

**THE CARNEGIE ENDOWMENT FOR INTERNATIONAL
PEACE**

“THE FUTURE OF VERIFICATION”

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MS. DORI ELLIS: Thank you for joining us here for this panel this afternoon. I'm Dori Ellis. I'm the Director of International Security Programs at Sandia National Laboratories, and it is my privilege to introduce for you this session on verification for nonproliferation kinds of activities. Is that better?

The United States has over the last 40 years or so entered into a number of treaties and agreements that have had varying levels of verification measures attached to them, which you will see here missing, of course, is the Comprehensive Test Ban Treaty, which still is an outlier.

As we have moved from a relationship with our former adversaries in the Soviet Union to a relationship with the Russian Federation that is much more congenial, if you will, or much more trusting, we have moved from a regime where we had unilateral verification measures to one where there is more and more additional cooperative measures, and our confidence in those measures gets higher as the transparency increases. However, as we moved to agreements, and so forth, with other entities with whom we don't have that long-term relationship, we may want to think about having verification measures that are more rigid or more intrusive, just as ours were during the START treaty.

In 1961, when the United States was first negotiating the Limited Test Ban Treaty, the laboratories and DARPA were involved in beginning to look at how we might unilaterally verify that those treaties were being kept. There were three different *vela* parts, *vela* being the sail, which is a Greek word, the first being Vela Hotel. This detected high air burst or space burst nuclear tests, and this satellite was developed jointly by Los Alamos and Sandia National Labs and was launched in 1964 after the treaty was signed into agreement in '63.

As we have developed the relationship since the fall of the Soviet Union and would become more involved with our colleagues in Russia, we developed a variety of additional verification measures that I would call closer to transparency than verification. For the INF Treaty, we really entered into an inspection regime, which was somewhat intrusive. The difficulty we got into with the INF regime was that the technical folks were not called into backstop until much later in the process, so that the INF Treaty was actually signed before verification methodology was begun, which meant that we had about six weeks to develop a prototype and three months to develop a full-size prototype for the technical onsite inspection system.

We've been involved since the early '90s on some verification and remote monitoring activities. The Kurchatov Institute in Russia, in Moscow, is the site of one end of a remote monitoring facility. The Argonne West plant in Idaho Falls is the other end of that remote verification facility, and what we have is almost real-time Internet

access to the vaults at both places, and you can see people coming in and out, you can see the material, and you can do that 24 hours a day at your desire.

Some of the future verification challenges that we're going to face though, like for example if the DPRK does, indeed, back away from its nuclear program, could fall into a more or less difficult regime. Scenario one -- if you have no proliferation sensitive nuclear activities, everything is dismantled and there is a safe and secure removal of existing material and technologies, then your verification challenges really are looking at the completeness of the declaration, including their weapons, dismantlement of anything that's existing, removal of the material and technology, and also detection of any future clandestine activities.

A more difficult scenario, of course, is what the DPRK has asked for, and that is that light water reactors are allowed under that regime. The verification challenge then is everything included under scenario one, but also the detection of any diversion from that allowed activity into a clandestine weapons program. So with that, let me just remind you that verification is and has been a critical element of our negotiating strategy, a broad range of cooperative activities and non-cooperative have been developed and fielded for verification. So we have an arsenal, if you will, of verification technologies.

Some of the recent events, for example, the SORT Treaty of 2002, brings into question how we need to move forward in the verification process, and some of the new challenges that we face, whether Iran, North Korea, Syria, may also pose some additional, very difficult verification challenges.

So with that, let me introduce the panel. Today what we have done is brought together four veterans, if you will, of the arms control and treaty agreements activities over the years. We've asked the four of them to look at this from slightly different perspectives. We'll start off with James E. Goodby, who is currently a non-resident senior fellow at the Brookings Institution. He was involved in Foreign Service as early as 1952. He was deputy to the Special Adviser of the President and Secretary of State for the Comprehensive Test Ban Treaty; was involved in the negotiations over the Nunn-Lugar Cooperative Threat Reduction activities, START I, and is also an author. He's co-authored *The Gravest Danger: Nuclear Weapons*, co-authored with Sidney Drell.

Our second speaker this morning will provide a Russian perspective to the history of verification. Alexei Arbatov is the co-chair of the nuclear nonproliferation program at Carnegie Moscow Center. He also took part in negotiations in START I, in working groups on the Intermediate-Range Nuclear Forces Treaty and the Conventional Forces in Europe Treaty and START II.

Paula DeSutter is currently the Assistant Secretary of State for Verification, Compliance and Implementation, and she today is responsible for supervising all matters relating to verification and compliance with nonproliferation disarmament agreements. She personally led the United States effort to assist Libya in eliminating its nuclear and chemical weapons programs. She has previously been on the professional staff of the

Senate Select Committee on Intelligence. She's held positions at the Arms Control and Disarmament Agency and the National Defense University.

Finally, we'll ask Michael Krepon to look forward. Michael is a co-founder of the Henry L. Stimson Center, and he asked me to remind you he is an author. His most recent book is *The Cooperative Threat Reduction*, which he reminds me is now on paperback. But he has been involved in the strategic arms control, anti-missile systems, nuclear risk reduction and a number of other arms control activities.

So with that let me ask Jim if he would speak to us for a moment.

MR. JAMES GOODBY: Dori, thank you very much. I hope this microphone is working, can you all hear me back there? Good.

