capabilities of U.S. nuclear forces. In particular, the survivability and responsiveness of strategic submarines at sea and alert heavy bombers would be unaffected by even large-scale cheating.

In addition, the United States would be able to respond to Russian cheating or breakout with the ability to upload large numbers of additional nuclear warheads on both bombers and strategic missiles. The United States will therefore be well postured under New START to deter any Russian attempt to gain advantage by cheating or breakout.

This of course does not mean that Russian cheating or breakout is likely or that it would be acceptable. If there were any signs of Russian cheating or preparations to break out from the treaty, the United States would first raise this matter in the Bilateral Consultative Commission established under the treaty and, if not resolved there, at higher levels, and then would have other courses of action following that if necessary.

Fourth, the treaty does not constrain our ability to develop and deploy non-nuclear prompt global strike capabilities. DOD is currently conducting an in-depth analysis of non-nuclear prompt global strike. However we have concluded at this point that any deployment of conventionally armed ICBMs or SLBMs with a traditional ballistic trajectory, which would count under the New START Treaty's limits, would be limited to a niche capability which could easily be accounted for under the treaty, while retaining our nuclear triad.

DOD is also exploring the potential of conventionally-armed long-range missile systems that fly a non-ballistic trajectory, for example so-called boost-glide systems. Such systems would have the advantage that they could steer around other countries to avoid overflight issues and they would have flight trajectories distinguishable from an ICBM or SLBM. As we made clear in the New START Treaty negotiations, we would not consider such non-nuclear systems, which do not otherwise meet the definitions of the New START Treaty as ICBMs or SLBMs, to be new kinds of arms for purposes of the treaty.

The fifth point: The treaty does not in any way constrain the ability of the United States to sustain our nuclear weapons stockpile and to rebuild the nuclear security enterprise that supports it. This effort is, as you know, a priority of the Secretary of Defense. Both General Chilton and Administrator D'Agostino will speak to this critical issue, and I strongly endorse our efforts in this area.

Sixth, the treaty does not constrain the ability of the United States to develop and deploy effective ballistic missile defenses, including the ability to improve those defenses both qualitatively and quantitatively, nor does it add any cost or inconvenience to this effort. The treaty's preamble states that current strategic defensive forces do not threaten to undermine the effectiveness of the parties'

strategic offensive arms. Given that the United States currently has only 30 ground-based interceptors and Russia will likely deploy well over 1,000 ICBM and SLBM warheads under the treaty, U.S. missile defenses could increase very significantly and the same will remain true.

It is also important to note that the treaty's preamble is not legally binding and therefore does not require or prohibit either side from doing anything.

Article 5 of the treaty prohibits any future conversion of ICBM silos or SLBM launchers to house or launch BMD interceptors, or vice versa. Such a conversion would neither be cost-effective nor necessary. For example, converting ten ICBM silos to house ground-based interceptors would cost about \$550 million, compared to \$360 million for building ten new tailor-made GBI silos. The placement of missile defense interceptors in converted SLBM launchers would be operationally impractical and very expensive. Therefore, the Article 5 limitation on launcher conversion does not constrain U.S. plans or programs or options.

As you know, Russia made a unilateral statement about missile defenses in connection with the treaty. This statement is not part of the treaty and is not legally binding. As I know the Senators also know, the United States made a unilateral statement in response that we will continue to improve our missile defense capabilities to provide for effective defense of our homeland against limited missile attacks and we will do so also for our deployed forces and our allies and partners against growing regional threats.

As the 2010 ballistic missile defense review, our budgetary plans, the U.S. unilateral statement, and extensive testimony by administration officials all make clear, the United States will continue to expand and improve our missile defenses.

In summary, the New START Treaty promotes stability and transparency in our strategic relationship with Russia. It is effectively verifiable. It allows us to maintain and to modernize a robust triad of strategic nuclear delivery systems and, if desired, to deploy non-nuclear prompt global strike capabilities. It does not affect our ability or intent to revitalize our nuclear security enterprise, nor does it affect our ability to or intent to improve our ballistic missile defense capabilities both qualitatively and quantitatively. In short, the New START Treaty will make the United States and our allies and partners more secure.

Thank you and I look forward to answering your questions.

[The prepared statement of Dr. Miller follows:]

Chairman LEVIN. Thank you, Dr. Miller.

Mr. D'Agostino.

STATEMENT OF HON. THOMAS P. D'AGOSTINO, ADMINISTRATOR, NATIONAL NUCLEAR SECURITY ADMINISTRATION, DEPARTMENT OF ENERGY

Mr. D'AGOSTINO. Chairman Levin, Ranking Member McCain, and members of the committee: Thank you for the opportunity to testify on the New START Treaty between the United States of America and the Russian Federation. First of all, I'd like to make clear that the New START Treaty will not affect NNSA's ability to maintain the safety, security, and effectiveness of the Nation's nu-

clear weapons stockpile. No NNSA sites will be subject to inspections and none of our operations will be subject to limitation. Our plans for investment in and modernization of the nuclear strategic enterprise are essential irrespective of whether or not the START Treaty is ratified. Treaty implementation will not affect our plans.

Ensuring the safety, security, and effectiveness of the nuclear weapons stockpile is one of NNSA's primary missions. Maintaining the stockpile without nuclear testing has been a national policy for nearly 20 years and we will continue to support that policy in the future.

In addition to our maintenance, surveillance, and warhead certification activities, important life extension milestones include: completing the ongoing life extension for the W76 warhead, about the 2017 time frame; completing the full-scope life extension study for the B61 bomb, with production beginning about the 2017 time frame as the W76 is coming down; and completing a study of life extension options for maintaining the W78 ICBM warhead.

With respect to life extension options, the Nuclear Posture Review is clear that the full range of options will be considered for each warhead life extension, to include replacement of nuclear components. The report on New START Treaty framework and nuclear force structure plans, or what's known as the 1251 report, explains that, while the NPR expresses a preference for refurbishment and re-use, the laboratory directors will be expected to provide findings associated with the full range of life extension approaches and they will make recommendations based solely on their best technical assessment of the ability of each life extension approach to meet critical stockpile management goals. These are goals in weapons system safety, weapons system security, and of course the effectiveness and reliability.

The Nuclear Posture Review also reinforced the need to maintain the most survivable leg of the triad, a sea-based strategic deterrent. Naval Reactors began reactor and propulsion plant design this year for an Ohio replacement submarine. Reactor plant components will be procured in 2017 and will support the Navy's need for a reactor core that will last for more than a 40-year life of submarine. Full funding for this program will be required.

The NPR also concluded that we needed to recapitalize the aging infrastructure and renew our human capital base. The stockpile stewardship and management plan is a comprehensive 20-year plan to achieve this goal and to modernize NNSA's nuclear security enterprise. Implementation of this stockpile stewardship and management program will allow us to strengthen our science, technology, and engineering base, modernize the infrastructure, and recruit, develop, and retain the next generation of nuclear security professionals responsible for the stockpile stewardship program as well as other nuclear security missions that the Nation needs.

U.S. nuclear warhead reliability has always been held to the highest standards. These standards for warhead reliability will remain exacting and extremely high regardless of stockpile size. But as the size of the stockpile decreases, our deterrent will rely even more on the capabilities and the strong capabilities-based infrastructure that can respond rapidly to technical and geopolitical changes. This is not just infrastructure in the form of buildings,

but our people, the infrastructure in the form of people and capability to be able to respond in the future.

We've requested a substantial increase in funding in the 2011 to 2015 time period, and the President's budget request for NNSA for the fiscal year during this period for what we call the future year nuclear security program, is exactly right. It reflects both what is necessary and executable. The request includes an increase of \$624 million next year and scales up by an additional billion dollars by fiscal year 2015. The plan calls for sustained investments at these higher levels such that over the next decade the United States will have invested nearly \$80 billion in the stockpile stewardship program and in modernizing the infrastructure.

Sustained national-level commitment and support over the next decade is essential for the entire nuclear security enterprise. The United States relies on NNSA and the National laboratories for the development of technologies, for treaty verification, and for non-proliferation initiatives. Under New START, U.S. inspectors will use equipment developed by our National laboratories that were used for the Intermediate-Range Nuclear Forces and the START I treaties. Should new radiation detection equipment be required, specialists from the nuclear security enterprise will also play an essential role in developing and evaluating this equipment.

The New START Treaty, if ratified and entered into force, commits the United States and the Russian Federation to further reduce our deployed strategic nuclear weapons in a predictable, transparent, and verifiable manner, increasing stability with other countries and demonstrating in a concrete way the U.S. and Russian commitment to our nonproliferation treaty obligations. This I believe will provide positive momentum for future U.S.-Russian collaboration and will provide further credibility for maintaining a strong leadership role for the United States in international non-proliferation initiatives.

Most importantly, the New START Treaty accomplishes these objectives without jeopardizing U.S. national security and specifically will not jeopardize the ability of the United States to maintain the safety, security, and effectiveness of our nuclear weapons stockpile.

For these reasons, I urge this body to favorably consider the New START Treaty.

Thank you very much and I look forward to your questions, sir.

[The prepared statement of Mr. D'Agostino follows.]

Chairman LEVIN. Thank you, Mr. D'Agostino.

General Chilton.

**STATEMENT OF GEN. KEVIN P. CHILTON, USAF, COMMANDER,
U.S. STRATEGIC COMMAND**

General CHILTON. Thank you, Chairman Levin, Senator McCain, members of the committee. It's a pleasure to join you again today, and I'm also pleased to be here with Dr. Miller and Mr. D'Agostino again, two great colleagues.

Mr. Chairman, I was fully consulted during the treaty negotiation process and I support ratification of New START. Today I would like to briefly discuss three reasons why our Nation will be safer and more secure with this treaty than without it, and to highlight current challenges that must be addressed to ensure the long-

term safety, security, and effectiveness of the U.S. strategic deterrent.

I ask that my entire statement be entered into the record.

Chairman LEVIN. It will be.

