MR. PETER HUESSY: I want to thank you all this morning for being here. This is, believe it or not, the 34th year in which these seminars have been hosted. Just a little bit of a reminder, the Mitchell Institute of AFA is our primary host, along with NDIA and ROA. Tomorrow we have our North Korea brief with Jim Przystup from the National War College, and Bruce Klingner from the Heritage Foundation, formerly CIA, North Korea desk. Then April 27th we're doing a seminar in Europe and BMD and NATO issues with Tom Karako from CSIS and Jim Acton from the Carnegie Endowment.

We were going to have Friday -- we were going to have a China brief, but that's been delayed until May 4th with Mr. Bosco, Mr. Chang, and Mr. Fisher. On May 5th Frank Rose will come from the State Department. On May 6th will be General Wilson from STRATCOM.

For those of you interested in our space series, we have three upcoming events here in May. Congressman Bridenstine will speak to us on the 19th of May on his new space initiatives. NASA Administrator Bolden will speak to us on the 23rd. And on the 24th, we're having the second of our Space Budget briefs here in the Club, downstairs in the Eisenhower Lounge, on the 24th.

On the 22nd of September is our 10th annual Triad event, which we will have here at the Club. Again, September 22nd. We'll start at 11 in the morning and go to about 3:30 in the afternoon. If you'd like to attend, please let me know.

I want to thank our embassy folks who are here today, as well as our serving military and our sponsors. I particularly want to say hello to my friend Ambassador Brooks; and Professor Curtis, who allows me the courtesy of coming to Annapolis and teaching our naval midshipmen and women about nuclear deterrence strategy, which I'll tell you is one of my favorite things to do, I must say.

Our two speakers today are Mark Schneider, formerly with OSD and also with the National Institute of Public Policy; and Steve Blank, formerly with the War College in Carlisle and now a fellow at the American Foreign Policy Council. Mark is going to tell you what the Russians have and what they're doing with what they have, and Steve is going to scare the hell out of you about what the Russians intend to do with the stuff.

If you read David Sanger of the New York Times, I'm glad you're here because Sanger wrote last week that all the Chinese, Russians and the U.S. are doing is one-upmanship. As I think both Steve and Mark have told me that by the end of the next decade, when the Russians complete everything in '21-'22, we will not have deployed a single new ICBM, new submarine, new cruise missile or bomber. But the Russians will have completed their deterrent modernization. So the Russians are probably one-upping themselves, if Sanger is correct.

So with that, would you give a warm welcome to Mr. Mark Schneider?

(Applause).

MR. MARK SCHNEIDER: Thank you very much. I'm not going to talk about the New York Times article, but I would point out if it's an arms race that's going on it's a very unusual arms race because we're reducing and the Russians are now increasing their nuclear capabilities.

There are two very dangerous elements of Russian policy relating to nuclear weapons. One is a Russian nuclear doctrine which entails the first use of nuclear weapons in local and regional conventional wars; and two, Russian modernization programs which are providing the full range of nuclear capabilities, from precision low-yield and low-collateral damage nuclear weapons to some of the most destructive weapons in human history. Both of these, I think, are very important in light of what's going on in Europe today -- the Russian aggression in the Ukraine, and the constant pressure we see on not only NATO member states bordering Russia, but on neutrals like Sweden and Finland.

Recently Igor Ivanov, who was the Secretary of the Russian National Security Council under Putin, and prior to that the Russian Foreign Minister under both Yeltsin and Putin, recently stated that, quote, "The risk of confrontation with the use of nuclear weapons in Europe is now higher than in the 1980s." This may have been a state-sanctioned, indirect nuclear threat. If he really believes this, that's of great concern.

Within the last week Bill Gertz has published a couple of articles on the Russian threat. He said that a senior official in the Obama administration told him that, quote, "The Russians are doubling their nuclear warhead output," end-quote. He added, They will be exceeding the New START Treaty levels because of MIRVing these new systems." Gertz also noted that the Russians had added 150 deployed nuclear warheads to their force during the past year.

This appears consistent with what the Russians are saying about their modernization program, and their declared numbers that have just been released by the State Department, the Russian provided data under the New START Treaty. We are now five years into the seven year reduction period of the New START Treaty, and the Russians have increased their number of deployed warheads, deployed missiles, and deployed and nondeployed delivery systems. The Russian numbers indicate they now have 1,735 deployed nuclear warheads, up from the 1,537 they had on the day that New START entered into force.

This is of concern, because we're now less than two years, about 20 months, from the required deadline for reducing to the New START levels, and they appear to have done nothing. You can't do this instantaneously. It takes time to reduce strategic nuclear forces.

So we're heading to a situation where the Russians may actually pull out of the New START Treaty in the middle of next year. They would have to do that by the middle of 2017 to avoid a violation of the New START Treaty. A couple of senior officials in the Russian Foreign Ministry have actually suggested that they're thinking

about doing that. My guess is they will attempt to pressure us very seriously on this issue to make concessions on other things, and we may actually see either a pull out from New START or they may use the rationale they've done with CFE, without any legal basis, suspending their obligations under the New START Treaty.