Well, I am going to begin with a Goldwater-esque proposition, which is that in the world of national security affairs, transparency is not a virtue, and secrecy is not a vice. I'm making the point simply that international cooperation to promote transparency is not a natural or an easy or an automatic thing for any nation to engage in, and that includes the United States.

This phenomenon I suggest to you, block security cooperation between the Soviet Union and the United States during the Cold War, and I suggest to you also it is preventing Russia and the United States from moving to a new level in their relationship at the current times.

It was customary during the Cold War to assign all blame to Moscow, but the Soviet Union, which, in fact, did see secrecy as a strategic asset, was not opposed to transparency in all circumstances, nor was the United States always an unqualified supporter of it in all circumstances. Transparency achieved through intelligence means was not enough during the Cold War and it is still no substitute for cooperative transparency.

Intelligence can prevent the worst from happening, but it cannot change relationships. A few stories from my own experience I think will set the stage for a discussion of the future. In a memorandum to John Foster Dulles, dated September 8, 1953, Eisenhower wrote that, quote, "Our own preparation could no longer be geared to a policy that attempts only to avert disaster during the early surprise stages of a war and so gain time for full mobilization. Rather, we would have to be constantly ready on an instantaneous basis to inflict greater loss upon the enemy than he could reasonably hope to inflict upon us." Quote from Eisenhower, '53.

This generated, of course, an acute need for transparency, and Eisenhower's second term was a period of very rapid advances in unilateral intelligence gathering aimed at understanding the threat posed by Soviet missile and nuclear developments. I'm thinking, of course, of the U2 and the programs which led to the first US reconnaissance satellites. But not content with unilateral intelligence, Eisenhower sought cooperative

U.S.-Soviet actions to enhance transparency. He had good reasons to do this because in the years following Stalin's death in 1953, the Soviet leadership wanted a relaxation of East-West tensions and more engagement with the West. In 1955, Eisenhower proposed an exchange of military data. He called it exchanging blueprints of our military establishments from one end of our countries to the other. Reciprocal air (technical difficulties; momentary loss of audio) open skies would confirm the accuracy of this data, but there were different views about what transparency was, whether it is good or bad, which has persisted, I think, to this day.

In the first year of his second term, 1957, Eisenhower was still hoping that a cooperative threat reduction system based on cooperative transparency could be achieved. His hopes then were vested in Harold Stassen, his chief disarmament advisor. Stassen, at age 50, was not quite the boy wonder of Republican politics that he had been and he was looking for success in the UN Subcommittee on Disarmament that met in London that year. Two nuclear issues were high on the agenda, a fissionable material cutoff -- that was there then too -- and a nuclear test ban, also there then, too. An inspection zone to prevent surprise attack also was high on the agenda.

Now, Eisenhower was interested on all three of these issues, even though many people in his administration were not.

On June 14, 1957, Ambassador Valerian Zorin proposed a two or three year moratorium on nuclear testing. Zorin also proposed an international commission to supervise a test ban and he proposed the establishment of control posts in the Soviet Union, United States, the UK, and in the Pacific. Stassen might have been able to exploit this opening, but by that month, by that month of June, he had damaged his credibility in Washington quite seriously because of his handling of the other major issue, inspection zones.

I watched Stassen end his career and his usefulness as a disarmament negotiator on May 31, 1957 when I accompanied him to a meeting with Zorin. Stassen had been in Washington in late May for some NSC meetings and he returned with the word that he had new and more flexible positions. But he then made a disastrous decision. Without waiting for new instruction from Washington, he drafted a paper outlining the new US ideas, and without consulting with the allies, he presented it to Ambassador Zorin. It included an idea which Chancellor Konrad Adenauer, when he heard of it, interpreted as a zone of inspection focused on Central Europe. And, of course, Adenauer feared that this would seal the division of Germany. So within days, the State Department notified the Soviet government (technical difficulty; momentary loss of audio) two technical conferences, one on monitoring a test ban, the other on preventing surprise attack.

The 1958 meeting of technical experts on the proposed nuclear test ban was a breakthrough in itself. It was the first time that Soviet and Western scientists had worked together to produce a monitoring system, which also included on-site inspections. That agreement led to a US-UK-Soviet test ban conference accompanied by a test moratorium, proposed the previous year, of course, by Zorin, now proposed by Eisenhower, and that

moratorium lasted well into 1961, well into Kennedy's term, the first year of his term. But, again, opportunities were lost, and by 1961, Kennedy's first year in office, Khrushchev seemed to have lost interest in a test ban treaty.

Soviet atmospheric testing resumed in early September 1961, and it lasted for two months. The US followed suit, of course.

After the Cuban Missile Crisis in 1962, Khrushchev and Kennedy agreed to make another effort at a test ban. I was a member of a US delegation headed by Bill Foster, the first Arms Control and Disarmament Agency director, that met secretly with the Soviets in New York in January 1963. The two sides were still far apart over how many on-site inspections would be required. Khrushchev was ready to accept two or three, but this was not sufficient in Kennedy's judgment to get the Senate to ratify a treaty. I advised Foster to try to engage the Soviets in a discussion of what actually be done in an on-site inspection, hoping the quality might make up for quantity. But the Soviets had no interest in that or in exploring the location of unmanned seismic stations. But in the early summer of 1963 -- and I think because of the growing split with China, although there are other theories -- Khrushchev decided to opt for a limited test ban treaty, and, in July, that treaty, which had been on the negotiating table in Geneva for over a year is what Averell Harriman finally initialed in Moscow. But, of course, it contained no requirement for cooperative transparency. It was not the powerful anti-proliferation tool that a comprehensive test ban treaty would have been.