[The prepared statement of General Chilton follows:]

General CHILTON. Thank you, Chairman.

Mr. Chairman, throughout the Nuclear Posture Review process and New START negotiations, U.S. Strategic Command's team played important analytical and advisory roles. As the combatant command responsible for strategic deterrence planning, advocating for related capabilities, and executing operations at the President's direction, no military organization has a greater interest in the treaty's specifics than we do.

At the outset, our team analyzed the required nuclear weapons and delivery vehicle force structure and posture necessary to meet the current guidance. U.S. STRATCOM involvement and support to both the NPR and New START was continuous, providing options and engagement with the negotiating team throughout the New START process. The breadth and depth of our involvement gives me great confidence that the result does not constrain America's ability to continue to deter potential adversaries, assure our allies, and sustain strategic stability.

I believe that there are three reasons why the New START agreement represents a positive step forward. First, New START limits the number of Russian ballistic missile warheads that can target the United States, missiles that pose the most prompt threat to our forces and our Nation.

Second, New START's flexible limits on deployed and non-deployed delivery platforms retains sufficient flexibility in managing our triad of deterrent forces to hedge against both technical or geopolitical surprise.

Third, New START will reestablish a strategic nuclear arms control verification regime that provides access to Russian nuclear forces and a measure of predictability in Russian force deployments over the life of the treaty.

I think it's equally important to remember what New START will not do. Secretary Gates noted here last month: "The treaty will not constrain the United States from deploying the most effective missile defense possible, nor impose additional costs or barriers on those defenses." I wholeheartedly agree. As the combatant command also responsible for synchronizing global missile defense plans, operations, and advocacy, I can say with confidence that this treaty does not constrain any current or future missile defense plans.

In closing, let me say a word about the need to sustain a safe, secure, and effective nuclear deterrent. As Secretary Gates has also noted in his prepared statement last month, "America's nuclear arsenal remains a vital pillar of our National security, deterring potential adversaries and reassuring allies."

Today the deterrent is indeed safe, secure, and effective. But it is also in need. The Nuclear Posture Review and administration plans recognize needs in infrastructure, human capital, life extensions, and delivery platform developments, and they include support for improving our nuclear enterprise, sustaining today's nu-

clear triad of delivery platforms, and exploring future triad platforms.

In order to sustain the deterrent and implement the NPR, we must commit to long-term investments that begin with several increases outlined in the President's fiscal year 2011 budget. They include: increased funding for NNSA for full-rate production of the W76-1 warhead for our submarine leg of the triad; full-scope nuclear and non-nuclear life extension of the B61 bomb to sustain its strategic deterrence and extended deterrence roles; and initiating studies to develop life extension options for the W78 ICBM warhead. These investments are not only important, they are essential independent from the ratification of this arms control treaty.

I appreciate this committee's support for NNSA's investment in the fiscal year 2011 Defense Authorization Act. This funding is very important and I'm grateful for this year's support.

Thank you again for the opportunity to be here with you today and I look forward to your questions.

Chairman LEVIN. Thank you so much, General Chilton.

Let's try a 7-minute first round.

I think you've all made reference to the flexibility of the lab directors to look at all options in terms of whether it's either refurbishment or whether it's re-use or whether it is replacement of a warhead. My understanding is that if there's a recommendation for replacement which the Nuclear Weapons Council makes, that that would require authorization by Congress by law. Is that correct, do you know, Dr. Miller?

Dr. MILLER. Senator, Mr. Chairman, that is correct. Approval by Congress would be required, including for the funding of that effort.

Chairman LEVIN. So that the policy of the administration is that there not be a replacement without specific approval of the President, but that's also a requirement—there's also a requirement in law that Congress authorize a replacement; is that correct?

Dr. MILLER. Yes, sir.

Chairman LEVIN. I think you've all testified that those requirements in no way limit the lab directors in terms of the options that they can look at and any recommendations that they make. As a matter of fact, they're specifically told they're to look at all options for the life extension; is that correct?

Dr. MILLER. That is correct.

Chairman LEVIN. Mr. D'Agostino, is that your understanding?

Mr. D'AGOSTINO. Absolutely, sir. That's correct.

Chairman LEVIN. Now, on the silo conversion issue, I believe that, Dr. Miller, you've indicated that neither side can convert an ICBM or SLBM launcher for use as a missile defense interceptor. I think, Dr. Miller, you indicated that it would not be cost effective or operationally effective to do so, that it would cost less to actually build new interceptors, I guess, rather than to convert those interceptors. Did I understand your testimony correctly?

Dr. MILLER. Mr. Chairman, we have deployed five ground-based interceptors in former ICBM silos at Vandenberg Air Force Base. So we have good experience with what the costs are, including the additional costs of modifying the structure and security associated

with those silos. We now have extensive experience also in building new silos for ground-based interceptors at Fort Greeley. So we have a good understanding of what the costs would be for additional silos for ground-based interceptors and, as I said, confidence that it would be about \$550 million for ten.

Chairman LEVIN. For the silos?

Dr. MILLER. To convert additional silos.

Chairman LEVIN. Okay.

Dr. MILLER. And about \$360 million for ten new silos. In addition, the operating costs for converted old ICBM silos would be higher.

Chairman LEVIN. In addition to the cost issue, that it would make no sense from a cost perspective, is it also true that if you have that kind of conversion that there's greater chance for potential misunderstanding, miscalculation? In other words, if you use silos of one type for another purpose, does that not create a potential for miscalculation?

Dr. MILLER. Mr. Chairman, with the five former ICBM silos with ground-based interceptors at Vandenberg Air Force Base, we don't see that as a problem. By the way, those were, as you know, grandfathered into the treaty, so those will continue to be allowed. Because those interceptors are at a different location from the three main ICBM fields that we have in the United States, there would be, obviously, a concern about locating ballistic missile defense interceptors at locations very nearby our ICBM fields, and the concern would be that there might be confusion between the launch of an interceptors and the launch of an ICBM. Not confusion on our part, but possible confusion by the Russians.

Chairman LEVIN. Now, for all those reasons, it is our policy not to make those conversions; is that correct?

Dr. MILLER. That is correct.

Chairman LEVIN. So the prohibition in the treaty against conversion is a reflection of our policy. That's not just a concession; that's our policy?

Dr. MILLER. Mr. Chairman, it's a reflection of our policy and of the cost assessments completed that we previously discussed.

Chairman LEVIN. General Chilton, you've indicated in your statement that the New START will reestablish a strategic nuclear arms control verification regime that provides intrusive access to Russian nuclear forces. We don't have any verification at the moment, is that correct?

General CHILTON. That's correct, Senator.

Chairman LEVIN. Do the verification provisions in the new treaty give you confidence to allow the Strategic Command have confidence in planning for U.S. forces and modernization?

General CHILTON. Chairman, it does. Without that, then we would have to just go on intel estimates and not have the insight that will be provided through the verification and inspection process to allow us to assess what we need to be doing more accurately with our forces.

Chairman LEVIN. In other words, the verification provisions give you confidence that Russia cannot achieve a militarily significant advantage undetected?

General CHILTON. Yes, that's correct, Chairman.

Chairman LEVIN. Now, you also said in your statement that we would, without the verification provisions in the new treaty, we would “unfortunately, be left to use the worst case analysis regarding our own force requirements.” Let me see if I understand that. Are you saying that if under the previous verification provision with the number of warheads attributed to missiles and bombers, instead of actual numbers of warheads as in the new treaty, that we would have to retain a larger number of deployed systems and warheads than we would otherwise need?

General CHILTON. The uncertainty would be in the counting of the warheads, as you suggest, Chairman. With uncertainty, without any verification or insight into what the Russians were doing with their force structure with regard to—force structure and warheads deployment that is allowed for with the verification protocols of the treaty, then as the commander, without any knowledge, I would assume worst case.

Chairman LEVIN. Which would be a larger number than you might otherwise be needing?

General CHILTON. Correct.

Chairman LEVIN. And there’s a cost to that maintenance of the larger number?

General CHILTON. Well, that decision would have to be taken, exactly what investments we might make for that uncertainty. But having the verification would remove even that concern.

Chairman LEVIN. Does a larger number than needed result in a larger cost?

General CHILTON. Certainly. If we were to determine we needed more warheads deployed and more warheads in the inventory, that would be more expensive.

Chairman LEVIN. Thank you.

Senator McCain.

Senator MCCAIN. Thank you, Mr. Chairman.

Dr. Miller, last month General Chilton stated that it was not only important, but essential, that the President committed to ensuring the NNSA receive the full \$624 million increase as proposed in his fiscal year 2011 budget. Last week the House Appropriations Energy Subcommittee marked up its spending bill and didn’t full fund the President’s request for the weapons complex. Is that of concern to you?

Dr. MILLER. Senator McCain, the administration continues to support its request and will continue to do so as the process moves forward. We believe that the \$624 million increase that you referenced is critical to moving forward with our nuclear weapons modernization effort and our work on infrastructure.

Senator MCCAIN. Well then, if it’s that essential, if the cut remains in the final appropriations bill would you recommend a veto by the President?

Dr. MILLER. Senator McCain, at this point I think you’ve asked me a question that, frankly, is perhaps above my pay grade. What I would do is provide our best assessment of the implications and specific consequences and do everything possible to support continuing to get to the administration’s request on this funding level.

Senator MCCAIN. General Chilton, do you agree with the unclassified statement in the State Department verification assessment

that “any cheating by the Russians would have little, if any effect.”

General CHILTON. Senator McCain, I do agree with that—

Senator MCCAIN. You do agree with it?

General CHILTON.—in my lane, from the perspective of we have to preserve—what I’m asked to do is preserve an effective deterrent, and I believe we can. With our assured response capabilities with our submarine force and with our ICBM force, I believe that we’re in a good position vis a vis the Russians in this regard.

Senator MCCAIN. What this brings to the casual observer’s mind, General, is if it doesn’t have any consequences if they do any cheating what’s the point in having a treaty?

General CHILTON. There are consequences—

Senator MCCAIN. If we don’t care whether they cheat or not, it has very little effect, why have a treaty?