In any event, even if they don't pull out of the New START Treaty, the number of deployed Russian strategic nuclear warheads will be well above the notional 1,550 limit under the New START Treaty. When you count actual weapons as distinct from accountable weapons, they will likely be much higher. "Sputnik News" which is an official government news agency, several years ago said that they were going to have 2,100 actual warheads. The Federation of American Scientists, which is clearly an arms control enthusiast group, says that their number of deployed warheads, actual warheads, will increase to 2,500 by 2025. And that estimate is actually before the Russians announced a new program to procure 50 new versions of the T-160 bomber. When you factor that into the Federation of American Scientists' numbers, the number of actual warheads by about 2030 will be over 3,000.

If we have an arms race with Russia, it's an unusual one because they are increasing their forces while we are decreasing ours. Our strategic nuclear forces accountable under the New START Treaty, according to the latest numbers, have declined from 1,800 at entry into force, to 1,482, which is below the New START limit on deployed warheads of 1,550. The Department of State is trying to tell us that this is just routine fluctuations due to modernization of forces by Russia. That's simply not the case.

They moved above the New START level of 1,550 over two years ago and they stayed there. The trends have been clearly upwards since then. The next six month, I think, are critical. If there's not a downturn in the numbers they release later this year-- and they should be released by about October 1st by the State Department -- I think the odds are they're going to pull the plug on the New START Treaty.

Russia and the United States, as the Director of National Intelligence, National Intelligence Council, pointed out in late 2012, we're going in completely opposite directions with regard to nuclear weapons, with regard to the usability of nuclear weapons in conventional conflict, and with regard to modernization programs. Russia has announced officially about a dozen new strategic nuclear delivery vehicle programs, and all of these, with maybe one or two exceptions, will be operational by 2021. They have a new road-mobile and silo-based ICBM, the SS-27 Mod 1 single warhead missile. The reported yield in the Russian press is 800 kilotons.

So they obviously are not doing only less destructive nuclear weapons, they're doing both less destructive and more destructive nuclear weapons because it fits into their strategy of threatening the use of nuclear weapons in local war. The weapons that would be used initially by Russia would be precision low-yield and low-collateral damage weapons, and they would be backed up by the threat of massive nuclear weapons use. That explains a lot of the characteristics that we are seeing, at least in the Russian press, with regard to the new systems.

They have a program to deploy right now, and it's ongoing, the SS-27

Mod 2, which they call the RS-24/Yars. It's a highly MIRV'ed version of the SS-27. It carries at least, according to a deputy Russian defense minister, four nuclear warheads. The reported yield in the Russian press is generally 100 or 150 kilotons. Some of the reports say 300 kilotons, but that seems to be excessive in relation to the throw-weight of the system.

They are currently deploying a new ballistic missile submarine called the Boray-class, or the 955. It's carrying a new ballistic missile called the Bulova-30, which was declared under the old START Treaty a six warhead missile.

Two versions of legacy Cold War missiles have been improved. They're called the Sineva and Layner. They're based on the Soviet era SS-23 and are reported to be highly accurate. There are a number of Russian press reports saying that they carry warheads, in addition to the standard 100 kiloton high-yield warheads, warheads with yields as low as 50 tons of TNT.

Reports of precision low yield nuclear weapons research and development have been frequent in Russia since the late 1990s. What's new about the relatively new reports over the last few years is that we are seeing reports that they're actually being deployed. They have two nuclear-capable stealthy cruise missiles that have been deployed in the last several years. One of them is called the KH-102. Russian sources say it has a 5,000 kilometer range and is stealthy. The other one is the KH-101, which was supposed to be conventional, but in December Putin revealed it's nuclear-capable. Here we have a weapon that has just been used in Syria with the conventional version. The KH-101 could be used for precision low-yield nuclear attacks.

Russia is modernizing the existing bomber force with the new cruise missiles and a variety of upgrades of weapons capabilities on the Blackjack, or TU-160 bomber. The Russians in 2015 announced a program to build 50 more improved versions of the TU-160.

They are developing, with an intended deployment date between 2018 and 2020, a new heavy ICBM called the Sarmat. A deputy defense minister said it had 10 metric tons of throw-weight, which is higher than the Cold War SS-18 heavy ICBM. Russian press reports indicate it will carry 10 heavy or 15 medium nuclear warheads. That would make it the most destructive ICBM or missile of any time in the world.

They are now, or just about, to deploy the RS-26. They call it an ICBM and say on the first test it went to a minimum ICBM range of 5,600 kilometers. Every subsequent test has been announced to a range of 2,000 kilometers. It is clearly intended to be a theater weapon, and it is MIRV'ed.

They are developing something that they call a fifth generation ballistic and cruise missile submarine. Recently the state media has called it the Husky. It's supposed to be around by 2020.

They are developing a new stealthy heavy bomber. They call it the PAK-DA. It's reported in the Russian press to be similar in design to a B-2 bomber. It carries both nuclear cruise missiles and now reportedly hypersonic missiles.

By the way, there' a major program underway in Russia on hypersonic vehicles going back over 10 years. The SS-19 in 2004 was initially tested they characterized as a hypersonic vehicle. The government press has talked about a new hypersonic cruise missile which will be carried by Russian naval vessels.