Not until 1996 -- 1996, 38 years after their first negotiations began, was it possible to secure a comprehensive test ban treaty with an international monitoring system that included not only monitoring stations, but also a provision for on-site inspections, and that treaty was shot down, of course, by the US Senate in 1999 over concerns about verification, among other things.

In 2000, General John Shalikashvili, former Chairman of the JCS, at the request of President Clinton and Secretary Madeleine Albright, consulted with several senators, about 30 of them altogether, to see whether the treaty could eventually be ratified, what had to be done to cure the problems they saw. I was his deputy, and he and I and Nancy Gallagher, now at the University of Maryland, prepared a report and met with President Clinton on January 5, just, of course, a few days before he left office in 2001. Clinton said to us that he would ask President-elect Bush to reconsider his opposition to the treaty. He said many Presidents come into office and decide later on that they were wrong in their initial position or thinking. Well, if he did that, Clinton's advice was ignored, and so was the report that General Shalikashvili submitted. It had concluded that a comprehensive test ban was in our interest and could be monitored.

So, today, we have a testing moratorium that has been in effect since 1992 monitored by US intelligence, with the help of others, of course, but without the support of the cooperative transparency that the treaty would have provided, to a great extent.

The story of Eisenhower's other 1958 initiatives are equally poignant, I think. I was the representative of the Atomic Energy Commission in the Surprise Attack Conference which met in Geneva in late 1958. The head of that delegation was, again, Bill Foster before he became head of the Arms Control Agency. He assembled the largest delegation in US arms control history. There were over 100 persons there. It's the only delegation I've ever been connected with that required an organization chart, complete with boxes and lines of authority – and you can see this if you like -- just to show what people were supposed to be doing. And he also brought in some real heavyweights, and one of them, anyway, Dick Garwin, is here. There were others, Albert Wohlstetter, George Kistiakowsky, Jerry Wiesner, Harry Roland, to name just a few. There were others who later on became heavyweights, but those few certainly were distinguished people at that time. And also there was a very high level and very strong military contingent.

The US delegation came with the idea of engaging in a discussion of monitoring strategic nuclear delivery vehicles. Ambassador VV Kuznetsov, the leader of the Soviet delegation, had studied in Pittsburgh, Pennsylvania, that is, and he had a very clear and incisive way of analyzing issues when he was not indulging in stock propaganda rhetoric, which he did from time to time. He was a worthy advocate and could have been a worthy negotiating partner under different circumstances.

Kuznetsov and other Eastern delegations argued that transparency, again to use a contemporary term not used in those days, would not in itself reduce the danger of surprise attack. Only steps to reduce concentrations of armed forces and to ban the stationing of weapons of mass destruction in forward areas would do that. The Eastern delegations also asked for a ban on flights of bombers loaded with nuclear weapons, and they also proposed zones of inspection.

Now, ever since Eisenhower had unveiled his data exchange and aerial monitoring proposal, Moscow had argued that transparency was not always a positive factor, and Kuznetsov followed this line in responding to the Western agenda. And here I quote. "The final result," he said, "would be a contest to see who acquires the most military information. It is surely clear that the conference would then achieve nothing but an increase in mutual distrust and suspicion among the powers. The Soviet government cannot act as an accomplice of those who are striving not for the prevention of the danger of surprise attacks, but for the acquisition of intelligence data on present-day types of atomic, hydrogen rocket and other weapons at the disposal of the Soviet Union." That's Kuznetsov speaking.

Their argument that transparency was undesirable even borrowed from a book, which was new at that time, written by none other than Henry Kissinger, entitled, "Nuclear Weapons and Foreign Policy." The Czech representative took pleasure in quoting the following passages. This is from Kissinger's book. It's taken slightly out of context, but the quotation is accurate. "The relative ineffectiveness of inspection in preventing surprise in an all-out war is due to the nature of strategic striking forces. A system of inspection may well make a tense situation even more explosive. The value of

an inspection system depends not only on the collection, but also on the interpretation of facts. Instead of reducing the danger of an all-out war, inspection systems may make more likely a showdown caused by the misunderstanding of an opponent's intentions." Not on our side at that point.

I thought that George Kistiakowsky, a leading scientist in the Manhattan Project and later President Eisenhower's science advisor, did the best job of defending transparency. By 1955, he argued "It had become impossible, infeasible to assure through inspection that nuclear weapons had been eliminated. Therefore," he said, "the only practical step to reduce the danger of surprise attack by nuclear weapons is to monitor the vehicles of delivery. Cooperative systems of observation," he said, "could reinforce national warning systems and improve reliability and lengthen the warning of an impending attack." This, I thought, was a very promising area for exploration, but was not picked up in that conference at all. In fact, it has still not been picked up to the extent that it could be and should be.

The conference adjourned without any meeting of the minds after several weeks of futile debate.

Fast forward now about a quarter of a century to the 1984-1986 Stockholm Conference on Confidence and Security Building Measures in Europe. Although that conference focused on conventional armed forces, it was, in many ways, the reincarnation of the 1958 Surprise Attack Conference in the sense that the United States again argued that transparency could reduce the danger of surprise attack. Transparency in and of itself aimed at certain things, not to verify something, necessarily. By that time, I was the lead negotiator making that same argument.