General CHILTON. Senator, I’m sorry. Let me restate that. I do care if they cheat or not.

Senator MCCAIN. If it has little effect? You just agreed it has little if any effect.

General CHILTON. Senator, let me correct myself then. On our ability to deter the Russians with an assured response.

Senator MCCAIN. So it would have little, if any, effect, and we have a crisis and they triple their—two or three times as many nuclear weapons as we have. That doesn’t have any effect?

General CHILTON. Senator, I believe if they were to proceed in a fashion as you described it, tripled or even doubled their amount of weapons, I believe that would be detectable under the verification regime, and I believe that we would—in that case, they would have walked away from the treaty. Hopefully, we would have had dialogue with them before that to understand what they were doing and why.

Senator MCCAIN. But minor cheating, they wouldn’t have walked away from the treaty because that would have little effect? There’s no logic to your statements and to—if cheating has very little, if any, effect, why we are—I always believed in all the treaties that I’ve been involved in in the past 28 years, General, that cheating does matter, that it does have an effect, and to say that it has little if any effect, then we’ve been wasting a lot of time and money on negotiations.

General CHILTON. Senator, I agree with you. It does have an effect.

Senator MCCAIN. So then you don’t agree with the State Department’s statement?

General CHILTON. In the narrow area of what my responsibilities are, to assure the deterrent, an overwhelming ability to respond, which is the baseline of the deterrent, in that narrow area I think we’re in good position with the treaty. I also believe that we would be able to detect through the verification protocols any cheating, significant cheating, by the Russians.

Senator MCCAIN. I take it that—

General CHILTON. And it is—

Senator MCCAIN. I take it that you’ve read the NIE?

General CHILTON. I have, Senator.

Senator MCCAIN. Dr. Miller, what continues to trouble a lot of us is not so many of the details, and they are very complex and understandably so, but what bothers a great deal of us is, I have two documents in front of me I think both of you have seen. One of them is the statement of the Russian Federation concerning missile defense. The other one is the statement by the United States of America concerning missile defense. They're obviously at odds with each other, because the Russians say that the treaty may be effective and viable only in conditions where there is no qualitative or quantitative buildup in the United States' missile defense system capabilities of the United States of America.

Yet our statement was: The United States missile defense system would be employed to defend the United States against limited missile launches and defend its deployed forces. The United States intends to continue improving and deploying its missile defense system in order to defend itself against limited attack.

Now, the Russian statement doesn't say that the treaty would be effective and viable only in conditions there's no qualitative or quantitative buildup in the United States' limited capability. It just fundamentally—there's a fundamental disagreement in both signing statements to any objective observer.

So I still don't know how you reconcile those two statements at some point that there isn't—if we continue to, as is stated by the United States, continue to improve and deploy our missile defense systems in order to defend ourselves.

Maybe you can help us out here, doctor?

Dr. MILLER. Senator McCain, let me first very briefly just add on to General Chilton's response. His response focused appropriately on the military aspects of any cheating. Because we will have a diverse force structure under New START, with highly survivable systems, and because we will retain the ability to upload, from a military perspective we will be postured well to first deter cheating, but then to minimize its significance should it occur.

That said, any cheating by Russia on this treaty we would consider to be significant politically because—

Senator MCCAIN. Well, I'm glad you would, because the State Department doesn't seem to. But go ahead. Let's get back to the—

Dr. MILLER. So on the—I'll stop there. I'll say perhaps more at another point on that issue.

Senator MCCAIN. And by the way, if you'd like to elaborate on that response, I don't mean to cut you off. I'd be glad to have additional comments for the record.

Dr. MILLER. Thank you, sir.

Senator MCCAIN. I hope I didn't short-circuit you there.

Dr. MILLER. Thank you.

With respect to the Russian perspective on missile defense, I believe it's been clear since about March 23, 1983, when Ronald Reagan provided his so-called "Star Wars" speech, that the Russians would like to constrain the United States' activities in missile defense.

Senator MCCAIN. I'm sure you remember that that was the Russian demand, which the President of the United States turned down at Reykjavik. That's a matter of record, of historical record, and a turning point in the Cold War.

Dr. MILLER. It is——

Senator MCCAIN. He would not have agreed, in my view, to two conflicting statements being the result of an agreement.

Dr. MILLER. Senator McCain, our missile defenses are not constrained by this treaty, with the exception of Article 5 that I talked about before and its prohibition on the conversion from ICBM silos or SLBM launchers, or vice versa. The ability of the United States to provide effective missile defense for the Nation, for our forces overseas, and in partnership with our allies is unaffected by this treaty. There are no additional costs. There are no additional inhibitions on our ability to do that.

I think it's worth just reading very briefly the second part of the Russian statement on missile defense, understanding that it is non-binding and it's not a party of the treaty, but a unilateral statement. They note that—the statement notes that the extraordinary events referred to in the treaty that could prompt Russian withdrawal would involve a buildup such that it would give rise to a threat to the strategic nuclear force potential of the Russian Federation.

That is their perspective. But as I noted before, when we have 30 ground-based interceptors we have a long way to go before we have any capability that's close to affecting the strategic stability of the balance when they will have over a thousand warheads under New START.

I would also just very briefly—President Medvedev was interviewed on April 9th on AFC, and it's a long quote which I'd like to provide for the record, but just the last sentence of it says: "I would note want to create the impression that any changes would be construed as grounds for suspending the treaty that we have only just signed."

So they have—I have the sense that there could be continued statements in this regard. We are unsurprised that the Russians have desired to constrain our missile defenses. We continue to encourage them to cooperate on missile defenses to deal with the common threats that we face, and we will continue both to qualitatively and quantitatively improve our missile defenses and to seek their cooperation to move forward together to deal effectively with this threat.

Senator MCCAIN. Well, my time has expired. I thank you, Mr. Chairman, but I'm reminded of I guess it was a Groucho Marx line: You can believe him or your own eyes. I thank you, Mr. Chairman. I thank the witnesses.

Chairman LEVIN. Thank you, Senator McCain.

Senator Lieberman.

Senator LIEBERMAN. Thanks, Mr. Chairman. I was looking to the ceiling to see whether Groucho's duck was going to come down.

I thank Dr. Miller, Mr. D'Agostino, and General Chilton for returning. You have become recidivists before this committee, to our benefit, and we appreciate your service and your testimony.

I would guess that I'm in the same position as most, if not all, members of the Senate, which is that I hope to be able to vote to ratify the New START Treaty, but for me, and I think for a lot of members of the Senate, there are two lines of questions that we need to have answered to give us that level of comfort.

The first has to do with the health, if I can put it that way, of our nuclear stockpile. That is, that as we reduce the number of deployed nuclear warheads, obviously we want to have a satisfactory level of confidence, to put it as simplistically as I can, that they work. The second is verification. Senator McCain has touched on both of these.

This series of hearings that Chairman Levin has been, and Senator McCain, have been conducting have been in a sense a refresher course, at least for me, on this whole subject area. One of the things that I've come to understand again—and I focus this to you, Mr. D'Agostino—is that nuclear weapons age, and as they age they become less effective; is that correct?

Mr. D'AGOSTINO. As they age, aging effects can make them less effective. Really it depends on the specifics of the material itself, and that's why we go through a very in-depth annual process of taking apart nuclear weapons, looking inside, noting any anomalies, and taking it from there. It's part of our stockpile stewardship program.

Senator LIEBERMAN. Right. And am I right, as someone said before the committee, that today the average age of our American nuclear weapons stockpile is greater than it's been, ever been before? Does that sound right?

Mr. D'AGOSTINO. That's correct, Senator.

Senator LIEBERMAN. So this is why we're focused on making sure that—and the fact is, and this is not a partisan fact—both parties were part of this—that we have put the nuclear weapons program of the U.S., NNSA which you direct, under budgetary pressure over the last years. And it's why so many of us as part of our consideration of the New START Treaty are focused on making sure that we increase our investment in our nuclear stockpile to make sure that it works.

Senator McCain talked about the cut that the House Energy and Water Subcommittee made. This is significant to me and a lot of others, and I hope in the process that Congress will at least fund to the level that the administration has requested for fiscal year 2011. Obviously, it's very hard to bind a future Congress, but we certainly can bind the administration and ourselves for this coming year.

I do have a question to ask, just to try to stretch our capacity to bind here a bit, which is the fiscal year 2012 number in the future years nuclear security program is \$7 billion, which is essentially a no-growth figure. It's about what the administration—it's exactly what the administration has requested for fiscal year 2011. Considering inflation, that means that there will be in fact a drop in fiscal year 2012 in funding for the nuclear program.

Why is that, Mr. D'Agostino? And why should we accept that as an adequate figure?

Mr. D'AGOSTINO. In the totality—I'll talk to the specifics of the question, but I'd like to add a little bit with respect to the overall budget picture. In essence, we have a very significant increase from fiscal year 2010 to fiscal year 2011. That reflects the ability to execute the program and shows a commitment on the part of ourselves and the United States that this is important to maintain.

The fiscal year 2012 numbers, '13, '14, '15, and '16, and particularly in fiscal years 2013, 2014, 2015, and 2016, increase dramatically.

Senator LIEBERMAN. Right.

Mr. D'AGOSTINO. What we say in our 1251 report and in our 3113 report, which is the 20-year look ahead, is that there is an expectation for some numbers to change as we get the project baselines well understood for the large budget drivers in that particular program, specifically the B61 life extension, as General Chilton referenced earlier, specifically the uranium processing facility and the chemistry and metallurgy replacement facility.

The report clearly states that as baselines are established—and what we're going to spend is a lot of time in the first two years getting those baselines down and then locking in those numbers into the out years—we do believe—the important thing for us and for me particularly as the program manager and someone who's been involved with this program for over a decade and a half, is the demonstrated ability to execute those funds well and in the areas they need to go. It was my assessment that this approach, the layout that we have in our 5-year plan, is the right approach that we have put together. It's not just mine. The Secretary was involved.