We don't have any completely up to date official number from the U.S. government on the size of the Russian nuclear arsenal. In 2012 the Obama administration said it was between 4,000 and 6,500 nuclear weapons, which is lower than many Russian estimates. ITAR-TASS, for example, in 20009 said it was probably between 15,000 and 17,000 nuclear weapons, which implies a larger operational force than they're generally given credit for.

They have retained virtually every type of Cold War tactical nuclear weapon, while we've gone down to a single nuclear bomb, the B-61, in a number of variants which will be reduced to only a single version when the Mod 12 becomes operational. They clearly are in a position to deliver a variety of tactical nuclear attacks that we simply cannot match, because we do not have remotely comparable systems. I think that's particularly dangerous.

They are modernizing the tactical nuclear forces on an extensive level. The head of the Russian air force at the time in 2012 said that the new SU-34 long-range strike fighter is going to be part of the Russian strategic nuclear forces because it's going to carry a long-range cruise missile. Unless they declare it as a heavy bomber, that's a violation of New START. My guess is they'll probably put a KH-101 on it.

The Russian battlefield weapons have been considerably expanded. The Russians have now deployed nuclear-capable Iskander-Ms. An improved version of the Iskander-M, by the way, has recently been videotaped at the Russian air base in Syria. The Oka replacement, which we really don't know what that is because the Iskander was supposed to replace the Oka. The Oka is the Cold War short-range missile that was prohibited under the INF Treaty. In 2014, three tactical nuclear rockets were used in the major nuclear exercise they conducted in May. And of course, they have the intermediate-range ground launched cruise missile, which the Obama administration has said is a violation of the INF Treaty.

So we're seeing a very large and actually improving capability in tactical nuclear weapons, combined with large scale growth and qualitative increases in strategic nuclear weapons. What does this mean? Well, the Obama administration since the middle of 2015 has begun to warn about Russia military doctrine.

Deputy Secretary of Defense Work and Vice Chairman of the Joint Chiefs of Staff Admiral Winnefeld, stated before a Congressional committee in June of 2015, quote, "Russian military doctrine includes what some have called an 'escalate to deescalate' strategy, a strategy that purportedly seeks to de-escalate a conventional conflict through coercive threats, including limited nuclear use." And they characterized this as "playing with fire."

In March of 2016, Robert Sherer, Assistant Secretary of Defense for (For additional information on NDIA/AFA/ROA seminars contact Peter Huessy at phuessy @afa.org

Strategy, Plans and Capabilities, said that Russia, quote, "Adopted a pattern of reckless nuclear posturing and coercive threats. Russia remains in violation of the Intermediate-Range Nuclear Forces Treaty and remains unreceptive to the president's offer to negotiate further reductions in strategic nuclear weapons below the limits of the New START Treaty." He continued, "Russia's purposed doctrine of nuclear escalation to deescalate a conventional conflict amounts to a reckless gamble for which the odds are incalculable and the outcome could prove catastrophic."

The Secretary General of NATO in 2015-2016 made major statements concerning the danger of Russian nuclear doctrine. In February of 2016 he stated, "Russian rhetoric, posture and exercises of its nuclear forces are aimed at intimidating its neighbors." He added that this undermined the trust and stability in Europe.

We are, I think, increasingly seeing since 2014 nuclear attack threats of various types that are aimed at deterring a NATO response to Russian aggression against potentially NATO members. The 2015 report of the NATO secretary general that was released in January of this year says that in recent years the Russians have simulated nuclear weapons use against NATO members. In 2013 they simulated a nuclear strike against Sweden, of all countries.

I think it's useful that the Defense Department has recognized that we're dealing with a threat here that has got to be deterred, but the problem is we're not doing a lot to deter it. Senator McCain at a hearing this year started out by saying that, quote, "Certain critical nuclear modernization efforts, including an ICBM replacement and the B-61 nuclear bomb tail kit, have been further delayed in the 2017 budget." I think that's exactly the opposite of what you want to do right now, with the situation in Europe such as it is.

Of course, we've got to do more than just nuclear deterrence. We clearly have to beef up conventional capabilities in Europe. But the nuclear threat is a key part of Russian coercive policy towards its neighbors, and I think we're doing very little right now to counter that. Our modernization programs replace existing systems when they're 40 to 80 years of age, and that's simply risky in a lot of respects.

Thank you. Any questions.

MR. HUESSY: We'll take questions afterward.

(Applause).

MR. STEPHEN BLANK: Thank you, Mark. Thank you, Peter. Before I begin, I have an announcement to make.

A couple of years ago I was asked to organize a conference on the Russian military by the government. Fortunately, we are going to be able to do that in May here in town, just down the road. On May 9th and 10th we have a conference on the Russian military. It will take place all day on Monday, May 9th and the morning of May 10th.

On Monday, May 9th, it's going to be at the Rayburn Building, Room 2236 beginning at 8:30 a.m.; and Tuesday the 10th, at the Russell Senate Office Building in the Kennedy Caucus Room, I believe also at the same time. You're all invited to come. There's no registration or fee or anything like that.

There is a strict limit to seating, so after we reach the limits imposed by the House on the rooms, we can't let you in. So if you want to come, feel free. We would like to have you. Mark and I are going to be among the speakers. The only caveat is you may not be able to get a seat, because the demand might outstrip the supply. At least we hope it does.