The Soviet delegation started out in a mode very much like Kuznetsov in 1958. They proposed a series of old Soviet non-starters, but Gorbachev, in office by that time, was not Khrushchev, and Oleg Grinevsky, my very able Soviet counterpart, had the flexibility to respond to changing times. The negotiation was successful this time. The final agreement, just two of the points in it: observers at military exercise and the first requirement for on-site inspection in the Soviet Union that the Soviet Union had ever accepted.

Now the Russian-American relationship today is not what most of us would want it to be, and escaping from the shadow of the past may be dependent on cooperative transparency still difficult to achieve. There are many examples of this. In my negotiations on the Nunn-Lugar program, I found lack of access to sensitive sites in Russia hindered our efforts to provide assistance. I ran into roadblocks in my negotiations in 1995-96 to include some measure of cooperation, transparency, irreversibility into the process of US-Russian warhead dismantlement. Since then, I have seen problems at implementing President Clinton's initiative to enhance US-Russian cooperation in early warning, and I have seen difficulties in implementing President Bush's commitment to US-Russian cooperation in ballistic missile defense.

If we cannot do these things, all of which require some degree of cooperative transparency, I think it will be difficult to really transform the US-Russian relationship. It's a sad commentary, I think, that just as in 1953 both sides still believe that they must be – to use Ike's phrase -- constantly ready on an instantaneous basis to launch their strategic nuclear forces. I think we can do better.

Thank you.

(Applause.)

MR. ALEXEI ARBATOV: If anybody does not believe in Hegel's laws of dialectics, this person should study dialectics of arms control and verification systems. The practical arms control in the area of strategic arms started almost 40 years ago and the first fruit was a very simple treaty, which took two pages, which actually didn't even state any figures or ceilings as limitation. The composition and number of forces on Soviet side and American side were stated in the protocol and were not distinguished as to various types of weapon systems or various types of weapons programs. Now, almost 40 years later, we are living in a different age. Now, we are living -- unfortunately START II was never brought to fruition, but we are living within the framework of START I, which provides for enormous verification system, which includes on-site inspection, cooperative measures, and many other things. Let me just list some of those.

But before doing that, I will remind you of one episode, probably you know it, probably not, which happened in early '70s. One representative of a Russian – a Soviet academic institute was summoned to the Central Committee of the Communist Party, and when he came there he met very important officials who asked him, "What have you done with recent publications on military affairs?" And the fact was that this institute translated and published some data on Soviet strategic forces which were published in the United States by official sources, by the American Department of Defense. And this representative said, "Well, we have translated and published what Americans have written about Soviet strategic forces." Everybody was indignant. They said, "How could you do that? Do you know how close it is to real forces of the Soviet Union?," and certainly there were sanctions taken against this academic institute.

Another episode happened during SALT I negotiations when General Agarkov, who was representative of the Soviet Ministry of Defense at the negotiations, summoned to a corner the military, the general who was on the American delegation and told him, "Please do not discuss all these weapon systems and numbers. You'll have to keep in mind that we are not alone in this room. There are civilians all around us."

Well, that was a stone age of strategic arms control. What we have now -- we have now a very different system, a very different situation with respect to both transparency and inspections.

Within the framework of START I, we have 13 different types of inspections, inspection to verify initial data, challenge inspection, which can be carried out at a very

short notice virtually at any facility of strategic forces. The infrastructure of strategic forces is to be largely open to scrutiny. There are provisions of demonstrations of strategic arms to each other, inspections after dispersal of some types of strategic weapons. The treaty provides for an extensive range of notifications. This means making available to each other data on technical characteristics of strategic offensive arms, which is listed in memorandum of understanding of roughly 300 pages.

I mentioned that the first treaty took two pages and three pages of protocol. START I took 100 pages and 400 pages of protocols, memorandums and various other documents.

New data on any change taking place in this sphere is to be made available: notification of missile tests, prohibition on telemetry encryption, of any telemetry encryption, cooperative measures to help the other side, national technical means of verification, such as partial withdrawal of mobile missiles from the fixed shelters, opening up of the roofs of silos, demonstrating the number of warheads and missiles, and many, many other comprehensive ways to provide for ample information to the other side.

Now, what about Hegel's dialectics? After this treaty, after several years of negotiations, we've come to a new treaty, which is called SORT, Strategic Offensive Reduction Treaty of 2002, which is based on one page, two figures only, and no verification system, no counting rules, no dismantling procedure, no schedule of dismantling. Is it not the Hegel dialectics full-circle that we've come? The argument is that we do not need -- after the end of Cold War; we do not need such a comprehensive and sophisticated system of transparency and verification because we are not enemies anymore.

This is not so much Hegel, but rather Freud, because it's not mentioned that we do not need to target thousands of nuclear warheads on each other. We still do. Instead, it is being pointed out we do not need this verification system, we do not need transparency, we do not need treaties because we are not enemies. This sounds very strange to me.

Now, another line of this dialectics is that verification system started as a timid servant of arms control, to provide possibility to verify ceilings and numerical reductions of strategic arms control. But eventually it expanded so much -- and I mentioned START I, which has a classic example of comprehensive verification and transparency -- it expanded so much that it has become much more important than even the treaties and their limitations.

I would dare to suggest that in the course of 40 years of negotiations, the expansion of verification system and making it deeper, more cooperative provided for much greater relaxation of tensions in strategic and political area, for much greater trust, for much greater certainty than even the arms control limitations, per se, and this is a tribute to enormous value of verification system.