Senator LIEBERMAN. I hear you, and I'd say that there are a group of us in both parties who probably would like to continue this discussion with you in the hope that—fiscal year 2012 is the next year, obviously. We can't quite control it legislatively, but we can reach toward it, and to see if we can bring some of that money that you've got in your future plan forward to fiscal year 2012. But we'll talk more about that.

I want to get to one question on verification. The New START Treaty does cut back in some significant ways, I think, from the verification mechanisms in the START I Treaty. The one that concerns me most is with regard to telemetry. Parties are obligated under the START I Treaty to exchange telemetry tapes, interpretive data, and acceleration profiles for every missile test flight, with the emphasis on "every." under the New START Treaty, the international exchange required—is required on at most five tests per year, and each country can determine which five they'll agree to exchange telemetry.

Russia is expected to test between 10 and 12 ICBMs per year and will likely therefore, we assume, because of its general concern about transparency in its strategic program, share with us data only on its older systems. So I think we make the—I understand the difference. We make our—we make it harder for our intelligence community to gauge exactly what the Russians are developing. I understand that may be different from exact verification here, but my bottom line here is that we're losing a capacity in the proposed New START Treaty, verification capacity, that we had in START I, and I wanted to ask Dr. Miller or General Chilton both why we agreed to this and whether you're concerned about.

Dr. MILLER. Senator Lieberman, the START Treaty had a couple of provisions for which telemetry was important for verifying. The first was that it limited throw weight, and so when a missile was tested and its warhead was tested the telemetry, the information

coming out from that test, was important to understand the throw weight of that missile, how much it could carry.

Senator LIEBERMAN. So they actually gave us tapes, if you will, from inside the missile?

Dr. MILLER. There were provisions for exchange of tapes and for open broadcast as well, and typically both of those would occur, and for non-encryption of those tapes and broadcasts.

The second provision in the previous START Treaty for which telemetry was relevant was that it had an attribution rule for warheads for each missile. So the SS-18 was counted as ten warheads under the START Treaty. If we then saw the Russians testing with 11 warheads, that would be a violation of the treaty, and the telemetry broadcasts and tapes associated with those tests were therefore directly relevant to the verification of START.

The New START Treaty doesn't have limitations on throw weight and uses a different rule for accounting for warheads. It actually counts the warheads on each missile and delivery system—I'm sorry, on each missile, ICBM and SLBM—so that we don't have that attribution rule. Therefore telemetry does not play a role in verifying the provisions of the New START Treaty as it did in the START Treaty.

Now, we were able to negotiate an exchange of telemetry, as you noted, for up to five exchanges per year, irrespective of the fact that it was not needed for verification of the treaty.

Senator LIEBERMAN. My time is up. General Chilton, I'd like to hear from you as this goes on. I'm concerned about this. I understand what you're saying about verification requirements, but it seems like an odd compromise to make. If the telemetry is not required for verification of the Russians' compliance with the treaty, then why even have five?

But to me it was quite valuable to us—and this gets into your area, General Chilton—in terms of assessing the capacity of the Russian missiles, which is important for our National security. So I'm puzzled why we didn't either fight for the same unlimited access to telemetry that was in START I or, if it didn't matter, then why even have five, because they'll give us data on their oldest missiles and it won't help us very much.

Dr. MILLER. Could I answer very briefly?

Senator LIEBERMAN. Yes.

Dr. MILLER. That is that, Senator, that we think that telemetry is a useful provision for improving transparency and for helping us understand each other's systems, and that we would intend to work to build on the provisions in the New START Treaty to try to get the most useful exchanges possible.

Senator LIEBERMAN. My time's up. Thank you.

Chairman LEVIN. Senator LeMieux. Thank you, Senator Lieberman.

Senator LEMIEUX. Thank you, Mr. Chairman.

Thank you, Dr. Miller, Mr. D'Agostino, and General Chilton, for your service and for being here today. I want to speak with you first about tactical nuclear weapons and why they're not addressed in the treaty, as I understand it. In May Henry Kissinger testified in front of the Foreign Relations Committee of the Senate that the large Russian stockpile of tactical nuclear weapons, unmatched by

a comparable American deployment, could threaten the ability to undertake extended deterrence. According to the Congressional Strategic Posture Commission, Russia has 3800 tactical nuclear weapons, with a ten to one advantage over us, and some are concerned that if you factor in those tactical weapons this New START Treaty will put us in a position where they have more total nuclear weapons.

So the question I have to start off with is why were tacticals not contemplated and addressed in the treaty?

Dr. MILLER. Senator, when this administration came in there was a recognition that the START Treaty was going to expire on December 5 of last year and that therefore we would be without any verification provisions or limitations at that time. Consistent with the recommendations of the Strategic Posture Commission, the Perry-Schlesinger Commission, the administration therefore made a decision to work with Russia to try to achieve a New START Treaty as soon as reasonably possible. Didn't make it, obviously, by December 5th, but came in several months later, so that we would have those verification provisions and data exchanges and other elements of the treaty in place, again consistent with the recommendations of the Strategic Posture Commission.

We also noted in the Nuclear Posture Review that this was intended to be the next step, not the last step, and that we have suggested follow-on negotiations after relationship and entry into force if that is provided by the Senate and the Duma, that would look at both tactical and strategic and both deployed and nondeployed nuclear weapons.

We continue to intend to pursue that path today.

Senator LEMIEUX. General Chilton, do you want to address this?

General CHILTON. Sir, there's not much I can add with regard to why we went, negotiated, and sat down and talked about this. It was a Strategic Arms Reduction Treaty, so it was focused on strategic weapons. I think maybe the only thing I would add is that the imbalance in the tactical area kind of puts an exclamation point on why we have to continue to pay attention to the assurance aspect of our force structure, because our allies look at the tactical nuclear weapons through a different set of lenses than we would with regard to how they may threaten their nations.

Senator LEMIEUX. Well, it occurs to me that the tactical in a lot of ways is more disconcerting than the strategic, just because it's harder to monitor where they are, they're portable, and they can be employed in ways that would be very disconcerting to our allies, as well as to us. Strategic, we think about the intercontinental ballistic missile, and that's obviously something we have to keep track of. But in a world where we're concerned about nuclear proliferation, about rogue terrorist countries getting nuclear weapons, the fact that they're moveable seems to be something—I know the President has articulated that he's concerned about that.

I mean, do you anticipate that we're going to be entering into another round of treaty negotiations soon? Is there anything planned to discuss tactical?

Dr. MILLER. Senator, first, we have encouraged and continue to encourage Russia to move its tactical nuclear weapons back into the interior of the country and to further improve the security of

the storage of those weapons. They've made significant progress since the end of Cold War, but we believe there's important progress yet to be made.

The President has asked us to consider what the next round of negotiations should address and, as I said, has given direction that it should include tactical as well as strategic and deployed and non-deployed.

In terms of aggregate numbers, just to give only the unclassified, obviously, in this setting, we have 5,113 nuclear weapons in the stockpile—that was declassified just a couple of months ago—and in addition to that have several thousand nuclear weapons awaiting dismantlement. I can't, in this open setting, can't speak to the number of Russian weapons.

But when people think about the U.S. nuclear arsenal, I think it's important to understand that there's more than the 1550 that are referenced in the limits of the New START Treaty.

Senator LEMIEUX. Do we believe that in entering into this agreement that Russia is already at the levels that the treaty requires, or are they going to have to make reductions?

Dr. MILLER. Our estimate—and I'd defer the details to a classified setting. Our estimate is that, in terms of warheads and delivery systems, they are moving—they are moving or have moved into the range of the treaty.

Senator LEMIEUX. I'm a newcomer to this process, but in trying to evaluate whether I would support this it's a big concern to me that we're not dealing with tacticals. It's a big concern to me that they probably are already at the levels that we were asking for, so we're not gaining a concession. It really comes down to verification, and that's obviously important, and being able to have an open process with them to know what they're doing with their weapons.

But then we get to I think the point that was very articulately made by Senator Lieberman, is that the verification component seems to be weaker than in the previous START Treaty. So you wonder what we're gaining in this agreement. Then there's the issues that Senator McCain raised about the missile defense system.

Let me pose this question to you. Are you aware that the Russians are developing new delivery systems, new weapon delivery systems, to overcome any missile defense system that we would employ?

Dr. MILLER. Senator, I would prefer to answer that question in a classified setting.

Senator LEMIEUX. In terms of our triad, the comment was made earlier by Mr. D'Agostino that we are working on a follow-on to the submarine system and a new class of submarines. What about the rest of the triad, the ICBMs, the B-52s, the nuclear-launched cruise missiles? Are there plans in place to update our triad? I understand that there are expiration dates on the longevity of those aspects of the triad. They're not right on our doorstep, but they're coming quick. Are we going to—do we have plans in place for the next phase of those weapons systems?

General CHILTON. Senator, I'll take that one on. Of course, the work is under way on the studies required for the Ohio-class Trident submarine replacement. With regard to the Minuteman III,

Congress has directed that we sustain that until 2030, and I believe adequate investments are in place for the issues that we're aware of today, and as they continue their studies they'll be able to—the Air Force will be able to do that and in fact will extend the Minuteman III.

Along those lines, though, in a couple of years we'll be lead time away from thinking about what would be the follow-on to the land-based deterrent. So they'll begin AOAs, or analyses of alternatives, here and begin the initial studies for follow-on to the land-based deterrent appropriately here in the near term.

Then of course, as you are aware, the long-range strike question as to what would be the follow-on to the bomber is being discussed in the Department right now and is an issue that the Air Force is taking on in this cycle.

Lastly, with regard to the air-launched cruise missile, we believe with modest investments in both the platform and the weapon that can be easily extended until 2030, which I think is appropriate to do, and then allow us to begin studies in about the 2015 time period to see what would be the follow-on replacement to that.

So all of these are in play now and they're absolutely important. Senator LEMIEUX. Thank you, General.

My time is up. Thank you, Mr. Chairman.