I'm going to carry on from where Mark left off, and I'm going to give you the bad news. Regardless of who gets elected, and maybe nobody will --

(Laughter).

In 2021 the START Treaty expires. But as Mark pointed out the limits on weapons expire in 22018 when the targeted figure of 1550 is to be reached. But Russia has been increasing or, some would say, replacing weapons, all this time, while we have been cutting. I don't want to get into the merits or demerits of that treaty. But the fact of its expiration must concentrate the mind of the next administration, whoever that may be, on a major policy decision.

As Mark said, it's possible that the Russian government may decide to walk out of the treaty before it expires, or they may decide not to renew it. We just don't know yet, and I'm not going to speculate too much about what they may or may not do, at least in my presentation. But what seems to be pretty clear -- and those of you who have worked in government know this -- is that next year, regardless of who becomes president, there will be a major policy review regarding the START Treaty and what to do after it expires, whether to negotiate some new treaty, just carry on and let it lapse, or even maybe just walk out of it as perhaps the Russian might.

So in 2017-'18 there will be a major policy review. That review has to encompass several key issues: overall United States defense strategy, European security and particularly NATO's security strategy, which is not the same thing as ours. Although ours obviously clearly has a decisive influence on that, NATO as a whole has to decide its nuclear policies and strategies.

In Asia, we have to deal with the threat of China and of North Korea. We have to deal with overall proliferation concerns. It's very clear already that Iran is violating every UN resolution you can find, and it's probably violating the JCPOA. I think the only person in town who doesn't realize that is John Kerry. But proliferation is not going to go away just because we're changing presidents.

And, of course, the elephant in the room, is Russia nuclear doctrine, strategy and procurements. Now there's no point in speculating because we don't even know who the nominees are going to be, and none of them has even said a word about arms control as far as I can tell. But what we can do in this talk, and what I want to do, is try to assess the environment in which those decisions have to be confronted and made,

particularly focusing on the Russian case.

Mark has described to you in detail the nuclear modernization program. I can assure you that the conventional weapons modernization program is every bit as robust. What's more, if you read Russian military and political statements, they will tell you that high tech or precision guided munitions approach in lethality and in impact the capability of strategic nuclear weapons. Keep that in mind as we go along here.

All things being equal and barring some major transformation or act of God, Putin will still be in power in two years. Military modernization, although it is severely pressed by virtue of the general economic crisis in Russia, will continue. The priority of the nuclear modernization is unquestioned. And, as Mark said, they have about 2,000 -- that's our estimate, at least open source -- tactical nuclear weapons.

They are also conducting research on low-yield and fusion nuclear weapons at the same time. While we cannot gauge the progress of Russian space-based systems or space traversing systems, ASATs for example, they're likely to be beyond where they are today. And they are making significant investments in those areas as well.

Furthermore, every arms control treaty of the last generation has been violated, bar none. And as Mark said, they're coming up close to violating the START Treaty too by virtue of their modernization. The INF Treaty has been broken. The CFE has been broken. Every treaty relating to the borders and security of Ukraine has been broken, with no penalty except sanctions: The Helsinki Final Act, the Budapest Agreement, the Tashkent Treaty of 1992 among CIS states guaranteeing their borders, the Russo-Ukrainian treaties of 1997 and 2010, more recently the Minsk II Agreement, and so on.

In other words, I'm not saying this just to say that the Russians are not nice guys. We have a real problem, and any administration will have a real problem, because we are dealing with a "partner" who cannot be counted on to make credible commitments. We hear a lot of talk in this town -- and not only in this town but across the pond, so to speak -- about the necessity for dialogue with Russia. Any sane person understands that it makes no sense just simply to pretend that Russia doesn't exist and to allow situations to develop that could lead to tragic outcomes. Also, it makes no sense to engage in gratuitous insults and provocations of the Russian government. But on the other hand, if there is to be a true dialogue rather than what diplomats call an exchange of views, what are we to talk about when we are dealing with a partner we cannot count on to make a credible commitment and for whom treaties, to use the old Imperial German phrase, are just a scrap of paper?

Furthermore, between today and 2018, there is unlikely to be any change in the official threat assessment or in the mentality of the ruling faction in Russia because the incitement of the population to believe that the U.S. and NATO are major enemies and constantly at the door, and that Russia is a besieged fortress, are indispensable props of the domestic legitimacy of the regime. Russian security policy today not only begins from what I and other philosophers before me have called the presupposition of conflict, it begins from the point of view that everything is geared to

keeping the regime in power. And since Putin cannot and will not give his population bread -- just yesterday Medvedev said we're not making any structural reforms -- he has to give them circuses.

And circuses are the foreign adventures. It may sound glorious and cheap to do barrel roles over U.S. ships in the Baltic or to intimidate Sweden, but as you all know, this can get out of hand really quickly because Putin is no more immune to miscalculation than any other human being is. And what's more, his sources of information are clearly blinkered.

We have a real problem in that Russian threat assessments are tailored to suit a preconceived outcome rather than based on evidence. The higher up you go, the chain, the more politicized those assessments and requirements become. That was true under the Soviets, and I can give you examples later on of how that worked then and probably how it works now.