Unfortunately, due to this Freudian approach, we presently do not have serious arms control treaty, which is to supersede START I. Of course, we need it because in order -- we are not enemies anymore, but in order to become real partners we need to do something which was the state of mutual nuclear deterrence, which still persists. Partners or even allies cannot have relations based on mutual nuclear deterrence. In order to do something with that, we need a new type of arms control. However, neither political leadership of the United States, nor political leadership of Russia are presently ready to contemplate new type of arms controls that might provide for doing away with mutual nuclear deterrence.

What do we do? How do we proceed under these circumstances? Well, before the policy of the leadership changes, or before the leadership change themselves, we have to use the existing verification and transparency system as a cushion which provides us with certainty, trust and understanding. So the first proposals, which I would like to make and which relates to this particular subject, is that regardless of whether we do something in providing SORT treaty with verification system and counting rules or not, we ought to extend all transparency provisions of START I indefinitely.

As you know, START I ends by the end of the year 2008. After that and presently, neither the United States nor Russia are willing to contemplate extension of the treaty. So, what I would like to propose is indefinite extension of the transparency system, which is within those additional documents to START treaty, and also retain verification procedures, which are needed to make sure that transparency system is correct, that the data which two sides exchange is the correct data.

I think that, that would be a very important endeavor and would gain us time before the policies of the two states come to understanding of the fact that we cannot cooperate to oppose new threats of the 21st century -- terrorism, weapons of mass destruction proliferation, and many others, as long as we continue to base our strategic relationship on the foundation of mutual nuclear deterrence, but it will take time to realize that and to do something about it.

In the meantime, we will have to preserve the transparency, verification, notification of the system in order to provide the framework for future breakthrough, which hopefully we will be able to achieve.

Thank you.

MS. PAULA DESUTTER: I am really pleased that I was invited to participate in this event, and in this conference.

We have been spending a lot of time trying to think about all of these issues, verification and compliance enforcement, especially verification. In the '60s, '70s and '80s, as has been laid out, there was a lot of discussion about whether or not we could have noninterference with national technical means, and then there was a lot of

controversy and discussion about whether or not on-site provision should be allowed, as you've just heard. But each of those steps required a change in the thinking about how to approach these issues.

I became the Assistant Secretary for Verification and Compliance in 2002, and upon taking that job I thought that we needed to have some rethinking, reexamination of some of the underlying concepts behind verification and compliance, and I've been seeking and we as an administration have been trying to get new approaches to each of these, and I'll walk through them. They fall primarily into four areas, some of which are our responsibility to do better, and we're trying to do that.

The first is that the United States has been working hard to try to make sure that we get our own house in order when it comes to examining the concepts underlying verification, in organizing ourselves to do this important work and ensuring that our ability to assess verification and compliance is both robust and rigorous. So the first is getting our own house in order and thinking these problems through.

Second, resulting from the examination that we've undertaken into verification concepts, we have concluded that the old term "national technical means of verification" and the concepts and practical implication of that term need to be replaced. The term that we've selected is national means and methods, and I will get into it a little bit about why and the conceptual approach that it represents. Also, as a part of that examination, we have sought to adapt some of the older concepts, but also this has led us to trying to take a more balanced approach to the relative merits of cooperative measures and how we need to balance cooperative measures with national means and methods.

Third, we believe that consideration of verification requirements independent from consideration of the challenges of compliance assessment and compliance enforcement makes no sense, and finally, we are trying to do a better job of articulating our views on these matters and the reasoning behind them.

Let me start with addressing the evaluation of concepts and the assessments of compliance and verification.

One of the first elements that I should mention in describing the new US approach is the creation of the bureau that I lead. Creation of the Department of State's Bureau for Verification and Compliance was mandated by Congress when the US Arms Control and Disarmament Agency, known as ACDA, was merged into the Department of State. I'll fess-up. I worked in the Verification Bureau at the Arms Control and Disarmament Agency, so I have a long and sordid history with this.

Congress has long taken a keen interest in and been a key advocate for verification, compliance and enforcement issues, and they believe strongly that the Verification Bureau from ACDA needed to be retained as a separate entity led in the US at the Assistant Secretary level.

So our bureau was created in law and charged with three key missions. Assessments of compliance, seeking to make new agreements as verifiable as possible and assessing how well we have done, and working with US intelligence community to urge collection capabilities to maximize verifiability of any agreement. More recently, Secretary Rice has enhanced our bureau by moving responsibility for the implementation of some existing agreements and for missile defense and some elements of space policy to the VC Bureau, which she has now renamed the Verification Compliance and Implementation Bureau.

In meeting with the first responsibility to assess compliance since arriving as Assistant Secretary in 2002, we have issued two reports entitled “Adherence To And Compliance With Agreements.” These are commonly called our noncompliance reports.

The most recent of these was issued in August of this year. We’ve worked hard to try to strengthen the rigor of these highly classified presidential reports, which are submitted to Congress by the Secretary of State on behalf of the President, to make them more readable and to try to ensure that the report is a solid document to explain how we assess other nations’ activities against their obligations and commitments.

The reports include assessments by law of not just those activities which we believe violate agreements or commitments, but also activities about which we have compliance questions. In this way, the report serves as an early call to action for policy makers. We have also tried very hard to include as much information as possible in the unclassified version of the report, and these versions are available to anyone who is interested on the Department of State Website.

Upon my arrival as Assistant Secretary, it seemed to me that our concepts of verification and compliance needed to be reviewed and strengthened. In some cases, this merely required revisiting earlier articulation of our verification concepts and policy, and in some, it required adapting our concepts to today’s realities.