Chairman LEVIN. Thank you, Senator LeMieux.

Senator Reed.

Senator REED. Thank you very much, Mr. Chairman.

Thank you, gentlemen. Mr. D'Agostino, the inspection schedule and the verification is essential to the treaty, as it was with START I. But I think it's important to note that, as I understand it, in the START I Treaty there were 70 sites in four different countries that had to be monitored, versus 35 sites and just Russia. So from the degree of sort of the simplicity of streamlining, the challenge is not as—I'll let you characterize it. How does that change, the inspection schedule? Or Mr. Miller, either one?

Dr. MILLER. Senator Reed, you're exactly correct. Under START there were 70 sites in four different countries, including Ukraine, Belarus, and Kazakhstan, in addition to Russia. And the Russians have declared 35 sites under the New START Treaty. We have 18 inspections, 18 on-site inspections, allowed under New START per year. There were 28 allowed under the START Treaty, so proportionately in fact we're doing somewhat better.

In addition, some of the so-called type 1 inspections that we have under the New START Treaty, of which there are 10 of the 18 type 1, those have an additional element that you can debate how to score it, but it provides something more than just sort of a 1.0 in terms of when you conduct that inspection being able to do an additional look for nondeployed items as well.

Senator REED. So in effect, at first blush when you see 28 and then you see 10 plus 18, there might be the impression that, well, we're missing something. But you do have to factor in the fact that we're looking at half the sites we did in START I.

Dr. MILLER. That's correct, sir.

Senator REED. One of the issues, General Chilton, here is that if we fail to ratify the New START Treaty, what will it do to the whole issue of predictability, stability, transparency, things that at

least we have with START I, which is not legally in effect, but out there as a format? Can you comment on that?

General CHILTON. Senator, today we have no verification or inspection rights with Russia because START I has expired. So what we're balancing is zero inspections in the future or the promises of the treaty before you for consideration.

But I would also add, it's just not the insights you would no longer have, but the constraints of the treaty actually do constrain Russia with regard to deployed launchers and deployed strategic weapons, and that's an important element as well. Without that, they are unconstrained.

Senator REED. So your judgment from your perspective is that relationship of the treaty would enhance stability and transparency into their operations?

General CHILTON. The term "stability" I always hesitate on because I think of strategic stability with regard to the force structure. But I think it would certainly do both of what you describe, Senator, and that is why I support relationship.

Senator REED. Thank you, General.

My colleague Senator LeMieux brought up the issue of tactical weapons. I thought it was interesting, the comments that Senator Lugar made in an op-ed he wrote that—and I'll quote them and see if you would associate yourself with them: "In fact, most of Russia's tactical nuclear weapons either have very short ranges, are used for homeland defense, are devoted to the Chinese border, or are in storage. An agreement with Russia that reduced, accounted for, and improved security around tactical nuclear arsenals is in the interest of both nations, but these weapons do not compromise our strategic deterrent."

Is that accurate, General Chilton?

General CHILTON. Senator, clearly the most proximate threat to us are the ICBM and SLBM weapons because they can and are able to target U.S. homeland and deliver a devastating effect on this country. So we appropriately focused in those areas in this particular treaty for strategic reasons.

Tactical nuclear weapons, the comments that you just read are valid with regard to their ranges, etcetera. But in reality, weapons can be put on platforms and moved at intercontinental ranges, but they don't provide the proximate threat that the ICBM and SLs do. From a broader perspective, as we look toward reduction of total weapons you do have to take in follow-on negotiations I strongly support that we look at the entire inventory of Russia in future discussions with them, because they are nuclear weapons and they do affect our allies in the region and that's important to us.

Senator REED. My sense is—and I'll ask you for your sense, General—is that if this treaty is not ratified, the prospects of follow-on serious discussions about nuclear reductions are probably close to zero. Is that your sense?

General CHILTON. Senator, I couldn't speculate on that. I don't have an assessment on that.

Senator REED. Dr. Miller can speculate on that. Dr. Miller?

Dr. MILLER. Thank you for that opportunity, Senator Reed. I agree with your assessment.

Senator REED. Finally, Mr. D'Agostino. We here are looking very carefully at our nuclear enterprise, the laboratories and everything else. We all understand that there are budget issues, modernization issues, attracting the scientific talent that we need in a much different environment than 30 or 40 years ago. But I think we sometimes have a tendency to sort of think that the other folks, the Russians, have this superb, highly polished and running at max efficiency institutional endeavor.

Can you comment on, particularly since we both, mercifully, abstained from testing for decades now, can you comment on what their establishment looks like?

Mr. D'AGOSTINO. Yes, I'll do so, and of course keep it unclassified.

Senator REED. Yes, sir.

Mr. D'AGOSTINO. The Russian approach is a bit different than ours. The Russian approach is focused more on the production side, just keep building and keep taking things apart. So there's a fair amount of exercising of the infrastructure. Our approach has been to focus on deep understanding of what's happening inside the warheads themselves, using experiments, simulation, and tying all these things together.

They're just two different approaches. That's not to say the Russians are not doing the science base. They are. That's not to say we aren't doing some production work. We are. They're just two different approaches to address the item.

With respect to the United States, though, I think what I've observed in this program over many years is that the thing that is so important to running a program like this, of this size and complexity, is some uncertainty about how the future—what the future is, what the country really wants. What's been great about what we've seen particularly over the last 2 years or so is a gathering of ideas and a certain amount of consensus that's developing, a bipartisan consensus, if you will, that says it's important to have certainty in this program and it's important that the work force understand that the Nation really cares about this program, because these are smart people that can get jobs elsewhere.

So from my standpoint, and it'll maybe go to answer one of the questions you asked General Chilton, the relationship of the START Treaty is another piece of that certainty and predictability. It's the view that the work force sees that there's a general consensus on the need to maintain the stockpile, the need to support science, and the need to modernize the infrastructure. And the relationship of this treaty is another nail into that, locking in the National consensus on this approach. It provides the stability for the work force, they know the country cares about it. It allows the program managers to adequately plan so that we'll know what size stockpile we're taking care of. And it allows us to drive some efficiencies in our program, and that's what we've shown in our 1251 report and our 3113 report, sir.

Senator REED. Thank you very much, gentlemen.

Thank you, Mr. Chairman.

Chairman LEVIN. Thank you, Senator Reed.

Senator Brown.

Senator BROWN. Thank you, Mr. Chairman.

Senator LeMieux and others have commented—this is to Dr. Miller—about the tactical nuclear weapons. In START I they were punted to the next treaty. In START II, which wasn't ratified, they were punted once again. Moscow, the same thing. Now we're in this potential treaty signing and it seems to be being punted again.

Now, I'm having difficulty, and I am, like Senator LeMieux, I'm one of the new guys, but I am in the military for 30 years. I do understand tactics and a lot of that good training I received from the people of the United States. I'm trying to get my hands around the trust issue and the strategic versus tactical, ICBMs, just seeing how it affects—yes, I agree the long-range weapons obviously affect us. But we have troops throughout the world that can be dramatically affected by our failure to address the strategic—the tactical nuclear weapons as well.

I'm just wondering whether we're missing an opportunity, if we're just trying to get a victory here, political victory, versus actually getting a solid treaty that we can rely on. Any thoughts on that?

Dr. MILLER. Senator Brown, the tactical nuclear weapons are a concern of this administration. We have, as I think Senator Reed noted, have emphasized the importance of their security, and the President has made it clear that we should look to future arms control negotiations where we aim to reduce those along with all other types of nuclear weapons.

The reason for focusing first on strategic nuclear weapons was not because of the lack of importance of tactical nuclear weapons, but because the START Treaty was expiring and with it the verification provisions and limits under the treaty that we believe are essential to reducing uncertainty associated with Russian strategic forces, also provide a basis for follow-on negotiations. I think it will be extraordinarily difficult to take that next step if we don't first have START ratified and enter into force.

This administration will continue to work on the security issues and continue to encourage Russia to move the weapons back and to improve their security. But at the same time, those follow-on negotiations will be much more likely to proceed if we have a basis in a new START Treaty.

Senator BROWN. As you know, Mr. Chairman, we've had other hearings and we've actually had private opportunities to speak to up the food chain a little bit. So a lot of my questions have been asked and a lot of them are sensitive in nature. But I keep going back to why don't we try to go and renegotiate or incorporate a lot of these issues.

That issue for me I think is one of the more important issues. I understand, well, we need to do this before we do that, but it's been START I, START II, Moscow. At what point do we stop beating around the bush and actually get serious and say, you know, if we don't have this we're going to do that. Because there's just something gnawing at me that I have to kind of get my hands around. I've been trying to do the appropriate research and speak to the appropriate people.

The trust element for me is something that I don't really see here, evidenced by your conversation with Senator McCain. What if they don't do it? What are the ramifications? What is the enforce-

ment? What do we do? Do we say, oh, you're bad? Where are the teeth?

Am I missing something?

Dr. MILLER. Senator Brown, if your question is about what if the Russians agree, that they ratify New START and that we ratify, and then they either cheat or break out, at a small level, where we're having the debate over whether an activity such as the type of reentry vehicle covers that are used in inspections is appropriate or not, we first would take it to the Bilateral Consultative Commission and have that conversation, if necessary then elevate it to more senior political levels.

If you're talking about significant changes in their posture that we judge to be cheating or breakout, we would have a range of options, starting with the political, but including steps to increase the alert levels of our strategic forces if appropriate and to increase the capabilities by uploading additional warheads on our missiles and bombers.

So we would have that response, and we believe that that capacity to respond in that way will contribute to giving them disincentives or, put differently, deterring Russia from cheating should any future leader have that inclination.

Senator BROWN. That's helpful.

Thank you, Mr. Chairman. I'm all set.

Chairman LEVIN. Thank you very much, Senator Brown.

Senator Udall—Senator Hagan's next.

General CHILTON. Thank you, Mr. Chairman.

Thank you, gentlemen, for being here today and discussing this very important issue with us.

