042418 Air Force Association, Reserve Officers Association, and National Defense Industrial Association Capitol Hill Seminar with Mark Schneider, Senior Analyst at the National Institute for Public Policy; and Steve Blank, Senior Fellow at the American Foreign Policy Council, on "The Nuclear and Missile Defense Dimension" (For additional information on AFA/NDIA/ROA seminars contact Peter Huessy at phuessy@afa.org).

MR. PETER HUESSY: Good morning, everybody. On behalf of the Mitchell Institute for Aerospace Studies and the Air Force Association, I want to thank you for being here today at the fourth of our seminars on nuclear deterrence, missile defense, proliferation and arms control. The reason we do the Russia brief and the China brief this week is like the administration brings up the head of the CIA or the DNI and they talk about a threat assessment. There aren't two better people on Russia than Mark Schneider and Steve Blank to do this.

Tomorrow we have a China brief and that is with Gordon Chang and Rick Fisher. Rick, like Mark, will talk about the Chinese, what Les Aspen used to call "the beans," what are they building. Gordon, like Steve, is going to talk about, what are they going to do with them, and in particular, why should we worry about it? Why should we think about it?

Then on the 27<sup>th</sup>, this Friday, Susan Koch, a new member of this speaker series, who is at the National Defense University, and Frank Rose who is newly appointed over at the Brookings Institution as head of their arms control group, will both speak about how arms control should serve deterrence and not the other way around. On the first of May, General Weinstein is going to be coming over to talk about the bombers and the ICBMS, the GBSD.

We also, at the Heritage Foundation on the 22<sup>nd</sup> of May, are having a panel on Reagan's nuclear policy legacy and the implications for today and directions for the NPR. Keith Payne is going to be our speaker, along with Sven Kraemer. Then we have a panel made up of Frank Miller, myself and Ty McCoy. Ty, as you know, was acting secretary of the Air Force as well as served eight years in the Air Force during the Reagan administration.

I also wanted to welcome our friends from Japan and Denmark, who are here. I would like to bring your attention to all our transcripts from General Chilton and Admiral Benedict, Tom Karako and Michaela Dodge are done and they will be posted on our web site. If you don't find them, just email me and I'd be happy to get them to you.

In particular, one of our fellows at the Mitchell Institute has interviewed General Hyten, and that interview is on the Department of Defense web site. I'd particularly being your attention to what I wrote yesterday in The Hill about the seven nuclear deadly sins. One of them is that the Russian proposal to use nuclear weapons in a conventional conflict is the result of the Trump administration's modernization of our nuclear deterrent, the modernization of our missile defense, or rhetoric, or pick one of the three that is convenient, when in fact as General Hyten points out, it was officially announced by the Russians in April 2000. For those of you who don't know your history, that's the Clinton administration. It was actually, as Mark will point out, promulgated and passed under Yeltsin in 1999 and then formally endorsed by Mr. Putin.

Mark Schneider is with the National Institute for Public Policy, a long-time official in the Office of the Secretary of Defense, the top person in this country that deals with Russian strategic and tactical nuclear issues and nuclear weapons. Steve Blank, who will follow, used to be with the Army War College and then the American Foreign Policy Council. As I said, there are not two more informed or more expert people on Russia and their nuclear policy and nuclear deterrent. Would you give a warm welcome to our good friend, Mark Schneider?

## (Applause).

MR. MARK SCHNEIDER: Good morning. I'm going to be speaking today about the broad subject of Russian nuclear weapons policy. The focus will be more on their programs. Steve will go more into what it means and their doctrine. I think it's fair to say that there is a fundamental difference between U.S. policy on nuclear weapons and Russian policy. The difference goes back literally decades.

We say that nuclear deterrence is our highest priority. The Russians say the same thing, but they really mean it, and that's where their money goes. Since the end of the Cold War the Russian government has officially announced about 25 strategic nuclear modernization programs, and there are several others that are reported in the Russian press, including the state media, but have not been announced.

The current Russian Defense Minister, General of the Army, Sergey Shoigu, stated in January of 2017, and I quote, "Russia will continue a massive program of nuclear rearmament deploying modernized ICBMs on land and sea, and modernizing the bomber force." It's doing this because it sees nuclear weapons as the central element of its status as a great power. Absent nuclear weapons it really doesn't have a great deal of anything.