We still use two different terms to describe our assessment to verification. The first is the degree of verifiability, this is a technical assessment in which we evaluate the wording of an agreement and what it seeks to govern and weigh it against our ability to detect noncompliance.

The second term is effective verification. In assessing whether verification is effective, the US considers an arrangement or treaty to be effectively verifiable if the degree of verifiability is judged sufficient given the compliance history of the parties involved, the risks associated with noncompliance, the difficulty of response to deny the violators the benefits of their violations, the language of the measures included in the agreement and our own national means and methods of verification.

The degree of verifiability must be high enough to enable the United States to detect significant noncompliance or a pattern of noncompliance and sufficient time to

counter the threat presented by the violation and deny the violator the benefits of his noncompliance.

As I mentioned, our assessments of verification are informed by factors that go beyond technical and legal assessments, including the proven reliability of our negotiating partners in adhering to agreements. The incentives given parties may have to cheat on a given agreement, the difficulty of responding to deny a violator the benefits of the violation and the relative significance of cheating pursuant to the obligations.

Significantly, this means that if we cannot get violations corrected and cannot deny violators the benefits of their violation, all of our verification assessments are likely to be negatively affected.

So, how do we think about the terms national means and methods and how it balances with cooperative measures? In the early years of arms control, the use of satellite imagery for verification was controversial. The US fought hard in our early arms control agreements with the former Soviet Union to include agreement that these forms of information collection called their National Technical Means, or NTM, could be legitimately used.

Later especially in the Intermediate Nuclear Forces or INF Treaty, we were able to agree on on-site and other cooperative measures. These were significant elements that were later included in the strategic arms treaties and in the chemical weapons convention. Over time, however, a common misperception developed that led many to conclude that a combination of international data declarations, international cooperative measures, including technical measures, and on-site inspection regimes themselves would be sufficient for verification. Nations that did not have access to US-style NTMs were inclined to reject NTM as a means of verification and advocated reliance on international inspectorates. In fact, data declarations, cooperative measures, and on-site inspections can provide useful and often invaluable information. They are useful tools for investigating indications of noncompliance as we've seen the IAEA do in Iran, for example, and for detecting inadvertent violations.

However, inspections provide information according to the agreed access negotiated by the parties and only provides such information as is available at the specific time and place of the inspection. They provide at best a snapshot in time. Even cooperative measures such as remote cameras and seals for continuous monitoring, while quite powerful, are limited to those locations where they are employed.

The degree of verifiability should not, therefore, be judged solely on the basis of whether or not an agreement contains detailed provisions for data exchanges, on-site inspections or other types of cooperative arrangements. Recall that on-site inspection can only tell you what is happening at the time and place of the inspection and only to the degree that inspectors have access and capability to discover whether or not noncompliance is taking place at that time, at that location. When, for example, agreements seek to govern dual-use activities, an inspector may be able to tell you that

dual-use activities are underway, but he's not very likely to be able to give you salient information whether the activity is of one intention or another.

On-site measures or tools that may let the inspected party demonstrate that the activities observed are consistent with the declaration and may provide some confidence to other states for complying.

They may or may not, however, facilitate detection of noncompliance even at the time and place of the inspection. Moreover, if significant prohibited activities can take place at other times or at other locations, the efficacy of such measures may be quite limited.

Some have come to believe that the mere inclusion of anytime, anywhere inspections will solve the verification challenge. The problem in addition to the challenges associated with all on-site inspections is that you have to know where to go and you have to be able to get there at the time the violation is underway and be able to confirm that the activity detected is noncompliant. Such challenge inspections, even those of the anytime-anywhere variety, may have value but again, they are not a panacea. Such cooperative measures must therefore be supplemented by the best possible means of trying to determine what is happening at times and locations other than those subject to inspections.

What is new in this regard is that there are sources of potentially significant information well beyond what was imagined in the past. Commercial satellite imagery is available to all nations and to international organizations. Open source information in quantities and qualities that was not possible before the development and expansion of the Internet are also available.

Nations, therefore, have access to information that they didn't have when they rejected the old concept of national technical means. We believe, therefore, that this term needs to be replaced with a new concept of national means and methods, enabling us to recognize that all nations can play a constructive role in conducting their own compliance assessments either on a national basis or together with others.

The United States considered all these factors, for example, when we conducted our verification assessment of the proposed Fissile Material Cut-Off Treaty. After two years of concerted efforts studying the problem, we concluded that an internationally and effectively verifiable treaty is not realistically achievable, even with a highly intrusive inspection regime. Having come to such a conclusion, we believe that attempts to negotiate good enough cooperative means for verification, as some have suggested, are not only futile, but harmful delaying completion of the treaty.

Furthermore, an ineffective regime could lull the international community into a false sense of confidence that obligations are being adhered to. It is for this reason that the United States has urged our colleagues at the conference on disarmament to join us in supporting an FMCT negotiating mandate that either it does not refer to verification

measures or says that verification would be by national means and methods. Pending the conclusion of such a mandate and negotiation of an FMCT, the United States has and continues to call on all nuclear weapon states and states not party to the NPT to make a public commitment not to produce fissile material for nuclear weapons or other explosive devices. Four of the five nuclear weapon states, including, of course, the United States have also made such a commitment.