Senator Lieberman asked a question concerning the aging of the stockpiles of nuclear weapons. My question is one step further and talking about the recruitment and the retention of the nuclear scientists and engineers that will be overseeing that. Last month during our committee's hearing, Secretary of Energy Steven Chu indicated that he was concerned about the ability to recruit and retain the best and the brightest nuclear scientists and engineers for the stockpile stewardship and life extension program.

He emphasized that a primary obstacle is the perceived lack of financial stability and importance in this program. He underscored that nuclear scientists and engineers need to believe that the U.S. Government cares about the nuclear life extension.

Compounding our recruitment problems is the fact that a significant portion of our nuclear scientists and engineers in our National laboratories will be eligible for retirement in the next 5 years, and without an infusion of younger talent before those retirement dates we are at risk to lose the invaluable institutional knowledge with regards to addressing the challenges in maintaining our nuclear stockpile. This is a concern to me because stewardship is becoming technically more challenging as our weapons continue to age beyond their intended lifetimes.

Two questions, primarily to you, Mr. D'Agostino, is: Do the National laboratories have a recruiting strategy and set of agreed-upon goals and objectives to recruit new talent? What kind of university partnerships do the National laboratories have in order to bring in a stream of new talent? Additionally, how do the National

labs envision sustaining this recruitment of personnel with specialized technical skill sets and, more importantly, institutionalizing the mentoring with the older employees to retain the decades-long institutional memory?

Mr. D'AGOSTINO. Thank you very much, Senator, for the question. Secretary Chu is exactly right. When he came into this position over a year ago, I had an opportunity to describe the program to him as I carried forward from my previous role in the previous administration. He took a look just at the budget and then he ended up talking to the lab directors personally. When you look at the science budget, he saw over a period of time, he saw a dramatic decrease in that, and that clearly was affecting the morale at the laboratories themselves.

Just as important as the morale, though, was this lack of consensus that we as a Nation had an understanding of where we were going with these nuclear programs. What we've got right now is that understanding. Now, that understanding has actually motivated the work force recently. They understand that it's important, that the Nation cares about wanting to maintain the stockpile.

So the laboratories as a result of that—in fact, previously we did have a recruiting strategy. We've updated that strategy because of this infusion and the request for additional resources. This strategy is based on a very systematic assessment of the critical skills that are needed to maintain the stockpile and do all of the other nuclear security work that we have.

Particularly in radio-analytic chemistry, that's a skill that we need to maintain to do nuclear forensics work. It's skills associated with being able to design radiation detection devices, and not only that, but the skills associated with running large experiments, not underground tests but large experiments, and using the computers to pull these things together.

We have joint programs with a set of universities, a wide set of universities around the country. We have a program called the Academic Strategic Alliances program, which has strategically aligned our laboratories and universities. This provides the laboratories a foot in the door to that recruiting, that talent pool that's out there.

Finally, as our senior scientists retire we take those, in many cases sign them for a mentoring role, to come back and to follow through, because they have clearances typically, and obviously they're experienced, and they typically are wanting to engage in work the country cares about. So we have a mentoring role.

The last critical piece to all of this is what I would call real work. It's important for our scientists and engineers and production technicians at the nuclear security enterprise to do real work, work on the stockpile itself. The three main pieces that General Chilton referred to, which is working finishing the W76 life extension, working on the B61 life extension, to include the nuclear and the non-nuclear components, and starting to think about concepts for the W78 warhead, which we know is aging, all that is real work, and they're frankly quite energized about that. That last piece is very important, and that's what we've laid out in our 10-year plan and in our 1251 report.

Senator HAGAN. Thank you.

During this committee's June 17th hearing on the New START Treaty, Secretary Clinton indicated that it appears as though the Russians have postponed the sale of the S-300 long-range surface-to-air missile system to Iran. During the hearing Secretary Clinton and Secretary Gates indicated that Russia did not deliver the system because of improved U.S.-Russian relationship building.

Some experts indicate that not ratifying the New START would send a negative signal to Russia that may cause them to not support U.S. objectives with respect to dealing with the Iranian nuclear program or implementing the new round of UN sanctions against Iran.

Dr. Miller, what strategic impacts will ratifying the treaty have on U.S.-Russian talks with respect to Iran's ambiguous nuclear program, and how would not ratifying the treaty affect our cooperation with Russia in dealing with the Iranian nuclear program or implementing the new round of UN sanctions?

Dr. MILLER. Senator, you're right that Russia postponed the delivery of the S-300 to Iran and we hope that that postponement continues indefinitely. The state of the U.S.-Russian relationship is obviously an important element in thinking about what the future is, not just of that issue of the S-300, but also, as you suggest, of our ability to convince Iran to give up its efforts to move forward with its nuclear programs.

The improvement in U.S.-Russian relations is difficult to quantify, but it is real. Our ability to work together on the issues associated with Iran, the Russian response also with respect to working to denuclearize North Korea and continued efforts there in response to the Cheonan sinking, are some of the signs that we see that this is having—that we're headed in a productive direction. It does not mean we won't have our differences. It does not mean we may not even face setbacks. But it's clear that the New START Treaty has been a very important part of moving the relationship forward.

Senator HAGAN. Thank you. My time has expired.

Chairman LEVIN. Thank you very much, Senator Hagan.

Senator Collins.

Senator COLLINS. Thank you, Mr. Chairman.

Dr. Miller, I want to follow up with you on the discussion that you had with Senator Lieberman about telemetry. You stated that the second reason telemetry was important under the original START Treaty was to ensure that ICBMs were not armed with a number of warheads in excess of the number of warheads attributed to each ICBM under the START counting rules. The original START counting rules as I understand them attributed to each ICBM the maximum number of warheads that it was believed to be able to carry. If telemetry can be used to verify the actual number of warheads, as you seem to be saying in response to Senator Lieberman, why wouldn't that information under the counting rules of the New START Treaty, which counts the number of deployed warheads missile by missile, be even more important?

It's obviously more difficult for us to verify the number of warheads if we're trying to count missile by missile than if we're assuming the maximum and can use telemetry to verify that or to see if there is a way to carry additional warheads. So it seems to me

that your answer to Senator Lieberman doesn't add up, because it seems to me that it's more important that we have telemetry in order to verify the number of warheads under the new counting rules. So explain this to me?

Dr. MILLER. Senator Collins, under the previous START Treaty you are correct that for ICBMs and SLBMs there was an attribution rule. We wanted it to be as close as possible to the maximum, but in fact believe that, for example, the SS-18 could have carried more than ten warheads should Russia have so decided. So if we had seen—if we had seen them testing with 11 or 12 or 13, that would have been an indication of a violation of the treaty under START.

Now, in New START Treaty each side would have the freedom to mix, in other words to have the number of warheads on a given delivery system that they decide and they declare. That number would be subject to on-site verification. So if we saw, as an example, if we saw the Russians testing an SS-18 missile with five or six or seven or eight, we would then expect that they declared some with that number. But the real issue would be what do they have—not what do they test, but what have they deployed. And the telemetry doesn't provide any insight into what's deployed. For that we need the combination of declarations, national technical means, and then reinforced critically by on-site inspections where we go and actually look under the hood and see what the numbers are.

Senator COLLINS. But the number of on-site inspections is also limited under New START and is less extensive than under the old START. It worries me because it seems that you're limiting the number of on-site inspections, you're allowing the Russians to choose the site, we're no longer going to be monitoring 24 hours a day what's coming out. Instead, there's this notice provision. Plus we're limiting telemetry.

Doesn't the combination of that make verification—and we've changed the counting rules. So it worries me that the combination of those factors—more limited on-site inspections, more limited telemetry, and a change in the counting rules—makes it more difficult for us to verify compliance.

Dr. MILLER. Senator, let me respond to each of those as succinctly as I can. First with respect to the numbers of inspections, the New START Treaty has 18, the old START Treaty had 28. The New START Treaty has to deal with 35 facilities, the old START Treaty had to deal with 70. That means that on a proportional basis the New START Treaty has by number of inspections—I'm sorry—by number of facilities, has greater proportionally.

Second, with respect to on-site inspections, the inspecting side chooses the site and gives advance notice, relatively short notice as well. When they get to the site for their inspection, they then will have an opportunity to select which system to focus on and therefore which, for example, which missile to pull the cover off and to look at the number of reentry vehicles. So that anything that didn't look right with respect to previous data declarations, that we gathered from our National technical means, or that looked like it wasn't correct in the database, which is constantly updated, we would then be able to go test with an on-site inspection where we

choose—where the inspecting party chooses the timing and which systems are inspected.

Senator COLLINS. Let me switch to a different issue that has been brought up several times by my colleagues, and that is the impact of New START on our ability to pursue advances in missile defense. Former Under Secretary of State Ambassador John Bolton has written that the President has essentially given Russia a de facto veto over U.S. missile defense plans, and he says as a result advances in missile defense are now effectively impossible if this START is entered into and remains in force.

Do you believe that the Phased Adaptive Approach to missile defense in Europe represents a qualitative or quantitative improvement in our missile defense systems?

Dr. MILLER. Yes, Senator, I do believe the Phased Adaptive Approach in Europe and the application of that approach in other regions will constitute a qualitative and a quantitative improvement of our missile defenses, and we have briefed the Russians on the Phased Adaptive Approach. I've done so several times, including the first time the day that the announcement was made I briefed Ambassador Kislyak, the Russian ambassador to the United States.

We have made it clear that each of the phases will involve improved capabilities and that going through phase 4 of the Phased Adaptive Approach for Europe, we will have additional numbers of interceptors with increasing capabilities deployed.

Senator COLLINS. I agree with your assessment that it represents both a quantitative and qualitative improvement, but then I have a difficult time reconciling the Russians' assertion that they would withdraw from the treaty if we increase either the quantity or the quality of our missile defense. It seems inconsistent to me.

Dr. MILLER. Senator, they understand both the capabilities of the system and the fact that it will not pose a threat to the strategic capabilities of the Russian Federation. The deployments in Europe are not going to have the ability to intercept ICBMs launched from Russia aimed at the United States and Russia understands that.