Putin's recent claim that 79 percent of the Russian triad has been modernized, I think is an exaggeration, almost irrespective of how you define modernization. In all probability what he's counting is not only real modernization programs but anything that has gone through an overhaul in a serious way has been, quote, "modernized." Even so, in terms of really new systems or really improved systems, we're talking about two-thirds or more of the Russian triad has actually been modernized. They'll reach 100 percent. The official date is 2027.

Another thing you've really got to take into account is there's really no end to their modernization program. It's one system after another. As they develop and deploy a new system they go right back and start a follow-on, either an improved version or a new system.

We now have, I think, much more information, confirmed information, about what the Russians are doing than we've had in the last two decades. The combination of the June 2017 DIA report on Russia and the Nuclear Posture Review have confirmed a significant portion of what the Russians have been saying that they're actually doing.

The 2018 Nuclear Posture Review states, quote, "While Russia initially followed America's lead and made similarly sharp reductions in its strategic nuclear forces, it retained large numbers of non-strategic nuclear weapons. Today Russia is modernizing these weapons as well as its other strategic systems. Even more troubling has been Russia's adoption of a military strategy and capabilities that rely on nuclear escalation for their success. These developments, coupled with Russia's seizure of the Crimea and nuclear threats against our allies mark Moscow's decided return to great power competition." I would add to this they exercise these capabilities routinely.

The NPR report continued, "In addition to modernizing legacy Soviet nuclear systems, Russia is developing and deploying new nuclear warheads and launchers. These efforts include multiple upgrades for every leg of the Russian nuclear triad of strategic bombers, sea-based missiles and land-based missiles. Russia is also developing at least two new intercontinental range systems, a hypersonic glide vehicle, and a new intercontinental nuclear-nuclear-armed, nuclear-powered undersea autonomous torpedo." In March of 2018 Putin delivered his annual state of the nation address to the Russian Duma, the most militant speech we've ever heard from him, no question about that. The themes were familiar, but they were stated in the most extreme form we've ever heard from Putin.

He started out by bemoaning the loss of the Soviet Union and staking a Russian claim on all of the former Soviet states. He alternated between portraying Russia as a victim and vicious attacks on U.S. missile defenses, and a combination of nuclear threats. Again, normal Russian nuclear threats but taken to an extreme. This includes nuclear super weapons, which was the focus of the speech, and nuclear targeting against NATO.

He bragged specifically about five new Russian nuclear systems. This is approximately 20 percent of their announced programs, by the way, so rather than being a Potemkin village, as some on the left have stated, these are real programs. There's no question about that, and they're only a small part of what Russia is doing.

In the speech he delivered a virtual ultimatum, declaring that, quote, "Russia still has the greatest nuclear potential in the world, but nobody listened to us, listen now." He basically was asking the West, as Pavel Felgengauer stated, to admit a strategic surrender to Russia, and to basically eliminate sanctions and accept what it's doing in Europe and Syria. The intended target of the speech clearly was the West. That has been consistent in both the official Russian media and in the non-state media.

The new super weapons, the Sarmat heavy ICBM started the list. It is the most destructive ICBM ever conceived. According to the Russian state media it carries either 10 800 kiloton warheads and 15 or 16 350 kiloton warheads, and almost certainly has low yield options associated with it. It will be their main counterforce weapon. They say it can attack the United States over the South Pole, which to me suggest that there's a version of this missile that is actually a fractional orbital bombardment system because that's the most sensible way to do that sort of thing.

He announced a new nuclear powered cruise missile, which in my view is utterly insane. You have an assured nuclear reactor meltdown radiation release on every successful test, and if you have an unsuccessful test it could really get bad. As a matter of fact, the Norwegians have linked one of the two radiation detection incidents all over Europe to one of the tests of this system.

The nuclear powered, nuclear armed torpedo, I would characterize more accurately as a drone submarine rather than a torpedo. It reportedly, according to the Russian press, carries a 100 megaton warhead and it may be seeded with cobalt, which is a "doomsday" quote-unquote weapon that was conceived during the Cold War but nobody ever actually developed something like that. I think it's also insane.

There's no way to use the thing consistent with -- with the damage from it -- you can't use it consistent with international law. And you've got similar meltdown problems. How you recover an unshielded nuclear reactor? I have no idea. They probably just plan on dumping it in the ocean.

He also announced what he called a hypersonic missile, which is apparently an air-launched version of the Iskander ballistic missile and the Avangard system, which previously has been characterized as Project 4202. It's a hypersonic boost-glide vehicle.