So we have a regime that cannot be counted on to keep its word, that is prone to foreign adventurism, and is structurally inclined to worst case scenarios and intelligence miscalculations. How does that affect the arms control environment? Well, the current administration, Mr. Obama, clearly wants to resume negotiations if he can to include tactical nuclear weapons. NATO also wants this, but it's not going to happen.

Russia has already stipulated over the last several years what its preconditions are for entering a new round of negotiations. A, we're not going to discuss tactical nuclear weapons unless you are willing to discuss high tech precision strike conventional weapons, and missile defenses in Europe, even though missile defenses can in no way interdict Russian nuclear weapons. That's contrary to the laws of physics, and secondly there's just not enough of them to interdict Russian nuclear weapons, and third, they can build nuclear weapons a lot faster than we can build missile defenses, even if we started straining every leash to do so.

As I mentioned before, the Russian government -- and you can dismiss this view or you can think that it has merit -- believes that at the upper end high precision conventional strike weapons have a strategic capability tantamount to that of nuclear weapons. They regard that, therefore, as a strategic capability that must be factored into any equation of strategic stability and arms control, as part of a negotiation. They insist, therefore, on discussing those and our missile defense. Obviously they take their point of view from the opening point that Western hostility is to be taken for granted.

Third, not only must any new arms control negotiation include the United States, it must include the UK, France and China. And China has made it clear it will not participate. Now why the Russians are saying this is interesting. There has been a long tradition where they had at least started out by saying that they want to include British and French nuclear weapons in any negotiation, and the Brits and the French have refused to do this. But as the numbers have come down, there may be more pressure on them to do this.

The Chinese are an interesting case. We believe that the Chinese have a few hundred nuclear warheads. That's the official statement. Alexei Arbatov, perhaps

one of Russia's best analysts in the field, says they have 750. And if you talk to Phil Karber, who believes that they have built all these tunnels, there are 3,000, and there's no doubt that Chinese nuclear modernization is continuing apace. The Russians probably are concerned about this, but they will never say so publicly, but they want China in that room.

What his means is that even before any negotiations start there are vast asymmetries in agendas, and that does not even take into account whether or not the next administration will decide to launch a process of nuclear modernization. As all of you know and can see from what's happening on the Hill, as well as in the administration, the pressure to do that is now mounting. Given the evidence we have – and everything Mark told you is open source, it's available to anybody who cares to look into it – given the evidence we have, we know Russia is doing this. Therefore, the pressure is building, whether it's a Democrat or a Republican in the White House next year, to rebuild and extend our nuclear infrastructure and capabilities.

When you take that plus these other differences into account, you see just how difficult it is going to be even to approach a negotiation, assuming Moscow wants to negotiate a new treaty, and that cannot be taken for granted. The only thing that I can see right now, given what we know today, and without trying to predict things that we can't know, is that for both sides the consequence of the other side being unleashed to do as it pleases, may frighten them both into negotiations. The Russians have a healthy respect for our capability once it's unleashed, and obviously theirs is quite potent as well.

One of the advantages -- as Ambassador Brooks knows because he has done this -- of arms control is that it gives each side some leverage and knowledge of what the other side is doing, by virtue of verification and mandatory reports that are required in a negotiation and treaty process. Without a treaty process both sides become even more opaque to each other. That can frighten both sides, and quite understandably, into saying we prefer to have the negotiation process and the treaty, rather than just being free. On the other hand, and we have to take that option seriously, they may decide that the gain in opacity – or the risk of greater opacity – does not outweigh the gain of complete freedom to do as you please and continue modernization.

There are other problems as well. Russia is building up its precision strike conventional capability, which is obviously going to be a factor in strategic stability from their calculations. By all accounts, from what you read from the Pentagon and from think tanks around town, our technological lead is eroding. In the next 10 to 15 years there will be many competitors to the U.S., not just Russia and China, but perhaps regional ones, maybe North Korea, perhaps Iran, perhaps others, to some degree able to field advanced conventional munitions that have strategic implications, at least at the regional/theater level, if not at the intercontinental level. Therefore, it may well be the point that the Russians are correct in thinking that those capabilities do have a strategic element to them, it may not. But this is certainly going to be a major factor for discussion over the next decade.

If the next president decides that not only must there be a rise in defense spending to develop robust conventional deterrence in Europe, which Mark and I both

agree about as being the immediate necessity to deter a Russian conventional strike in Europe, the Russians may well fear that the next president is also going to launch a major nuclear modernization that will essentially negate what they have achieved so far. Given past violations, a third point is going to be the question of verification. Verification is critical to build trust and mutual confidence. But if one side violates the treaty, how much mutual trust and confidence can there be.

Now the Russians, of course, accuse us of violating the treaty in response, but their evidence is utterly flimsy, whereas ours is solidly grounded. But they have paid no price. The administration has done nothing to make the violation of the INF Treaty, or for that matter the CFE, costly to Russia. And as long as that happens, I think it's safe to say the Russians are going to go ahead and continue to modernize and violate arms control treaties, until they have to pay a cost.

