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DEEP REDUCTIONS: STABILITY AT LOW NUMBERS

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FRANKLIN MILLER: Ladies and gentlemen, if you'll take your seats we can get started. I'd like to welcome you to this session on “Deep Reductions: Stability at Low Numbers.” This session explores one of those truly interesting conundrums in the arms reduction area, and that is as we go lower, can we in fact maintain strategic stability?

Some arms reduction agreements, specifically START 1 and START 2, were specifically designed not to reduce nuclear weapons per se, but to create greater strategic stability. Other arms reductions agreements focus on reducing the numbers of the weapons and don’t pay a great deal of attention to stability.

So our panel today is designed to explore that, and I can’t think of three better people to do so. If you turn to pages 22 and 23 in your program, you'll see their full biographies. I’m not going to read that.

But on my extreme right is James Acton, who is an associate and a Stanton Nuclear Security fellow in the nuclear policy program at the Carnegie Endowment. James has written – coauthored two Adelphi papers on deep reductions, and has a third paper coming out. He’s been a colleague and friend for many years.

On my near right is Alexei Arbotov, again, a friend and colleague for many years. He's the chair of the nonproliferation program at the Carnegie-Moscow Center and head of the Center for International Security, the Institute of World Economy. He was a member of the Russian Duma from 1994 to 2003, and is still in politics as the deputy chairman of the Yabloko Party.

And on my left is Dr. Bin Li, a physicist from China, who is a professor in the Department of International Relations at the Institute of International Studies, and the director of the arms control program at Tsinghua University. He’s also written on this.

So we're going to have about 10- to 15-minute presentations from each of the speakers, and then we will turn to your questions, and we'll wrap up promptly at 5:20.

So, James Acton.

ACTON: Thank you very much, Frank. And if I can indulge in a piece of shameless advertising to start my presentation, copies of my Carnegie report, which explores practically a path to low numbers, are available outside, and copies of the new Adelphi paper, which kind of ask the question, which deterrents at low numbers will be stable and effective, can be purchased online from IISS.

I think the last few years have really seen a rebirth of the concept of strategic stability. I mean, it was only in 2002, during the hearings on the Moscow Treaty, that then-Secretary of State Colin Powell declared that the U.S. and Russia had a new strategic relationship, that, quote, there was “nothing to go to war about,” and that, in consequence, strategic stability was outdated.

By contrast, the Nuclear Posture Review, released a bit under eight years later, contains a full-throated endorsement of the concept of strategic stability. But what’s perhaps noticeable about the Nuclear Posture Review, and indeed what’s noticeable about much of the conversation about strategic stability, both in the United States and
Russia, is the reluctance of people that use the term to actually define it. And very often, the term “strategic stability” ends up meaning nothing more than international peace and harmony.

[00:04:06]

So let me start by trying to give a definition, a specific definition, of strategic stability. And I’m going to use just the classic definition that divides strategic stability into two concepts – arms race stability and crisis stability – and in particular I’m going to explore crisis stability to date.

So let me start by saying what crisis stability is not. OK, crisis stability – at the risk of kind of, you know, telling a roomful of people what they already know, crisis stability is not deterrence. Deterrence involves the conceptually simple calculus of comparing the costs of inaction to the costs of action. And if the costs of action outweigh – are higher than the costs of action, perhaps because my adversary will punish me severely if I take an action that he doesn’t like, then I ought to be deterred from undertaking that action. That’s deterrence.

Stability comes in if we’re worried that the other side might strike first if we don’t. If there is a risk that if I don’t go first, my adversary might do so, then inaction is not just neutral, but inaction could have a high cost to it. And, in fact, a crisis is said to be unstable if there are incentives to use nuclear weapons out of the fear that the other side is about to do so first.

The deliberate first use of nuclear weapons because you believe it’s in your security interests – you know, because it’s a way of solving the crisis, that’s not instability. Using nuclear weapons first out of the fear that the other side is about to do so is an example of – sorry, is crisis instability.

[00:06:09]

Now, I think before discussing crisis instability, it’s worth dwelling briefly on why this concept, developed in the Cold War, is still relevant. And there’s been – you know, one of – I think the main critique of crisis stability is this idea that the relations between states, especially 20 years after the end of the Cold War, depend on much more than just nuclear weapons.

So, focusing on the nuclear element of stability is really only looking at one element of a much broader picture, to which I agree absolutely and emphatically. And people who support the concept of strategic stability and believe it’s still a relevant metric for measuring force posture, don’t argue that nuclear weapons are the be-all and end-all in interstate relations.

Rather, what we argue is that states retain nuclear weapons, in part out of the fear that their relationships might deteriorate very quickly and very significantly, and they might face one another off in a serious crisis. If that should occur – and it’s surely less likely than 20 years after the end of the Cold War, but if it should occur, if relations deteriorate significantly and two countries are standing off in a deep crisis, it strikes me as being in everybody’s interest that the incentives to use nuclear weapons first, out of the fear that your adversary is about to do so, are as small as possible.

And, in particular, the key to crisis stability is force invulnerability. If you have invulnerable forces that cannot be destroyed by your adversary, then your adversary had less of an incentive to go first and, in consequence, you have less of an incentive to go first.

[00:07:59]
So, I mean, I start from the position that still regards crisis stability as being an important metric for assessing force posture. And the traditional concern – I mean, really articulated throughout much of the Cold War – is that reducing the number of nuclear weapons will undermine crisis stability, because if I have fewer nuclear weapons, then my opponent can potentially take out more of them in a first strike, leaving me with fewer, in absolute terms if not in relative terms. And, consequently, that could give my opponent an incentive to go first and therefore I have an incentive to go first, et cetera, et cetera.

I think there’s clearly something to this argument. All other things being equal, it is certainly true that a larger force is more of an invulnerable one. But in practice, all other things rarely are equal. And my central argument today is that numbers themselves, a big force, is actually a very inefficient way of building an invulnerable force. Larger numbers, by themselves, do increase invulnerability, but there are other factors that are more important.