At the same time, it is very clear that we are committed not only to the improvements of our system for the Phased Adaptive Approach in Europe and elsewhere around the globe; we've also made very clear that we are committed to improving our capabilities for homeland defense. As you know, we currently have 30 ground-based interceptors and we will improve their capability as necessary to deal with the threat to which they're aimed, which is the North Korean and Iranian challenge. The Secretary of Defense, as you also know, approved moving forward with eight additional silos at Fort Greeley so that in the event we see the threat grow faster than expected, we would have the ability to add additional capability.

The Russian statement is nonbinding. It's not a part of the treaty. It concludes by noting that the issue is any set of capabilities that would give rise to a threat to the strategic nuclear force potential of the Russian Federation. We don't believe that that is going to occur, but irrespective of that, we have made clear in every possible way, through public statements, testimony, our budget, our ballistic missile defense review, and indeed discussions, diplomatic

discussions with the Russians, that we would intend to continue to improve our missile defenses to deal with the threats that we face.

Senator COLLINS. Thank you, Mr. Chairman.

Chairman LEVIN. Thank you.

We ought to, if it's all right with Senator Collins, put both the unilateral statements in the record at this time.

Senator COLLINS. Yes, thank you.

[The information referred to follows:]

Chairman LEVIN. Thank you very much.

Senator Ben Nelson.

Senator BEN NELSON. Thank you, Mr. Chairman.

Thank you, gentlemen. General Chilton, at the Nuclear Posture Review hearing this last April you stated you fully support—and I think you did as well today again—the New START Treaty and its associated reduction to our nuclear force. You stated that you were fully involved. Could you describe your role and your responsibilities that are involved in maintaining a safe, secure, and effective nuclear deterrent?

General CHILTON. Senator, thank you. My role is in a couple areas. One, I'm an advocate, so, based on the guidance given to me by the President and the Secretary of Defense, we at the command assess what is militarily required to meet that guidance. It falls into three fundamental areas. One includes the weapons themselves. So I come and support Mr. D'Agostino's programs and work closely with them to make sure that the requirements are understood for our needs for the weapons, but also his requirements are understood and advocated for to support those.

Second would be along the line of delivery systems that are required to support the strategy and the guidance. We do that through the Department of Defense in supporting the three legs of the triad.

There is another element of that as well that probably doesn't get as much visibility, and that is the nuclear command and control portion, which is also fundamentally essential to the deterrent. So you need all three of those parts and our job is not only to advocate for them, but as they are fielded to ensure they're readiness to be able to respond to any direction we might get from the President of the United States.

Senator BEN NELSON. In your opinion, would the new treaty adversely impact your ability to carry out your duties?

General CHILTON. No, sir, it would not.

Senator BEN NELSON. What are the ramifications of not putting a treaty into place?

General CHILTON. Senator, two ones that would give me concern. One is we would lose the transparency provided by the verification and inspection protocols that are in the treaty, which have lapsed since START I ended in December of last year, and I think that's very important.

Second, there would be no constraints placed upon the Russian Federation as to the number of strategic delivery vehicles or warheads they could deploy, and I think that's important to the United States, that there be limits there, limits that we would also be bound by, obviously.

Senator BEN NELSON. Thank you.

Dr. Miller, what level of verification do we have at the moment? I assume the answer is zero.

Dr. MILLER. Senator Nelson, today we would rely solely on national technical means.

Senator BEN NELSON. That's not justification for entering into a treaty that is inadequate. We understand that. But one of the questions I would have is, you mentioned the ability to look under the hood to see what the other side is doing. Does this potentially, this treaty, potentially give us the ability to look under at least the same number of hoods that we looked under during the initial START Treaty?

Dr. MILLER. Senator, proportionally the answer is yes, proportionally, because we're allowed 18 inspections per year, there were 28 in START, but, as we talked about before, there are half as many facilities under New START as there were at the entry into force of the START Treaty.

With the combination of on-site inspections, with the other verification provisions, including non-interference with national technical means, but also data exchange, notification requirements, the maintenance of an up-to-date database of the disposition of all Russian forces, and unique identifiers, which are an important extension from START, all contribute to giving us an effective verification regime.

Senator BEN NELSON. Dr. Miller, I think it would be fair to categorize your comments about tactical versus strategic review as a two-step process, step one being this New START Treaty, step two being starting the process of looking at tactical warheads. Now, there's a suggestion that somehow, since we didn't do steps one and two together in the New START Treaty, that there's something that's defective about what we've done.

What were the reasons that you didn't have the two-step process in START I? Or is it criticism that is being leveled today against the New START Treaty a criticism that could have been just as easily leveled against the first START Treaty?

Dr. MILLER. Senator, in principle that could have been. Let me just say that if we don't move forward with the New START Treaty relationship and entry into force, it will be much more challenging to try to move forward to something beyond it. In fact, it's difficult to see how we would do so, how we would then move forward with an effort to reduce strategic and tactical in both deployed and non-deployed.

This administration and previous administrations have paid attention to the potential dangers associated with tactical nuclear weapons. The Nunn-Lugar effort for cooperative threat reduction has made good progress there in terms of improving security. We believe we have a long ways to go. We would intend to do that, to continue to press on improving security for tactical nuclear weapons in parallel with negotiations on reducing tactical nuclear weapons. And we understand that, given the relative numbers at this point, that the New START Treaty is, while it's essential for establishing the verification regime and a basis for further negotiations, that from this point forward it will make sense to broaden the aperture and deal with all nuclear weapons.

Senator BEN NELSON. Well, it was a matter of prioritization with the first START Treaty, just as it is a matter of prioritization with this treaty. But second, because they weren't both accomplished in the first START Treaty, strategic and tactical, it has now become a two-step process to accomplish it at this point in time.

Are you satisfied that we've made every effort, that every effort that we're making now to enter into new discussions about tactical—are those discussions ongoing at the present time, recognizing you've got to get the first one done before you do a second one? But are discussions under way right now?

Dr. MILLER. Senator Nelson, we have made clear this administration's interest in those further discussions with the Russian Federation, and also understand that the prospect for those discussions going forward prior to START ratification and entry into force are minimal. It really will need to be, as you said, sir, a two-step process. We are engaged in our own analysis and planning at this point. We've indicated an interest, but we have not gotten at this point a positive response from the Russian Federation and, frankly, would not expect to until we're on the other side of New START ratification discussion.

Senator BEN NELSON. Well, if the New START Treaty is not ratified, what are the opportunities to go back and now start and try to talk about the tactical weapons in another treaty?

Dr. MILLER. Senator, that scenario—

Senator BEN NELSON. I know I'm asking you to speculate.

Dr. MILLER. I would speculate that that would make things much more difficult.

Senator BEN NELSON. Thank you very much.

Thank you, Mr. Chairman.

Chairman LEVIN. More difficult meaning less likely we would succeed in negotiating such reductions?

Dr. MILLER. Yes, sir, Mr. Chairman.

Chairman LEVIN. Thank you, Senator Nelson.

These unilateral statements that we've referred to are similar, are they not, to unilateral statements which were made for the first START Treaty in June of 1991, when then the Soviet negotiator and his unilateral statement said: "This treaty may be effective and viable only under conditions of compliance with the ABM Treaty"? Is that correct?

Dr. MILLER. Mr. Chairman, they are analogous in that regard and, as you know—

Chairman LEVIN. And our response to that statement was: "Unilateral statements that a future hypothetical U.S. withdrawal from the ABM Treaty could create such conditions are without legal or military foundation." That was our unilateral response, is that correct?

Dr. MILLER. Yes, sir.

Chairman LEVIN. And I'll make these part of the record.

Why, when answering questions about the unilateral statements and saying they're not legally binding, don't you refer to the almost perfect example of what happened in 1991 when the Soviets said something was going to happen if something else happened and, by the way, something else did happen, we withdrew from the ABM

Treaty, and there was no effect on the implementation of START I? Why isn't that in your answer?

Dr. MILLER. Senator, thank you for that recommendation.

Chairman LEVIN. I'm just curious. Am I missing something? It seems to me that, hey, we've been there, done that, it's proven to have no effect whatsoever.

Dr. MILLER. Senator, I believe we put that on the record at some points over the last couple of months. But we also want to note that it is in fact the case that unilateral statements are just that.

Chairman LEVIN. No, I know it has been made part of the record in other hearings, but it's not always—it's not always part of the answer. It seems to me that's the most effective answer. If it's proved its ineffective, non-binding impact before when we pulled out of a treaty and the Russians, the Soviets, then in '91 said what would happen if we did, it seems to me that's proof positive that this is not binding now. If it wasn't binding in '91, these kind of unilateral statements aren't binding now.

I would think that's kind of the clearest answer to me. But in any event, I would urge you to include that in your answers, and we will make part of the record at this time these two unilateral statements before START I.

On the question that you were asked, General, about detecting cheating and what the effect would be from a military perspective if there were cheating, there's an unclassified portion of classified Department of State verification report of July 12, 2010, and the first one that I'm going to make part of the record, the first unclassified paragraph relative to this subject—and I want to ask you whether you concurred in each of these paragraphs: "Deterrence of cheating is a key part of assessment of verifiability and is strongest when the probability of detecting significant violations is high, the benefits to cheating are low, and the potential costs are high. We assess that this is the case for Russian cheating under the New START Treaty."

Is that familiar to you, that paragraph?

[The information referred to follows:]

General CHILTON. It is, and I agree with that, Senator.

Chairman LEVIN. Now, the next unclassified paragraph on that page is the following: "Given the terms of the New START Treaty, the potential benefits to be derived by Russia from cheating or breakout from the treaty would appear to be questionable. Because the United States will retain a diverse triad of strategic forces, including single-warhead ICBMs, nuclear-capable heavy bombers, and a significant fraction of total deployed warheads on strategic submarines, any Russian cheating under the treaty would have little if any effect on the assured second strike capabilities of U.S. strategic forces. In particular the survivability and response capabilities of strategic submarines and heavy bombers would be unaffected by even large-scale cheating."