Another issue to consider in the context of any arms control agreement is what should be the agreed number of reductions? That's the ultimate purpose, to go from 1,550 to some other supposedly lower number. In the unclassified arena I have never seen any analysis that really tells you how many nuclear weapons the United States needs to safeguard its vital interests and that of its allies that is expressed in terms other than like 1,500 or 500, because that's an easy way to count. But we really don't know.

And the next administration, whoever that may be, certainly does not know today what that number is from a point of zero to infinity. When they do their review they're going to have to come up with a number that they think suffices to meet the challenges and threats out there and to defend our interests. The same is going to be true for the Russians, especially if there's a negotiation.

But if there's going to be cuts to some agreed number of nuclear warheads, should they be unilateral cuts on both sides? Should they be parallel unilateral disarmament, as we saw for example on the Soviet and Russian-Chinese border in the '90s where both sides substantially disarmed on their own? The Russian disarmament and the Chinese disarmament at that time did not take about of what each other was doing, but they both disarmed to a significant degree. Or, should they be reciprocal? It's a major strategic issue.

For the United States, do we want to tie Russia down to some number and agreed verification regime while Putin is in power? Or, do we want to wait Putin out in the belief that the declining capability of Russia will weigh in and that the country will not be able to compete after a certain point and we have the capability and necessity to modernize while this is going on? It's a major question as well for the next administration.

Therefore, the future for bilateral – not even to mention multilateral -- arms control at both the nuclear and the conventional levels, for both NATO and the U.S., is clouded; not just by the fact that we're electing a new president, but by a whole series of unforeseeable security trends, many of which are quite negative. There are problems that we right now are not dealing with, as Mark has suggested. NATO and the United States immediately, I would argue, need a conventional buildup to deter Russia.

That buildup is not just in terms of weapons, it's also in terms of intelligence and early warning capability.

Just to give you one point, I was in Germany last year. General Hodges told me and told the audience that when the Russians do their snap inspections we're totally blind. They catch us totally by surprise. And given the experience in world history, not just Russian history, of invasions that grow out of exercises, blindness is not a condition you want to be in under those circumstances.

Furthermore, what capabilities are going to be needed in the Asia-Pacific region to deter the Chinese buildup, and the obviously provocative Chinese behavior vis-à-vis Japan and Southeast Asia? Second, new forms of war have already arrived: cyber, drones, space. There's a possibility of biophysical weapons.

Chemical weapons have been used again, and I may add with impunity. Syria paid no price. We supposedly took out all these weapons in 2013-'14, but obviously we didn't because chemical warfare is still going on there.

Can these new weapons take out our nuclear command and control, or C3I for nuclear capabilities? And if they can, what does that mean and how do we respond, and what capabilities do we need to prevent or deter or recover from such an attack? None of those three things are the same.

Finally, how are we going to defend our allies in Europe, Asia and maybe the Middle East against these and other kinds of threats? Any comprehensive review that includes a review of nuclear policy must grapple with these fundamental issues. That is clear.

What's more, it's also clear that the new administration, whoever it is, is going to have to deal with them. It's also clear that the bad guys, if you want to use that term, think they have an opportunity, think that we're in decline, that we're confused, inept, irresolute, Europe more-so, and are trying to move forward.

And fourth, in the middle of this presidential campaign, not one candidate has talked about any of the things that Mark and I have spoken to you about today. Thank you.

(Applause).

MR. HUESSY: Be so good as to identify yourself and ask questions of our speakers. If you want to hold them over a little bit, fine. Those of you who have to leave, I understand.

Ambassador Brooks?

MR. LINTON BROOKS: I think I agreed with almost everything you said. But why now, given the limited intellectual capability that we have in this country to deal with these kinds of issues, are you even talking about arms control? First New START doesn't expire in 2018, it expires in 2021. 2018 is when we're supposed to

reach the levels.

If Mark's analysis is right, and the Russians walk, then there's no arms control. If Mark's analysis is wrong and the Russians (reach the level ?), then there's no arms control. There's no arms control in the next term of the next president.

When we get to 2021 we'll both sort of – would we rather have nothing? We'll screw around and write a lot of papers, and then we'll extend New START. People who didn't like New START the first time won't like it either.

But expending intellectual capital thinking about arms control in the next five years is a diversion of a scarce resource. Since I've never thought of you as an arms control cheerleader, I'm wondering why are you stressing that so much?

MR. BLANK: Well, I'm not stressing that so much, and you're right I've never been a great cheerleader for the process. I read too much Colin Gray in my time. But I look at the nuclear modernization that Mark talked about. I look at the reports coming out in the press and from think tanks that you also see about the pressure on the administration and presumably the pressure that's going to be generated for the next administration, to rebuild our nuclear infrastructure. I also take into account the entirety, as I understand it, of Russian behavior, and of the threat in Europe and what our allies are clamoring for. And I think this administration will be forced to deal with those issues.

MR. BROOKS: That's right, and that's what the message is. Every time you give the illusion that there is an arms control solution to the current Russian Federation – first of all you discredit arms control because there's a time for it and that time isn't now; and secondly, the problems you get are real – and they're actually worse – because you sort of gloss over the fact that everybody in NATO likes being in NATO, except for the part about Article V because there's reasons that Poland and the overwhelming majority of the big states in NATO are not going to go fight if Estonia gets attacked. Those problems will consume all the smart people and then some.