OK, let me give you an extreme example of this, which is admittedly an extreme example, but it comes from the 1969 Sino-Soviet border crisis. And I’m indebted in particular to Mike Gerson, in the audience, for all of his research on this subject. But this was a time when the Chinese, rightly or wrongly, believed that there was a genuine possibility of a Soviet first strike, and in particular, that appeared to be at least a possibility because of the invulnerability of their forces – sorry, because of the vulnerability of Chinese forces.

They had not hardened delivery systems. They had no mobile delivery systems. Their systems were all extremely short range, so even if any survived a first strike, they couldn’t have hit targets of vital importance to the Soviet Union. And the Soviets at least believed they had, rightly or wrongly, extremely good intelligence on the disposition of the Chinese arsenal.

[00:10:18]

Now, a larger arsenal, per se, would have solved none of those problems for China. If you have – and I acknowledge this as an extreme example, but if you have a very large soft arsenal that can easily be taken out, you might as well have small sort of arsenal.

Rather, I would argue today that stability depends on a number of other factors that are significantly more important than numbers per se. The way that nuclear delivery systems are loaded, the number of warheads per missile, ballistic missile defense systems, conventional prompt global strike systems, non-prompt strike systems, all strike me right now as being far more important than numbers per se.

So, I – you know, some of the most extreme fears we had coming out of Russia in recent years I think are exaggerated about the threat that this combination of systems poses to the Russian arsenal. But I think these fears are genuine insofar as I think there is a genuine concern in Russia and a very deep concern in Russia that, over the long term, the evolution of U.S. capabilities could significantly undermine the survivability of their forces and hence generate instability in a crisis.

And I think we need to take this issue seriously today, irrespective of whether we want to go to low numbers. I think low numbers provide a strong additional incentive for wanting to take Russian concerns about force survivability seriously. But I view it only as being – I think this is worthwhile doing, even if we weren’t wanting to go to low numbers.

[00:12:05]
So, let me throw out two ideas about, you know, ways of, during the reductions process, using arms control to enhance strategic stability. Now, I think unquestionably the most important areas concern ballistic missile defense and conventional prompt global strike, and I’ve got ideas on that, but I thought it might be more interesting today to talk about two different areas that really haven’t received so much attention.

And the first one is a return to the traditional core goal of arms control for the United States, and that’s “de-MIRVing.” That is, trying to use arms control as a way of ensuring that ballistic missiles, particularly silo-based ballistic missiles, are only loaded with one warhead.

And this has been – I think the importance of this issue has been highlighted because in the last couple of months we’ve heard that the Russian government has now started to fund research and development into a new heavy-liquid fuel, SS-18 follow-on ICBM, which strikes me, from the perspective of strategic stability, as being an extremely bad idea.

[00:13:15] And I think that in a round of arms control where Russia is going to be asking a lot from the U.S., de-MIRVing is, you know, a key thing that the U.S. can ask from Russia. I mean, in particular, you know, you’re looking for a ban on new deployments of silo-based MIRV ICBMs.

If the U.S. wants to achieve that goal, then I think that has implications for U.S. domestic policy as well, in particular on the follow-on to the Minuteman III. The Minuteman III is going to last until about 2030 and the U.S. is now just starting to consider requirements for a successor.

And I think from the perspective of strategic stability, that really ought to be a single warhead ICBM, largely because, you know, if the U.S. builds a multiple warhead ICBM, you have no chance of convincing the Russians to agree to a ban on new deployments of silo-based ICBMs.

And I think there’s – you know, when the decision about the Minuteman III is taken, I think there’s – you know, there’s unquestionably going to be a debate, as there always is, about whether the lifetime of the Minuteman III can be extended beyond 2030 with yet another life extension project. And I think those of us in the arms control community ought to say, on this occasion, actually building a new single-warhead ICBM, is better from the perspective of arms control than another life extension project to the Minuteman III, if that’s possible.

[00:14:38] The second issue I want to highlight is non-prompt conventional strike, cruise missiles. I was – I had no idea before I started research into the project quite how much Russians believe that non-prompt capabilities pose a threat to their silos. And I don’t know – you know, I’m surprised by this concern, and I think this concern is probably significantly overblown, but I think it is a genuine concern on the part of Russia. And I think that non-prompt capabilities could be the joker in the pack when it comes to the next round of arms control.

If there’s an issue that we don’t see on the horizon at the moment, or many of us don’t see on the horizon but I think could become a very big issue in the next round of arms control, it’s non-prompt. I mean, we know BMD is going to be an issue, we know Conventional Prompt Global Strike is going to be an issue. I think non-prompt could surprise some people by becoming an issue.
Now, you know, the U.S. is never going to subject conventional cruise missiles to arms control, formal arms control, and neither should it. But let me give two practical suggestions of what potentially could be done.

Firstly, there seems to me a genuine technical disagreement between the U.S. and Russia about the threat that cruise missiles pose to silos. U.S. experts with a completely straight face, completely honestly say they believe they don’t pose a threat. Russian experts completely honestly, with a completely straight face, said they do pose a threat.

[00:16:06]

So, why don’t the two governments commission a quiet, behind-the-scenes joint threat assessment and actually do a joint analysis of the threat that silos pose to – cruise missiles pose to silos? And this wouldn’t be for distribution, this wouldn’t be public, but, you know, to the extent that this is about a genuine technical disagreement – and I just don’t know whether it is about a technical disagreement, but let’s find out whether it is. Let’s do a joint threat assessment.

And, secondly, maybe on a reciprocal basis, the U.S. and Russia could do joint data exchanges – again, private, behind-the-scenes data exchanges of, you know, the number of cruise missiles; in broad terms, where they’re located. You know, that seems to me the type of thing that is not beyond the bounds of possibility and might go some way to easing Russian concerns on this subject.

And on that point, let me close and hand it back to Frank.

MILLER: Thanks very much, James.

Alexei?

ARBATOV: Thank you.