There has been a view for too long that nothing can be done without the creation of an international institution and long-negotiated access agreements. We are trying to move to a new approach where we adapt our tools to the task at hand. Suppose verification were done by national means and methods and one nation gets information of concern. Some have argued that without a negotiated agreement for dispute resolution, nothing could be done. I think that that is old think. Suppose we simply ask a country if we and perhaps a group of like-minded countries with additional tools could come and take a look at something we have compliance questions about. They might say no, but they can do that even with agreed procedures. They might say yes, and we might be able to resolve at least a part of our compliance concerns. This, I believe, should be considered as a part of our future approach to verification and compliance. But however verification has to be implemented, it loses relevance if verification of noncompliance has no consequences. The United States and most other nations have sought to supplement our national efforts at strengthening security with multilateral tools.

These tools have included arms control nonproliferation and disarmament agreements. When the United States adheres to a treaty, we want to discover noncompliance early enough to be able to deny violators any benefit from such noncompliance, thus the United States views verification and compliance and compliance enforcement as critically interrelated as being three legs of a stool that cannot stand if one leg is removed. To put it simply, verification is designed for detection and deterrence of noncompliance. If detection has no consequences for the violator, then verification has no meaning and deterrence is unachievable.

It is undeniable that today the international community is facing significant challenges to our nonproliferation regimes none more dangerous than verified and intentional noncompliance with nuclear nonproliferation obligations by North Korea and Iran.

In both of these cases, parties to international agreements undertook actions over years and even decades to cheat. Their noncompliance isn't what is sometimes called technical, these weren't accidents or oversights. If they were, it would be reasonable to expect that expressions of concern would result in timely resolution. We have seen efforts of resolution of unintentional noncompliance work numerous times, including in cases described in the US noncompliance report I referred to earlier.

In Iran and North Korea, we are dealing with cases of intentional noncompliance. These countries made strategic decisions to pursue programs and undertake activities that they knew full well violated their obligations. They invested vast national resources to

pursue these covert programs, resources that their people may well have wished were being invested in other ways. These programs were pursued covertly. The regimes took advantage of the period before discovery to reap benefits, such as technical cooperation and assistance which flowed from being parties to the nuclear nonproliferation treaty.

We believe that if arms control nonproliferation disarmament agreements and commitments are to support the security of all nations, then all nations must respond when confronted with noncompliance. Unilateral US action to encourage compliance is not enough. This is one of our big realizations. We need to have everyone working together. Detecting a violation is not an end in itself; it's a call to action. Without strict compliance and without the concerted action of all parties to insist upon strict compliance and to hold violators accountable for their actions, the national security of all nations will erode and global stability will be undermined.

Much of our diplomacy is therefore focused on convincing states to take seriously, more seriously, their role in this effort and not acquiesce quietly in violation to fundamental obligations.

We believe also that diplomatic cooperation tools that we used to bring about – to bring about or enforce compliance should be dependent on our strategic requirements. For this reason, the administration is put forward the President's proliferation security initiative on missile defense efforts, both nationally with others, are designed to deny those that have circumvented efforts to slow or stop missile proliferation, the benefits of their illicit trade and to deter such programs by ensuring that the missiles they develop will not be able to be used effectively to threaten peaceful nations.

MS. ELLIS: We're getting a little short on time.

MS. DESUTTER: All right, let me wrap up.

MS. ELLIS: Okay.

MS. DESUTTER: I will just conclude by saying we are trying to be adaptive, we are trying to take those things that are the best elements of the programs of the past and either renew them or adapt them to the current circumstances, and in every case, we are trying to work more closely with others to see how we can do this best.

Thank you.

(Applause)

MR. MICHAEL KREPON: It's not everyday you can get the head of Sandia International Security programs to work your slides for you.

(Laughter)

Well, I want to thank Michael Katz-Hyman, my colleague at this Stimson Center, for helping me to pull this together.

So who needs verification? Who needs intrusive monitoring? There are fundamental policy documents, national security strategy documents that the administration has put out. I would call your attention to one supremely important paragraph, at least in my judgment, from the White House's National Security Strategy issued in September 2002. To defeat this threat, the most dangerous weapons in the most dangerous hands, we must make use of every tool in our arsenal, and this document specifically cites military power, better homeland defenses, law enforcement, intelligence, vigorous effects to cut off terrorist financing. Every tool?

If you go through the foundation documents that the administration has put out, they do list various tools. I'll call your attention to the ones that are listed in the order of importance based on these documents -- homeland security, military capabilities to dissuade, deter and defeat, using our R&D, intelligence, diplomacy, strengthened alliances, partnerships, and arms control multilateral export controls and threat reduction assistance.

Now, I had to look pretty hard to find that last bullet, there is one complete paragraph in one of these documents that addresses this particular problem of arms control, multilateral export controls and threat reduction assistance.

You can find that on paragraph 18 of the administration's national strategy to combat weapons of mass destruction. I will not go through all of this, but I would call your particular attention, so the administration's promise to work hard to improve the effectiveness of and compliance with various regimes, and to promote new agreements and new arrangements to deal with this central threat to our well being, the most dangerous weapons in the most dangerous hands. But even in this singular paragraph, paragraph 18 of this document, there are some things that are left unsaid and not given much reinforcement.

The missing tools -- transparency measures, a short access, improved treaty monitoring, verification -- surely these tools matter greatly in trying to prevent the most dangerous weapons from falling into the most dangerous hands. And we do have this citation, and Paula has talked about it as well, that the US approach to combat WMD represents a fundamental change from the past.

Now, I would argue that the tools that I have mentioned, military capabilities to deter, dissuade and defeat, diplomacy and the rest, they're not new; they're not fundamentally new. What is fundamentally new in my view is the missing tools and the lack of attention paid to these methods to improve our effectiveness in dealing with these serious threats.