Are you familiar with that paragraph?

General CHILTON. I am, Senator, and I agree with it.

Chairman LEVIN. You agree with that.

Next unclassified paragraph: "The costs and risks of Russian cheating or breakout, on the other hand, would likely be very significant. In addition to the financial and international political

costs of such an action, any Russian leader considering cheating or breakout from the New START Treaty would have to consider that the United States will retain the ability to upload large numbers of additional nuclear warheads on both bombers and missiles under the New START, which would provide the ability for a timely and very significant U.S. response.”

Are you familiar with that one?

General CHILTON. I am, Senator.

Chairman LEVIN. Do you agree with that?

General CHILTON. I do, Mr. Chairman.

Chairman LEVIN. Finally on this page: “The combination of improved U.S. understanding of Russian strategic forces resulting from the implementation of the START Treaty, U.S. NTM”—national technical means—“capabilities, the New START Treaty’s verification provisions and a favorable posture for deterring cheating or breakout results in a New START Treaty that is effectively verifiable.”

Do you agree with that? Are you familiar with that?

General CHILTON. I’m not sure I’m familiar with that precise quote, Chairman. But, hearing it, I do agree with it.

Chairman LEVIN. Now, on the question of the telemetry, Senator Lieberman asked a question about, well, why are we—if we agreed to obtain the telemetry or exchange telemetry on five launches per year, as I understand or remember the language, if telemetry is not important why did we negotiate for five. I don’t think the answer was very persuasive on that. I didn’t understand it and I either—I think in terms of the time, I think you better, if you would, give us an answer for the record on that one, Dr. Miller.

There is sort of an apparent inconsistency. We get less telemetry, but we don’t need it. Then, as Senator Lieberman points out, if we don’t need it why did we negotiate for five? I think that the answer needs to be amplified because it was either not particularly clear or wasn’t particularly persuasive, or maybe there is no persuasive answer. But if there is one, we would appreciate your giving it a go on the record if you would. Will you do that?

Dr. MILLER. Yes, Mr. Chairman.

[The information referred to follows:]

Chairman LEVIN. Now, on the negotiating record, there’s apparently a history on getting negotiating records, which we also are going to need for the record. This is a matter for the Foreign Relations Committee, but apparently during the, I think it was the INF Treaty, there was some back and forth between the State Department on whether or not in the future the negotiating record itself would be made available. I think for the record we better get hold of that history, because it would seem, just off the top of my head, why not? Why don’t we get the negotiating record? Apparently there’s some history as to why not and why there’s been refusal before.

There’s apparently been precedent for doing it, for giving Congress or the Senate the negotiating record. As Senator McCain said, apparently in ’72 we got the record, and I think he said in ’87 we got the record. But then there was some resistance to getting future negotiating records and some, if not an understanding, some clear delineation as to the reasons why the State Department

was not in the future going to do it, which applied to subsequent treaties after 1987, I believe.

But we would need a very—even though you're not the State Department, we would need you to get for us either the State Department position on this or the administration position on why don't we get this negotiating record.

[The information referred to follows:]

Chairman LEVIN. Finally—

Dr. MILLER. Senator, let me just say that that request is pending and the administration will have a response and we will provide something for the record on the history. And you are correct that the chilling effect, the concern about the chilling effect, is a key consideration.

Chairman LEVIN. On negotiations?

Dr. MILLER. On future negotiations.

Chairman LEVIN. If you would—I don't think we made that request. I think that came from Foreign Relations, is that correct? But if you could just make sure that we get a copy of that.

I'll just have one additional question before I call on Senator Nelson, if he will yield for another minute even though his turn has arrived. This has to do with that cut in the budget that the House committee, I believe, the Appropriations Committee, made in your budget, Mr. D'Agostino. Can you tell us—I guess it was the Energy and Water Appropriations Subcommittee.

They reduced the budget by, I believe, \$99 million and they offset it in part by using \$80 million in prior year balances. What—first of all, does NNSA have \$80 million available in prior year balances? Second, what is the amount of the budget? Third, what is the amount of the increase in the budget over last year? Can you get us those three numbers for the record? If you have them on the top of your head, or give them for the record?

Mr. D'AGOSTINO. I'd be glad to do either one, sir. Just very quickly, I think just—and we'll take it for the record as well. The details are important. I haven't yet seen the details of that. We do have some prior year balances. The key on prior year balances—and this is where resources were authorized and appropriated, but because the project wasn't fully ready they're being held until the project is ready. There are a few projects. I don't know if they add up to \$80 million, and that's why we need to see the details.

[The information referred to follows:]

Chairman LEVIN. All right.

Mr. D'AGOSTINO. I'll take the rest of it for the record, sir.

Chairman LEVIN. Do you know the total size of your budget request?

Mr. D'AGOSTINO. Oh, yes, sir. It's over \$7 billion, and so therefore this \$99 million number that keeps floating around at this point is a fairly small percentage. But at this point we did scrub pretty hard to come up with this number, and I support the President's budget. So we'll need to look at the details on that.

Chairman LEVIN. I expect that you would and should, as a matter of fact. I just want to get the proportion as to what that cut is. What was the dollar increase over last year?

Mr. D'AGOSTINO. Oh, \$624 million, sir, in this particular account.

Chairman LEVIN. Thank you.

Senator Bill Nelson.

Senator BILL NELSON. Thank you, Mr. Chairman.

Gentlemen, thank you for your service. In the Nuclear Posture Review, a whole bunch of warheads in the queue for dismantlement, and that number will increase under the START reductions. What are the most significant challenges to managing this draw-down?

Mr. D'AGOSTINO. I'll take that. The difficult challenge associated with dismantling warheads is in many cases we're talking about warhead systems—I'll call them "systems"—that have been together for many years, in many cases multiple decades. So what we have to deal with is making sure that we have the safety rules down, clearly understood, so that these warheads can be taken apart safely.

We've done a lot of work at the laboratories and the Pantex plant to get the rules, the procedures, and the tooling and the training all together at the same time so that we can take apart these warheads. Our current commitment on the size of the dismantlement queue that we have right now is to get that work done by the year 2022, which is a significant amount of work.

We recognize that we'll be adding potentially more over the next few years to that queue and we're going to try to hold that date and look for efficiencies. In fact, there are some significant efficiencies because the Pantex plant tends to do better than we had originally expected to getting all that dismantlement work done.

Senator BILL NELSON. So you feel reasonably confident that you have the facilities and the skills in order to handle this reduction?

Mr. D'AGOSTINO. Yes, sir, I do feel confident. I would be remiss if I didn't mention an event that happened not too long ago, frankly, that we're working on right now. There was a significant amount of rain in the State of Texas. We had some fairly significant flooding at our Pantex plant. We're currently in the process of assessing what it will take to recover from that flooding event, and we'll be notifying the appropriate committee staff as we get that information together and work with the Department of Defense.

So our goal, of course, is to not have it impact the work that the Department of Defense needs. But we're in the middle of that assessment, sir.

Senator BILL NELSON. General Chilton, as you de-MIRV the launchers where they're carrying only one warhead, how will this enhance—how does this START Treaty enhance the stability of the nuclear balance?

General CHILTON. Senator, first there's an advantage of de-MIRVing the Minuteman system because we can then disperse those warheads, which are limited under the treaty, to other, more survivable platforms, for example, yet at the same time a potential adversary would, if they were thinking about a preemptive strike, would have to expend a large number of warheads to address the Minuteman threat, which would still stay in large single-warhead numbers.

Strategic stability, when we talk about that, it's having a posture on both sides that in the worst crisis case, the highest levels of tension, that neither side would be tempted to conduct a first strike

as their least best option. So de-MIRVing, if you have ten warheads in the extreme or even 100 warheads in the extreme on one missile, then you could envision that an opportunity—well, maybe if I strike and eliminate 100 with just 2, that's to my great advantage for a disarming strike.

At the other extreme, if there's just one there there's more stability. There's less temptation in time of crisis to attempt a first strike, a disarming strike of the adversary.

So this provides, by de-MIRVing, we make it still a very difficult target to attack and one that doesn't make sense to attack.

Senator BILL NELSON. You've described the stability. Then as you go about doing this, what are the challenges in bringing about this change from several warheads down to one?

General Chilton.

Mr. D'AGOSTINO. Senator, we're well practiced at this in our missile fields and I don't see any difficulty in this. It would just be a matter of the work that we would need to accomplish over a scheduled time period. But our crews are trained and able to both conduct uploads and downloads of the configuration of our warheads in the fields today.

Senator BILL NELSON. Mr. Secretary, tell me about how long do you think it's going to take to implement this drawdown?

Dr. MILLER. Senator Nelson, the treaty would have a 7-year implementation period following entry into force, and our intention would be to undertake those reductions spread out over that period.

Senator BILL NELSON. It's a 10-year treaty and in 7 years you're going to be doing the drawdown?

Dr. MILLER. Technically, it doesn't require that much time. But we would expect to spread the work out over a substantial part of that period, and we are currently developing the detailed plans associated with each leg of the triad, the changes that we would be looking for.

Senator BILL NELSON. Do you see any problem in implementing that?

Dr. MILLER. Sir, there's no expected problem in implementing the treaty within the 7 years. If decided, it could be done in less time.

Senator BILL NELSON. Do we think the Russians will do likewise over 7 years?

Dr. MILLER. Sir, I don't have—I don't have an assessment of that. We believe they'll be able to reach it within the 7-year period certainly. We don't have an assessment of what their plans are in terms of timing.

Senator BILL NELSON. But they have to under the terms of the treaty, they have to accomplish it by year 7?

Dr. MILLER. Within 7 years after entry into force of the treaty, they would need to meet their limits.

Senator BILL NELSON. Thank you, Mr. Chairman.

Chairman LEVIN. Thank you very much, Senator Nelson.

I have no further questions and the hearing is adjourned. Thank you very, very much for your testimony.

[Whereupon, at 11:44 a.m., the committee adjourned.]