[00:17:09]

In a sense, we are already in a state of deep nuclear disarmament. During the last 20 years, nuclear arsenals of then-Soviet Union and the United States have been reduced by more than 80 percent – I would say by 85 percent if you count deployed nuclear weapons. And in this process, the New START Treaty will bring them further down.

The paradox of nuclear weapons – and this is quite a banal observation, but I should still give it to you – is that large nuclear weapons make nuclear war unthinkable, even regardless precise calculations and models of strategic stability. It figures in expert discussions, but for the general public – public and politicians and political leaders, huge size of the arsenals makes nuclear war unthinkable.

As we go down to lower and lower numbers, there is a threat that nuclear war might one day become less unthinkable. And that is why the lower we go in our nuclear weapon numbers, the more important becomes strategic stability, which primarily means survivability of remaining much fewer numbers of forces.

At the same time, not only stability becomes more important requirement at lower numbers, but also adjacent military issues become much more important, which lie out of the domain of strategic offensive weapons, but at low numbers affect more and more strategic offensive weapons relationship.
One of them was mentioned by James, and this is conventional precision-guided long-range systems, also ballistic missile defenses, space systems, tactical nuclear weapons, et cetera. And the further down we go, the more difficult becomes to make each next step. However, failing to make next step does not leave us where we are, but rather brings us back in our relationship to much worse kind of military and strategic relationship.

From this point of view, let me say a few words about New START and its follow on. Following the example of James, I'll also bring to your attention this booklet that was just put on display, which in many words analyzes this issue, which I will try to analyze in a few words.

There are many things unique about New START. It's a very good treaty, probably the maximum that could be achieved under the circumstances. But there are many unique things about it. One is that for the first time in the history of strategic arms control, since 1972, the treaty affects projected American forces much more than projected Russian forces.

Moreover, for the first time since 1972, the problem for Russia is not how to cut down to the level of new treaty, but rather how to live up to the levels of new treaty, because of the nature and objective reduction in the numbers of Russian strategic forces due to withdrawal of all systems and introduction of very few new ones.

Russian forces will dive deep under the ceilings of the New START by the end of the decade and then gradually raise to its limits. And that produces some unexpected effect, in particular the ones that James mentioned, the idea to revive traditional strong elements of Russian strategic forces, let the fuel silo-based MIRV missile to come in place of SS-18.

Why? In order to build up more quickly to the ceilings of the New START. Secondly, to retain robust penetration capability against any unforeseen development in U.S. and NATO ballistic missile defense.

Another unique feature of the new treaty is that, unlike situations in the past, there are no definite plans for a follow on. Every time that we signed the treaty in the past, there were immediately plans for a follow-on treaty to go further down in numbers and to address issues that were not resolved in the current treaty.

That is not the situation now. Now there is great uncertainty and confusion, both in Moscow and in Washington as to whether we will have a follow on to New START and what that follow on might look like.

My first point is that we need to have it. That's absolutely important to have a follow on to New START in order to sustain strategic stability at lower levels. Signing a New START – a follow on to New START Treaty in the foreseeable future will remove the motives for deploying new liquid fuel silo-based heavy missile.

And for the first time in Russian history, there is now an open public debate on a major weapon program, the debate which goes in newspapers, press conferences, television, on whether Russia should proceed with the new heavy ICBM. So I would like to bring your attention to this as well.
Ballistic missile defense would be the decisive factor, and let me say a few words about ballistic missile defense. Discussions are now going on, on technical and operational issues of ballistic missile defense, but it skips over some very fundamental problems. And the main fundamental problem is the difference in missile threat assessment in Washington and in Moscow.

In Washington, the main missile threat is perceived emanating from Iran and North Korea. In Moscow, the main missile threat is perceived emanating from Washington. And this is an open point of new Russian military doctrine and new Russian arms program.

Russia is developing its defensive systems – ballistic missile defense, air defense, space defense – and it’s openly designed to protect Russia against U.S. and NATO missile threat, primarily the missile threat that was mentioned by James: cruise missiles, ballistic missiles, bosun (ph) light systems, potentially orbiting systems with precision-guided conventional weapons.

And this program of air/space defense is very high priority in Russian military doctrine, reform and arms program built to – (inaudible). Certainly Russia, discussing the joint defense or cooperative defense with the United States and NATO, is facing a serious choice. It would be – (inaudible) – for Russia to have two types of defenses, one together with the United States against rogue states and another one against the United States.

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So the choice will have to be made very soon. And making this choice is important for Russia, not only from financial and technical point of view. In Russia, only a small minority of strategic and political community perceives Iran and North Korea as a threat. Much broader support for joint ballistic missile defense comes from those who see it as a symbol of cooperative relationship – political, economic cooperative relations with the West.

Likewise, those who are against such relationship are against joint effort at ballistic missile defense, but the majority of strategic community perceives the joint effort at ballistic missile defense only as a guarantee and assurance that this defense will not undercut Russian strategic deterrence in the future.

This is a very important thing to keep in mind. Certainly China figures into the assessments as well. Russia doesn’t want to provoke China for missile build up by joining NATO and the United States and developing ballistic missile defense, which will be perceived by China as threatening Chinese nuclear deterrence.

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Addressing conventional strategic systems is very important because, as I mentioned, Russian defense program is designed to protect Russia against such systems. If this threat is alleviated through confidence-building measures through some limitations – and I do not think that they are impossible. It is possible to agree on certain limitations on both cruise missiles and other systems, factional orbital systems, bosun (ph) light systems and so on.

If this is taken care of, then Russia will be much more ready to change its program of air/space defense for the next 10 years and to make it adaptable or adjustable to joint effort. President Medvedev, a week ago, at the collegial among the ministers of defense, said exactly that. He said that we should consider very carefully how we’re moving this in our program. It’s very high-priority program, maybe top priority program, but we have to think whether we would do it unilaterally or jointly or with the United States and NATO.
So, the next step I think in follow on to New START is reducing to some level which will be more or less like the level that Russian strategic forces will reach by the end of the decade on their own. That’s around 1,000 warheads by the New START counting rules.