So I am arguing for just recognizing arms control may come back. I think it comes back about mid-'20s. But it's not an issue for the next administration. It's certainly not a near-term issue.

MR. BLANK: Well, the Obama administration, to read what Rose Gottemoeller and others have said in the administration, they seem to think it still is an issue. They would like very much to pursue it.

MR. BROOKS: They would, but first of all, as Mark pointed out and you pointed out, until we solve the INF issue –

MR. HUESSY: It ain't going forward.

MR. BROOKS: -- there is no arms control. I mean, it is impossible to think of a useful treaty that would have a prayer of ratification as long as the INF issue is not somehow solved. There are a lot of ways you can solve it, we could range on how. This administration knows that. Yes, they would like to have a Russian negotiation, but now,

and neither does the next administration.

MR. BLANK: But if the INF is not solved, and I don't think it will be anytime soon, so not during the rest of Obama's term, that is part of a larger problem, I would argue, which gets to what Mark has talked about and what I've written about as well, the conventional and nuclear buildups that must be addressed. And they must be addressed in terms of an overall strategy, and that has been absolutely lacking.

MR. BROOKS: I agree with that, and my problem is that for the last two administrations overall strategy tends to get wrapped up in what kind of arms control – in the best of times arms control is an element of the strategy. Lately, it's a substitute for it. I would like to see us get back to the big issue you have. Some of what you said, I think, there are answers for. Some there are not, but that's what the members of the administration need to wrestle with.

MR. BLANK: Well, my take of what's going on in this administration and what people have asked me to write about or speak about, and what they're willing actually to throw money at me for, is to actually talk about arms control. So, you know, the government is a big animal and we're probably each seeing only part of it, but there are elements of it that really do take this issue seriously. I think they're wrong and we've just explained why, but I don't think this issue goes away.

MR. SCHNEIDER: Can I add one thing to that?

MR. HUESSY: Go ahead, Mark.

MR. SCHNEIDER: There hasn't been any arms control negotiation with Russia since 2010 other than minor implementation negotiations on New START. There is no indication in any of the statements or reports that the State Department has sent to the Congress that they're even dealing with the big potential problems in the New START Treaty, namely rail-mobile ICBMs. The launcher definition doesn't match the definition in New START and you'd have to renegotiate that. The U.S. resolution of ratification says it's got to be a treaty amendment, and that has essentially never happened in terms of negotiating an amendment that went into force on any of the strategic treaties, so that's big a problem

The Status, the nuclear-armed high speed ICBM ranged nuclear drone, that's not subject to the START Treaty. There is a provision, of course, a carry-over from the original START Treaty, about new kinds of strategic defensive arms. There's not the slightest indication that there has been any discussion of something like that.

So we're not even dealing with major problems relating to New START. The probability of an arms control negotiation anytime soon I would put at about one percent, maybe. It's just not going to happen.

MR. BROOKS: Then why are we wasting time focusing on that instead of focusing on – you guys talk about we're going to revitalize modernization. What does that mean? What can be done in the next 20 years, not the next 20 months, that is not now (what we're doing?)? You can't build submarines faster than we're building them.

You can't build ICBMs faster than we're building them.

MR. SCHNEIDER: We could do cruise missiles.

MR. BROOKS: That's right, cruise missiles and bombers. So if that's our argument, then let's argue that. Right now, there is not an intellectually coherent argument for LRSO.

MR. BLANK: We're going to discuss that at our conference.

MR. HUESSY: If I can interject, I think what the ambassador has laid out is that we have tended to look at the nuclear component with Russia as an arms control issue, as opposed to its much, much more than that. Arms control is a sub-set. I think both Mark and Steve would absolutely agree with that. What you're saying, Mr. Ambassador is there's a dearth of good thinking on this subject, which is what this seminar series is designed to redress. And that just tells me that we have to schedule you later in the year.

(Laughter).

MR. BROOKS: (I'm here now?).

(Laughter).

MR. BLANK: Also, as I said, we're going to discuss this. The last panel at the conference that I mentioned is, okay, you've heard all this, what do we do?

MR. : A comment and a question. The comment is that arms control at its best is a tool of strategy, not the other way around. Arms control has also been in the past a tool of alliance management. Arms control negotiations, whether or not they reach an agreement, have been and could be again useful in keeping together this alliance, which is critical to U.S. security and which has never been an easy thing to manage.

The question is this. How do you reconcile your comment that the Russians are paranoid about the U.S. and NATO, take a worst-case view of everything we do, filter their intelligence so that what reaches the senior people is what the senior people want to hear, with your statement that the Russians believe that we are decadent, divided, irresolute and incapable of getting our act together?

MR. HUESSY: They can hold both views simultaneously.

MR. BLANK: Well first of all, I think it's Keats who said that the test of a first-rate mind is the ability to hold two contradictory ideas together at the same time. But again, one of the key points in Russian studies, and those of you who have negotiated with the Russians know this, to get anywhere you have to understand the way they think and often think the way they do. This is a Russian cultural artifact.