Now, the fundamental change is clear when we look back at the treaties and the negotiations that Jim Goodby and Alexei have talked about, amazing breakthroughs in

the 1987 INF Treaty, various inspections, various kinds. These inspections expired June the 1st of 1991, no longer in effect. Alexei talked about START I, an extraordinary list of inspections, procedures, protocols, great detail, great access. And Alexei has called our attention that these verification provisions are set to expire in December of 2009. When they expire, all bilateral US, Soviet/Russian intrusive monitoring will expire with them. As Alexei has reminded us, we still target each other, we still have our nuclear forces on hair-trigger alert, but we trust each other so much that we don't need these provisions anymore, it would so seem.

I totally agree with Alexei's recommendation that we maintain and move forward with these provisions for the new world, the new and dangerous world that we live in. Tremendous effort, tremendous progress in moving us forward with intrusive access transparency measures, in multilateral fora. Jim Goodby talked about the breakthrough at Stockholm. Jim, we thank you for it and many others who worked with you to make this happen. Stockholm was improved upon, as a number of you know. There were subsequent follow-on negotiations in Vienna. I'm not going to go into the details of these inspection rites. They are very Eurocentric.

CFE, 1990: lots of inspections, lots of access. It's true, as Paula says, that access at any time gives you a snapshot in time. But the more snapshots you get and the more up close and personnel you get, the better you get, in figuring out what's going on. There are challenge inspections actually attached to CFE. They have been exercised. More than 4,000 of these inspections have been included to date. Again, very Eurocentric, a legacy of the Cold War.

We heard this morning from Mr. ElBaradei about how the IAEA has worked hard over the decades to get better at inspections, different variations of internal regulations, the additional protocol we have heard about.

Once again, the key to have a good understanding of what's going on in a country is to have people on the ground, working with other national means and methods. Open skies, cooperative aerial monitoring, very little appreciated. There've been over 200 of these flights so far, indefinite duration as with the other Eurocentric arrangements that were negotiated over time.

BWC. Big areas of monitoring weaknesses remain. Strengthening measures appear to be in limbo. Maybe we are making some progress on the agenda that the administration has pursued, but this is definitely a weak reed, nobody debates it. Chemical weapons convention. Spotty record. Lots of routine inspections, over 1,800 of them so far, including in countries that tend to be neuralgic about inspections, like India and Pakistan, [which] have accepted routinized inspections. Norms matter. We have a norm that calls for transparency and short access but, we do not have a norm with respect to challenge inspections. This is a big weakness for this regime.

Fissile Material Cutoff Treaty. Paula has told us that the US policy after two years of review has raised serious concerns about a realistic and effective verification

regime, apparently, our tracking techniques are satisfactory for nuclear fuel assurance, but they are unsatisfactory for Cutoff Treaty.

So that's my bottom-line in my ten-minute allotment? My net assessment is that the verification picture is an iffy one. We're sloughing off in the United States bilateral inspections; we're walking away from hard-won gains. Oddly, for an administration that is accused often of not thinking very highly of multilateral approaches, my sense and my net assessment is that the administration is off-loading bilateral inspections and what's left is multilateral inspections, multilateral access, a multilateral access that is Eurocentric. And as we all know in this room, the hardest problems we face are not typically in Europe.

We have a new development reflected in the US approach to nuclear cooperation with India where we're looking at country exceptions, which is a very poor substitute for norms--it's corrosive of norms. What we really need to do here is to build up norms and not exceptions to those norms.

The US emphasis on enforcement is very welcome, but it is a big question of how one gets enforcement, while sloughing off and hollowing out the monitoring provisions associated with treaty regimes.

So, many questions with respect to the future of verification. My sense is that Cold War arms control has morphed into cooperative threat reduction, and the new system that we are living in involves a mix of cooperative threat reduction, cooperative measures and treaties with mandated assured access, data exchanges, and all the like.

The question, one of the questions that we have to wrestle with is can we work this mix when the treaty part of the mix is undervalued and being hollowed out? Can cooperative threat reduction succeed when treaties are being hollowed out. The very provisions that we are applying on cooperative threat reduction, assured access, in site monitoring we are borrowing from the treaties we are now offloading and the hard-won gains that we are now sloughing off. Is this a sustainable approach? Can we set global standards by demanding exceptions for friendly countries?

This seems to me to be an approach that's fraught with difficulty, because sometimes a friendly country is also a problem country. Sometimes a friendly country becomes a problem country, sometimes a problem country becomes a friendly country. Sometimes my friend is somebody else's foe and somebody else's friend is my foe.

If we go down this path of country-based exceptions to international norms, we're going to weaken regimes across the board. Do we build upon or walk away from hard-won gains, the gains that Alexei and Jim Goodby have been talking about? Do we throw away the baby along with the bath water? Do we say no to inspections that crib the United States and 'yes' for inspections that crib others? Is this a sustainable approach? Do we offload bilateral and pickup multilateral, is that something that's doable and sustainable, is verification for others, but not or us?

So my bottom line is I agree with the Bush administration, we need a comprehensive approach, we need to use all available tools, and we're not using the verification, assured access, intrusive monitoring, cooperative measures piece of this nearly enough. We can't have a strong homeland defense without them. We can't have effective diplomacy without them. We can't have enforcement without them.

So, safety from the most dangerous weapons in the most dangerous hands requires global norms, global access. That is the challenge that we now face.

Thank you.

[END OF FORMAL PART OF PANEL.]