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It’s not so important what the level is; it’s important what the counting rules are. If the counting rules are the same, then this 1,000 level, we may consider it a deep nuclear disarmament, and this will remove the need for heavy ballistic missile defense, which will remove the main threat to joint ballistic missile defense endeavor.

I’ll repeat it: Lower level, addressing conventional strategic weapons, will remove the need for both Russian airspace defense against the United States and new heavy missile. And those would be – those would produce a synergistic effect of much greater cooperation.

In the long term, of course proceeding with joint ballistic missile defense may imply very broad cooperation in the foreseeable future. We should start with probably joint data exchange center and interfacing our early warning and monitoring capabilities. This does not remove mutual nuclear deterrence but it adds to stability, it adds to transparency and to something which Russia wants: an assurance that ballistic missile defense of NATO and the United States will not undercut its strategic deterrence.

But no less important is resumption of jointness of missile interceptors against real targets. We did some computer exercise in the beginning of the previous decade. It was stopped dead in the water by a crisis in Georgia. But we have to resume it because that – (inaudible) – responds much more to the primary Russian interests in joint ballistic missile defense. That’s making sure that it’s not designed or planned eventually to undercut Russian strategic deterrence.

Just one example. There is an argument whether the phase four adaptive ballistic missile defense plan will take capability to intercept ballistic missiles at boost phase or not. This is something which may be resolved and made transparent and persuasive through joint tests.

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Eventually, going along this path will bring us beyond mutual nuclear deterrence and going to a genuine common ballistic missile defense that will make us dependent on each other in defending our countries against ballistic missile and cruise missile and other threats, would change the nature of our strategic relationship from mutual assured destruction probably to mutual assured defense. Thank you.

MILLER: Thank you, Alexei.

Dr. Li?

LI: Thank you. Just now James explained the definition of strategic stability, so I do not have to repeat that part. So it will happily save some of my time. I want to say I will focus on crisis ability.

According to the classical arms control theory, the nuclear weapons states should keep at least a minimal size of nuclear arsenal to assure destructive retaliation. This is a very good theory because it provides very explicit policy recommendations, but if we look at this theory carefully, we will find that the theory is based on two very conservative assumptions – (inaudible) – by the calculations.
The first assumption is that in a crisis, the expected probability of two rivals about nuclear attack is nearly 100 percent. The other one, they would be very certain that the other side would launch nuclear attack in the crisis.

But the real theory is that countries in the world have some confidence in the nuclear taboo against the use of nuclear weapons. If countries believe that nuclear attacks are not quite likely, they would not need the capabilities for big nuclear retaliation.

In the last 10 or more years, I’ve talked with nuclear experts from many different countries. Most of them believe that their government would observe their nuclear taboo in a crisis. That is, their government would not use nuclear weapons. They also have some confidence that other governments would do the same.

The difference is that some experts like the policy of their governments to be based on the understanding about the taboo. Well, some others feel that it is too risky to do so. So this suggests to us that if we can promote the belief in nuclear taboo, we can therefore maintain crisis stability at the very low numbers of nuclear weapons.

The second assumption made in the classical arms control theory is that the punishment to the nuclear attackers comes only from nuclear retaliation, but the real situation is that the nuclear attackers may also be punished by some other ways but mostly from interdependence among countries in the world today.

If a country launched a nuclear attack against others, it automatically receives punishment, for example from some environmental effects. For example, nuclear fallout may come back to the country of the attack. The consumption of ozone by nuclear proteins would mean increase of – (inaudible) – in the attack, and in fact call it nuclear winter, with ozone would cause big problem for the attacker.

Beside of this environmental effect, nuclear attackers many also receive punishment due to political and economical interdependence. So, these have maintained crisis stability at very low numbers of nuclear weapons.

Here are my conclusions: that if we can reduce our worry about intentional nuclear attacks, we can therefore reduce the need for – (inaudible) – process. The nuclear taboo is very useful for this proposal and we should further promote it. Secondly, interdependence brings additional punishment to nuclear attackers besides nuclear retaliation, and this also reduces the need for big nuclear forces to maintain crisis stability.

Now I’m going to talk about China. The Chinese leaders fully understand and appreciate the nuclear taboo. This is why China feels comfortable with – (inaudible) – of nuclear – (inaudible) – and it commits – (inaudible) – as a (co-part ?) of its nuclear policy.

The reason is that first use is not an option at war in the real world because China appreciates the nuclear taboo. So I would like China, you know, to do a different thrust than other nuclear weapons states in nuclear disarmament.
In my recent article in Arms Control Today, I offered policy recommendations for the Chinese government in two lines in nuclear disarmament. The first line is reducing the number originally deployed nuclear weapons.

According to the same counting rules of START Treaty, China has zero nuclear weapons because its strategic delivery systems do not carry nuclear weapons. But what China needs to do is to say that, we do not have a nuclear warhead on our delivery systems, so in that way China could support the reductions by the U.S. and Russia in the line of START.

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The second line of nuclear disarmament is reducing the total numbers of nuclear warheads, including both in storage and deployment. China could encourage these kinds of reductions by diminishing its fissile material stockpile.

China could make a progressive commitment at different stages for – China could make a promise to give active support to the negotiation of FMCT, declare a moratorium on fissile material production for – (inaudible) – during the FMCT, while it is completed, declare the size of its nuclear fissile material stockpile and eventually join the reduction in total number of weapons.

I hope my government will take my suggestions I believe that help the security of my country and the rest of the world. Thank you.

MILLER: Thank you very much.

So you’ve heard from three speakers, and let me suggest to you – and I’ll try to be uncharacteristically neutral since I’m the chair – I think that you’ve heard the following sorts of broad questions:

In a crisis, are both sides’ systems survivable?

Are the survivable systems sufficient to hold at risk what a potential enemy leadership values? And here BMD plays a role.

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Third, the fact is that in a crisis, no one is secure unless all the parties are secure.

Fourth, are we wiser to leave force structure decisions unaddressed in future agreements – that is, along the lines of the Moscow Treaty or New START – or is it better to address them directly, as in START I or in START II? Obviously if you’re addressing them directly, it’s harder to achieve an outcome. It’s certainly slower.