Your question makes absolute eminent sense among Americans, because Americans do not think in that kind of fashion. If somebody is a threat, we think he's a

threat and he's acting in a threatening way and strong and we have to find a way to deal with that threat: deter, overwhelm, whatever. To the Russian ideologically infused worldview – and remember who is running this country, it's KGB guys who, to use Talleyrand's phrase, have learned nothing and forgotten nothing. This mentality is perfectly in keeping with their worldview.

I saw Ambassador Brooks shaking his head yes, because of his experience with them. Again, this is a Russian way of thinking. It's not an American way of thinking. But if you're going to deal seriously with Russian strategic or political issues, you have to understand the way they think, and that's how they think.

MR. SCHNEIDER: Inconsistent positions are almost commonplace in Russia today. I'll give you a classic example of that: missile defense. If you do enough research you can document that just about every major official in Russia at one time or another has said that they can easily penetrate our missile defenses. Yet they attack this as a lethal threat to the Russian deterrent all the time.

They ran a missile defense conference in Moscow in 2012. They briefed about their concerns. They wildly exaggerated the Standard Missile capability, and came to the conclusion that we could almost intercept one of their ICBMs if it directly flies over the missile base. So what about the other 20 different trajectories that don't fly over the missile base?

They don't have a rational basis for a lot of what they're saying. It's ideological in a weird sense – there's no formal ideology, but we do have a Kremlin ideologist. It is quasi-ideological in nature, but it's not derived from any series of, pamphlets like communist manifesto-type publications, but it does exist. Legacy Soviet attitudes towards the West exist in Moscow and are very strong.

MR. BLANK: Let me give you an example. This is a Soviet example, but it's telling. Some of you in the audience may have known the late Vitaly Shlykov. He was a former GRU agent, then colonel, in the GRU at one point in charge of the department for the General Staff to figure out American military industrial capabilities in wartime.

The anecdote he tells took place during, I believe, the Carter administration or maybe the early days of the Reagan administration. He was tasked with finding out how many tanks we could produce in the event of a war in Europe, in a year. Vitaly had been to the United States. He spoke perfect English. He did everything he could to massage the data, because he knew whom he was working for.

He comes into General Akhromeyev and he says, our finding is that if there's a war in Europe in the first year the Americans can produce 29,000 tanks, which as all of you know, if you remember the late '70s and '80s, complete fantasy. Akhromeyev takes one look at this paper and goes, 54,000.

(Laughter).

No rational basis, but this is, you know – that has not changed, unfortunately. Yes, there is no more, "What Is to Be Done." There's no communist party. But that

mentality, especially from the KGB, survives and runs the country.

MR. SCHNEIDER: I'll give you a classic example of this and it's only a few years old. A senior Russian general declared we were going to produce 80,000 cruise missiles, including 2,000 nuclear-armed cruise missiles. You can't even come up with any contrived analysis that would get you to 10 percent of that.

MR. HUNTER HUESTUS: Hunter Huestus with the Air Force. This is a little tactical, but it's a follow on to a point Linton made. I think one of the things I heard you say, Mark, was it's one thing to say nuclear weapons only deter nuclear weapons, but I think what I heard you say is that nuclear weapons only deter the same type of nuclear weapons. So I want to give you a chance to expand upon your comment, which is about the INF violations and about the tactical nuclear weapons. I thought I heard you say that since we didn't have the same type of weapon, that puts us at risk. I think that's an important question of, what do we need going forward? I don't support that, and I want to give you a chance —

MR. SCHNEIDER: The basic issue here is the credibility of your threat. Being able to retaliate in-kind, in my view, is more credible, than a massive escalation, particularly when they come from a U.S. leader.

MR. HUESTUS: By in-kind do you mean by type of delivery?

MR. SCHNEIDER: The same type of attack, roughly the same sort of weapon. I think that type of limited response is more credible than saying I'm going to drop a megaton on Moscow in response to they dropped 50 tons at a U.S. or some NATO base somewhere. That, in my view, is not credible. Massive escalation is subject to a lot of self-deterrence in the West.

MR. HUESTUS: That's a straw-man. You think if they have artillery we should have artillery? If they have –

MR. SCHNEIDER: No, I'm not saying that. I'm saying that you need a minimal capability here of being able to match the battlefield use of nuclear weapons, because you can't do that with strategic nuclear missiles; and we need to be able to threaten naval use of nuclear weapons against various types of ships/submarines; and some type of survivable low-yield options to give some credibility to this. That, in my view, is the most credible type of deterrent. I don't think because you can do massive damage, per se, you can deter a limited attack.

I believe the threat of retaliation in kind is more credible. You need a few types of weapons that we don't have now, that we had in large numbers during the Cold War, to get the maximum deterrent value. Can I guarantee it's going to work? No, nobody can. Nobody can guarantee that any kind of deterrent is going to work.

But I think the more flexibility you have in the deterrent, the higher the probability it will work. You need, I think, a few types of weapons that we currently do not have to eliminate the only option being a massive escalation in the level of attack. I don't think that's a particularly credible type of deterrent.

MR. HUESSY: With that, what an extraordinary conversation we've had. We will have this transcribed for you both and have you edit it. Thank you, Mr. Ambassador for your contribution. Thank you all. Thank you all and we'll see you tomorrow for those of you who would like to hear about North Korea.

(Applause).