And last, there are other resource implications, because if you come up with a treaty that says that each side is to have survivable forces, that assumes each side equally has the resources to spend on survivable forces, which is not exactly a real-world consideration.

And then you have the points that Mr. Li brought in, which is how do you strengthen the nuclear taboo and how do you work to ensure a more stable international system in the pre-crisis phase? I think there’s a lot to talk about.
With that, I am going to turn to your questions. Raise your hand. I will try and recognize you. We have roving microphones. When you're recognized, please state your name, your affiliation, and to whom the question is going to be addressed. And please, in the interests of everybody, make the question as brief as possible. So we've got one over here and then two and three over there.

Q: Howard Mandel. As I understand it, the strategic balance between the U.S. and Russia and the reason that Russia fears a U.S. missile attack and the U.S. does not fear a Russian missile attack is because of the asymmetry in the survival of submarine forces. The U.S. has survivable submarine forces at sea with hard target kill capability in the D-5 missiles.

And, as I understand it, the Russian submarine forces are mostly not even at sea and vulnerable to location by U.S. attack submarines and so forth, so that the main reason for instability in the U.S.-Soviet – U.S.-Russian balance is the submarine imbalance, which the U.S. could fix simply by deploying its fewer submarines or deploying them in the Antarctic Ocean out of range to give – you know, reduce the need to be ready to fire the missiles on the Cold War schedule, which I understand they’re still on.

MILLER: Is that a question or comment? Are you asking somebody to comment on that?

Q: Mr. Acton and Mr. Arbatov, I guess. Is that true? Is that imbalance correct?

[00:44:05]

ARBATOV: Well, yes, that’s not all but that certainly is the major asymmetry. I would say that another problem is that Russian ground mobile missiles certainly are something to make up for this asymmetry, but due to big mistakes in decision taken in the year 2000-2001, the rate of deployment of ground mobile missiles was very slow.

And if the decision is taken on the new heavy missile, it will be still worse. It will be still smaller because you have to – you will have to share funding for strategic forces between ground mobile missiles and new heavy silo-based ICBM. That’s one of the reasons why many people are so strongly against the new heavy ICBM.

Your idea about deployment in Antarctica I think is theoretically good but particularly will be of no use because we will never – Russia will never be able to verify whether U.S. submarines are in Antarctica or in Arctica.

I think a much better solution along the lines of you idea would be for the United States to drastically reduce its submarine patrol rate, which is easily verifiable because you see how many submarines are at base at any given time. And going from 60 percent deployment – routine deployment, say, to 30 or 20 percent deployment would greatly alleviate the threat and make it verifiable.

MILLER: James?

ACTON: Let me say very quickly, dispersed land mobile missiles are incredibly difficult to get. They’re a very survivable delivery system. The problem is they’re very unsurvivable when they’re not dispersed.

[00:46:03]
And there is a crisis stability dynamic here that if you disperse mobile missiles as a precautionary measure, you up the severity of a crisis, which is also true, incidentally, if the U.S. ever decided to flush the submarine force in a crisis. I mean, it’s true of both different basing modes.

You know, I think in an ideal world – which is not the traditional arms controllers’ response – I think in an ideal world the optimum solution will be for Russia to have its mobile missiles on dispersal more often rather than for the U.S. to have its SSBNs on dispersal less often.

But from a resource perspective, you know, keeping mobile missiles dispersed is very expensive, and I think Russia probably just can’t afford to do so, which means you’re then back to more traditional arms control measures in order to ensure force survivability, such as many of the things that Alexei and I have been discussing.

MILLER: Let me endorse what James said and suggest to you also that the U.S. submarine force deployment rate for SSBNs is dramatically lower than it was during the Cold War.

[00:47:02]

So we had two and three up there.

Q: Bill Keller, Center for International Trade and Security. My question is for Mr. Arbatov.

About 15 years ago I was in a seminar at MIT, and I asked John Deutsch – since we were even reducing weapons then; this is nuclear weapons – what was the optimal number that we should reduce to? And he said, well, 1,000. And we asked him, why 1,000? And he said, I can’t tell you that but that’s why you have officials like me. (Laughter.) And I said, OK.

Now, I’d like to ask you the same question. Why do you think 1,000 is the correct number?

ARBATOV: Well, the response to that is that it’s correct number for practical purposes. It’s not correct number from expert calculations but because the dynamic of Russian force reduction and deployment will bring Russia to around 1,000 in seven, eight years’ time with New START counting rules. You know, they’re counting (bombers ?) as one delivery system and one warhead.

[00:48:18]

It would be very wise to have an agreement to set a new ceiling at this level so that Russia doesn’t have to build up using, among other things, primarily a new heavy missile which may be destabilizing. That’s a practical purpose. It just means that we will have to stop at that number forever.

However, I think that going below 1,000 in a traditional linear way of reduction would be hardly possible. I would rather suggest to have a next START Treaty setting the ceiling at 1,000 and after that to go to a different way.

For example, de-alerting forces – going for deeper and deeper de-alerting forces and making larger and larger portion of forces non-deployed versus deployed, lengthening the time of reconstitution that eventually may bring Russia and the United States to very few, low hundreds, maybe even dozens of deployed alert forces, but leaving them sufficient reserve potential in case something unexpected happens, in case China embarks on a crash missile buildup, or some other country, and so on.
We have to take care of potential technological breakthroughs. In addition to what James said, I think that there is a solution to this problem of ground mobile missiles. You keep a certain portion of the same type of missiles in silos to take care of a bolt-out-of-the-blue attack because they will be capable of launch and warning, and they will provide color for deployed missiles in case of a crisis, to give them the time to deploy and disperse and come – and provide for a very, very survivable capability.

MILLER: Thank you.

Back there, second one – behind you.

Q: Bill Sutcliffe, Lawrence Livermore Lab.

It seems to me that we don’t spend a lot of time worrying about strategic stability or deterrence with respect to France and the U.K. And as Bin Li said, the deterrence becomes less important as we become more interdependent.

And I was wondering if there are some specific ways we can become more interdependent with respect to politics, economics, military and cultural. And could those be worked into an agreement as we negotiate these reductions? And that would save a lot of fear and of course the concomitant costs.

MILLER: I don’t think that question can be answered in a short burst, so talk to the people afterwards.

There’s a question down here.

Q: Wayne Jaquith. I’d like to ask Mr. Abatov and Mr. Li how various Russian and Chinese constituencies see the U.S. plans to spend tens of billions of dollars that it doesn’t have on refurbishing the U.S. nuclear weapons complex that will enable it to build some hundreds of new nuclear weapons. Do they understand the internal politics of this, or do they see it as a threat to further reductions?

LI: Before and after CTBT negotiations, I worked at the new Chinese nuclear weapon authority. At that time, China was very much worried that CTBT was a trick of the United States. The United States would do a lot without nuclear testing and China could do nothing.

And, fortunately, the two countries had a very good exchange. The scientists from China, from U.S. state talked to each other a lot about stewardship and some other things, and that convinced the Chinese nuclear scientists that the United States was not going to get rid of new nuclear weapons, new – (inaudible) – and we were very happy with that.

That – the Chinese – (inaudible) – my colleagues, they – my colleagues and me, you know, we provide – we supported – the nuclear scientists in the Chinese labs supported CTBT. We believed that CTBT would be good for us.

But after CTBT, the domestic politics in the United States became strained. Several things happened. One was that at different times the U.S. government proposed different ideas and then the defense industry proposed
different ideas to develop various new designs, develop – (inaudible) – changing warheads, and some others. I will say that is bad. That alerted the Chinese scientists maybe the U.S. intends to do something severely. We should worry – that is one thing.

[00:54:20]

The other thing is the Cox Report. Cox Report posed a big obstacle for the Chinese scientists and American scientists to talk to each other. That is very bad. And the reason is we do not have as much discussions as we had before. As long as we have a healthy exchange, I think we would all stand everything here. Thank you.

MILLER: Thank you.

Alexei?

ARBATOV: Well, I would say that the majority of Russian political leaders, strategic community, had a great sigh of relief after getting this news because that means that nuclear disarmament will not happen during President Obama’s lifetime, and we wish him many happy returns. (Laughter.)

[00:55:20]

Otherwise, Russians do not care about that. They are concerned about, first, ballistic missile defense capability of the United States. Second, conventional strategic precision guided systems, but not about nuclear complex, whatever.

MILLER: Thank you, Alexei.

A question down here.

Q: Stephen Schwartz with the James Martin Center for Nonproliferation Studies.

I’ve heard a lot about weapons – weapons systems, delivery systems, warheads. I haven’t heard a lot about actual force posture. So I’m wondering if all three panelists could address this.

[00:56:04]

The reason that the United States moved toward a posture of using nuclear weapons or thinking about using nuclear weapons or launching nuclear weapons out from under an attack was not so much that it was worried that its weapons would be destroyed, but rather that the people and the control systems that would authorize the use of those weapons would be destroyed. And this is a perennial problem going back to the 1950s. We’ve never been able to resolve it despite spending tens of billions of dollars on it.

So, I’m wondering if you could each address – and, James, you hinted at it a little bit in your comment about flushing the subs – how do we deal with that particular part of this problem, because, you know, regardless of how many – how few nuclear weapons we have, if the posture doesn’t change, the risk potentially doesn’t go down at all.

And with regard to China’s situation, China has somehow managed, despite facing two heavily armed nuclear adversaries, to avoid having the kind of posture that the United States and the Soviet Union and then Russia
developed, and still maintain to some extent today. Not only does it not have its nuclear warheads mated up with its delivery systems, but it doesn’t – you know, it doesn’t have those systems ready to go.

And somehow that doesn’t seem to create a fundamental problem in Chinese strategic thinking about either exacerbating a crisis if one is already underway, or potentially limiting the ability of China to respond if an attack were to commence.

So, I’m wondering if – I realize this is not a problem we can solve today, but I’d just like to hear a little bit about your thinking about that.

MILLER: OK, we’ll get some brief responses. James first.

ACTON: I think it’s a fascinating question, and let me tackle one tiny bit, which is at low numbers, you know, I think there’s two ways you could go for delivery systems. You could go for mobile delivery systems – I mean, be that land mobile or sea-based – or single warhead silo-based ICBMs.

And I think it’s an issue I explore a bit in the Adelphi paper. Look, which of those is more stabilizing? I mean, I don’t know, is the answer to that one, but let me tell you how I think the debate goes.

Mobile systems have the advantage of being more survivable – really, really hard to kill mobile systems. But the active dispersing them is potentially destabilizing. I mean, even if you are dispersing your forces in merely as a precaution, there is no guarantee, A, your adversary is going to interpret it that way.

So, from that perspective, hard to kill would be good for crisis stability, but flushing them is bad for crisis stability. Single warhead silo-based ICBMs are less survivable but don’t have this damaging effect of flushing the force, which exacerbates crisis stability.

Now, you know, I don’t know, at low numbers, what the optimum system is. My sense is you probably want the survivability of mobile systems, but it’s a really – I mean, for me that’s a question that needs much more debate and exploration and modeling and analysis.

And this question of optimum force posture at low numbers I think is a fascinating one, and I don’t have any answer to it.

MILLER: Thank you, James.

Alexei?

ARBATOV: You are right; the decapitating strike has been one of the primary incentives for launch and warning postures, both in the Soviet Union and the United States. However, another very important incentive was counter-force capability. With counter-force capability, if you can do away with the vast majority of the forces of the opponent, you do not care whether national command authorities survive or not. They will have very few weapons to respond with. Maybe they would not respond at all to the consequences.
Transcript Not Checked Against Delivery

But if the – even if both bolt-out-of-the-blue attack take out national command authorities, you can never be sure that eventually delayed retaliation will not be delivered, because most – in the Soviet Union and the United States, this negative control has been not 100-percent automatic. It’s relied a lot on procedures, and you could always assume that those who survive it, particularly the military, would be eventually able to launch their missiles in retaliation.

So, I think that counterforce capability still matters most in providing incentive for launch and warning postures, but of course in Russian case it’s much more justified because Russian ground-based forces, which are the targets for counterforce capability consist of a much larger portion of Russian strategic forces than those of the United States.

[01:01:03]

With respect to China, a few words. I think that Chinese having much smaller forces have always been much more practical in their operational plan than Russia and the United States, who could afford greater-than-expected threat calculations because they have so many forces. China has much modest force so it calculated that the war will be not out of the blue strike but it will be proceeded by an emergency, by conventional confrontation, which would provide China the time to alert their forces, match weapons to warheads, weapons to delivery systems.

[01:01:44]

And in that case, I think China, in contrast to its political declaration, had to rely on preemptive strike capability because it could never count on its forces providing the counter-force strike. But politically of course it was a very nice thing to take – (inaudible) – just like Soviet Union did in 1982.

Li?

LI: Thank you. Very short.

I think that China’s nuclear presumption is a little bit different from the other four nuclear-armed states. China does not worry that much about nuclear attack. What China worries most is nuclear coercion. So if you come to a nuclear coercion, China does not have to put its nuclear weapons on alert all the time.

[01:02:36]

For nuclear submarine, I do not know. For fixed-base nuclear weapons, mobile ICBMs, my understanding is that China would launch nuclear retaliation one week after China received nuclear attack. China trains these soldiers that were – that is not because China worries about nuclear attack. That is because China wants to demonstrate that China has capability.

MILLER: Thank you. Three excellent answers. And, as a teaching point, if by the survival of those people who would launch them you mean the ICBM launch crews, that’s not an issue. There were systems in place as early as the mid-1980s to have alternate launch capabilities.

If by that you mean the national command authority of the president, again, there were systems there which would easily allow a president of the United States to – or a survivor – to launch the force. But the United States has not fixated on a launched nuclear attack for multiple decades.
There’s a question over there, in the middle.

Q: David Wolfe, Oppenheimer Institute. I have a question primarily for Professor Li. Perhaps it can be answered with one word. I don’t know.

Assuming that one can – that Russia and the United States were able to reduce their arsenals to, let’s say, a thousand warheads or a thousand weapons, would that perhaps put some pressure on China to become an equal partner by increasing its arsenal and thereby perhaps also urging India to do the same?

LI: As I just said, that according to the counting rules of START Treaty, China has zero nuclear weapons. China – just zero. If the United States and Russia talk to each other about your reduction in total number, I would suggest China to get involved.

MILLER: There’s a hand in the back, up there.

Q: Christopher Jones, University of Washington. I want to thank Dr. Arbatov for his very clear explanation of the dimensions of Russian-American cooperation on ballistic missile defense. That cooperation presumably would be defending NATO members against an attack from Middle Eastern states.

So my question is, would NATO enlargement involving Ukraine or Georgia, put an end to any possibility of American-Russian cooperation on ballistic missile defense?

ARBATOV: Strategically, no; politically, yes.

MILLER: Get his question – back there, yes, sir.

Q: Mark Goodman, Department of State. A question for Mr. Li. You recommended that China declare a moratorium on fissile material production, yet I imagine you’re aware that China single-handedly prevented a call for a fissile material moratorium from being included in the NPT Review Conference final document.

I wondered if you had any insight into the basis for China’s position, the explanation, and advice on how to overcome concern – the underlying concern.

LI: My suggestion is that China could be a progressive commitment beginning with the support of FMCT negotiation if the United States and Russia begin their reduction in total number. So, I don’t think – you know, the United States and Russia, I believe they are reducing the total number of their nuclear weapons, but that’s not some binding rumor. If they begin – (inaudible) – about that, I would suggest China to move forward as much as possible.

I do not believe that a moratorium would hurt China’s security. China is reluctant in that direction. I think that’s because of some kind of international body. That is a little bit too complicated. I don’t want to spend too much time on that. But I’d like China to move in that direction.

MILLER: Thank you. There’s a question over there. Yes, sir.
Q: Hi. Matthew Harries from King’s College in London.

I've got a question for Dr. Li, and forgive me if I've misunderstood your argument. But in a situation where these crisis ability arguments would apply, isn’t that, by definition, one where the nuclear taboo has already been (rated ?) – that is to say, in a situation where – in any situation where the United States or the U.K., for that matter, was contemplating nuclear use, can you not assume a long lead time of deterioration in political relations and possibly the start of conventional conflict? And in that situation, isn’t nuclear use a great deal less unthinkable?

LI: This is the assumption of Chinese leaders. They do not believe that any country would launch a nuclear attack against China. But they may say so – the United States said that they will attack China with nuclear weapons in a Korean war, and the Soviet Union says something similar. But the belief of Chinese leaders was that the nuclear taboo would stop that. That is the assumption. That is the philosophy.

[01:09:25]

You know, I talk with many security experts. At the beginning they said no, no, no, that does not make much sense, but eventually most of them would say they think that a first use of nuclear weapons is incredible. No first use is much more credible. That is the most I can say.

MILLER: Thank you, Professor Li.

We have five more minutes. A question in the back. Yes, sir, all the way in the back.

Q: Mike Vance with the State Department. I guess I'm a little unclear on why China has nuclear weapons at all then. If China doesn’t think it’s going to be attacked, and if nuclear coercion is only credible if an attack is actually viewed to be possible, then why have nuclear weapons at all? And why would nuclear coercion be taken seriously if you don’t think that China would actually be attacked?

MILLER: I think that’s yours.

LI: OK. (Laughter.) Thank you. A very good question. Well, it’s not because, you know – it’s not whether or not we believe in nuclear coercion or not; it’s whether or not other countries would believe in nuclear coercion or not. We should know – we do not believe you would use nuclear weapon first, but other countries, they said, yes, we would. That is the problem. If China has nuclear weapons, then other countries would not say they would launch a nuclear weapon attack. That is the point.

[01:11:05]

Actually, I agree with you. You know, nuclear weapons are not so important. We should throw them away.

MILLER: The gentleman in the center, back. Yes, sir.

Q: Andrew O’Neil, Griffith Asia Institute. I had a question for James Acton. Just in terms of the response of allies here, to the extent – the deterrence dimension, to what extent do you think allies are a factor in being able to go below a thousand warheads, for example. I mean, the Japanese – in speaking with – some analysts in Japan have signaled that’s America’s psychological threshold. What are your thoughts on that?
ACTON: I think there’s a political dimension and a strategic dimension to that problem. Politically, I don’t think there’s any doubt whatsoever the allies concerned will be a break on the disarmament process. I mean, I think it is – I think it is fair to say that any change of U.S. nuclear posture, when it’s debated in Washington, its effect on extended deterrence is the most important part of the discussion.

So, politically I think it will happen. Strategically I think is the more interesting question, and I would argue that deep reductions would not affect allies’ security. And it comes down to a number of factors. I mean, partly it comes down to exactly the issue that Frank raised, which is, you know, do you have sufficient weapons to hold at risk what adversaries value the most?

Now, I think Frank and I would disagree over the answer to that question of low numbers –

MILLER: I’m not sure.

ACTON: – but there’s not – but there’s no issue that that, to me, is a central question.

I mean, I think the most strategically persuasive argument for why you need a large arsenal to extend deterrence, which is one that you find in the Japanese literature, is a concept of damaged limitation, that if the U.S. can, you know, preemptively destroy an adversary’s arsenal, U.S. threats become all the more credible.

My counter to that is if you look at the practicalities of destroying even the Chinese arsenal, once their mobile ballistic missiles are dispersed, I do not believe the U.S. could get – could do so. And so, you know, I think this damage limitation argument doesn’t work today because damage limitation is not effective enough right now to enhance the credibility of extended deterrence.

The Japanese don’t like it when I make that argument to them but, you know, if it’s not good enough today, then reducing them is not going to affect that anymore. That, I think, is kind of the – you know, it dates all the way back to Hans’s combat argument. But I think, for me, you know, it’s not – it doesn’t add anything today so it wouldn’t take anything away if you reduce numbers.

MILLER: Two points. One, James, the notion of offensive damage limitation is absolutely mindless, and I can’t think of any political leader who would accept that that is a rational political act.

Second, John Deutsch, reportedly speaking ex cathedra or not, there’s nothing magic about a multiple of 10. What’s magic is about the state which is extending deterrence, having confidence that it can, in fact, deter. It’s the confidence in the state over which the umbrella has been placed, that in fact the United States would act in its behalf if the crisis came.

And the third is it’s all about dialogue. Throwing numbers around is absolutely meaningless. Close consultations between allies is what brings an understanding of whether or not certain kinds of reductions and certain changes in force structure will provide an effective extended deterrence. Fighting over numbers, as I say, multiples of 10, is kind of a waste of oxygen.
Let’s get one last question. Where? That’s OK, I’ve got a light shining right in my eyes. Yes, sir.

Q: At what point does the United States and Russia feel uncomfortable with further reductions or dialogue without China being part of the equation?

And for Li Bin, at what point is China prepared to be part of that equation?

And for anyone, at what point do you bring India and Pakistan in, and in what format? How do the recognized nuclear weapons states deal with the non-recognized nuclear weapons states without adding to their credibility?

MILLER: OK, we’re going to Li Bin first. We’re going to finish up in reverse order. Li Bin.

LI: Thank you.

[01:15:59]

The Chinese foreign ministry does not know that China has zero nuclear weapons. So the Chinese foreign ministry is always reluctant to join multilateral nuclear disarmament. As long as they know that China has zero nuclear weapons, they would jump in; they would disarm – (inaudible).

So, my task is to convince them that China has zero nuclear weapons, and it is good to have zero nuclear weapons. If the others begin the process of reduction in total numbers, I would encourage China to put a limitation on fissile material.

MILLER: Thank you.

Alexei.

MR. ARBATOV: I think that going down to about 1,000 accountable warheads in the follow-on to START can be taken regardless of what China does, except of course if China embarks on a crash missile buildup.

[01:17:06]

Going lower than 1,000 would imply Chinese providing some kind of transparency and predictability to their forces. I do not believe in multilateral nuclear arms control. I think that from France, Britain and China, it would be enough to have transparency, confidence-building, notification, predictability for U.S. and Russia to go to 1,000 and then gradually they alert their forces.

India, Pakistan is original question. Israel is original question. North Korea is original question – has nothing to do with nuclear disarmament at large.

MILLER: Thank you.

James, having taken the unenviable first post, you get the last word, however brief.
ACTON: This is a very easy question. I can probably just explain in 30 seconds. I mean, it’s a great question and it’s very fundamental.

I mean, let me point out, first of all, that the U.S., as of the 30th of September, 2009, had 5,113 nuclear weapons, and Hans is right – Russia has about 4,600 in its active stockpile. So there is a very significant difference at the moment.

Secondly, you know, I think a lot depends, on the way down, as to how China – I hate the term “behaves” but it’s the only word that springs to mind right now. You know, China has very real reasons for wanting to be – (inaudible). And they have good reasons for wanting to be – (inaudible).

[01:18:32]

But to the extent the U.S. and China can sort out, you know, the issues they have and China becomes more transparent and helps persuade the rest of the world that it’s not going to sprint to parity, then as the U.S. and Russia go down, they’re going to be willing to go lower before any formal Chinese involvement.

You know, and similarly, you know, the same is going to be true with India and Pakistan. If India and Pakistan show significant restraint in their builds – and I don’t have much hopes for that right now – but if they do show significant restraint, then presumable the U.S. and Russia will be willing to go much lower than if they don’t show restraint.

So, I’m not sure there’s a single number. I think it’s going to depend on the way the process unfolds.

MILLER: Thank you, Jim.

Please join me in thanking our panelists for a splendid presentation. (Applause.)

(END)