As I said, these are real programs. They are not so much designed against missile defense as they are for war fighting and for evading early warning systems. Some of them have capabilities, better capabilities, against missile defenses, but they hardly need them. As a matter of fact, the ordinary Russian nuclear cruise missile, or even a conventional cruise missile, is fully adequate to destroy Aegis Ashore, because Aegis Ashore doesn't have any air defense capability, because it's not designed against Russia, where it probably can intercept an Iskander.

So we're dealing with a situation where Putin is using nuclear threats, and he does so fairly routinely. He's made five nuclear threats involving nuclear targeting. That's pretty commonplace in Russia. Threats of a pre-emptive nuclear strike also are voiced by the senior leadership.

In terms of the overall Russian strategic nuclear modernization program, it's much bigger than the five systems, and a lot of it has already been deployed. There are four ballistic missile submarine programs. One, the Boray, is operational. The Boray A will be operational this year. The Boray B and the Husky are under development. They

will progressively have quieter capabilities.

There are at least four or five new or improved SLBMs. The Bulava 30 is operational. The improved Siniva and the improved Riner (ph), which are adoptions of a legacy Soviet SLBM, are also operational. They announced the development of an improved Bulava 30 and they have also announced the development of a new liquidfueled SLBM for the Husky.

There are at least four new ICBM programs that we know about. You've got the SS-27 Mod 1 single warhead missile, the SS-27 Mod 2 or Yar, which is a MIRV'ed version of the thing, heavily MIRV'ed, and the RSF (ph). All these are now deployed. We don't know much about the RSF. They've announced it has been deployed, but they didn't tell us anything about its actual capabilities.

In addition, we have two systems that are temporarily, at least, on hold. They are the RS-26 and the rail mobile program, pending a decision in 2027. 2027 is the actual disclosure date when they achieve 100 percent modernization of legacy forces.

We've got also four new and improved bombers. Two of them are operational, the improved B-160M1, the TU-95 MS, and they're developing another two, which is the TU-160 M2 and the FAC-DA (ph) stealth bomber. They have at least two, and probably three, announced nuclear cruise missile programs, the ultra-long-range KH-101, which is nuclear capable according to the Russian Defense Ministry, KH-102, which is nuclear only, and they've got something called the KH-32 which is being described in the Russian press as a mock-4 missile with a 1,000 kilometer range. It's being tested off the Pathfire (ph), which would be an arms control violation if it is nuclear capable with that sort of range.

The Russians had announced as far back as 2010 that they plan to increase the number of deployed strategic nuclear warheads. In December of 2017 Bill Gertz reported that the Pentagon believes they are going to go to 8,000 nuclear warheads by 2026, deployed warheads, and that includes both large strategic and thousands of new low yield and very low yield warheads. He links that, of course, to their use of nuclear weapons in limiting conventional war.

The INF Treaty, we've got violations. There are actually two separate missiles that are described in unclassified U.S. government publications as having prohibited ranges under the INF Treaty. This includes the SC-8 or 9M729 and another missile which is actually the Caliber, which is 3M-14. There are also two other missiles reported -- at least two, perhaps three -- reported in the Russian media, including the state media, with ranges that violate the INF Treaty. These are the Bastion system and two versions of the R-500.

So we have a very, very extensive strategic program. We also have very extensive tactical nuclear programs. How many tactical nuclear weapons they have, there's much less certainty on, but certainly in the thousands. According to Phil Karber, who is president of the Potomac Foundation, they have 5,000 and half of them are new low yield weapons. I can't tell you his source for this, but it's a guy in Russia with a very good track record and was actually the source for the number of tactical nuclear weapons that appeared in the U.S. Strategic Commission report in 2009.

So we have a very extensive program. I don't have time to deal with this, but they have an extensive program underway, what they call aerospace defense, which is a combination of strategic ballistic missile defense, air defense, hypersonic missile defense and ASAT defense. Tass reports that they're going to replace the entire S-400 system with the S-500, which is multi-role and has a very strong anti-access capability. According to the Russian Defense Ministry and most of the senior generals dealing with air and missile defense, has the ability to intercept ICBMs and SLBMs.

As I noted previously, they exercise strategic nuclear forces all the time. They exercise the tactical theater nuclear forces in the large theater exercises. Reportedly, every one of them since 1999 that was conducted on a large scale involved Russian nuclear first use.

Russian nuclear doctrine -- and I think I'm running out of time so I'll just do this very quickly -- has a very low nuclear weapons use threshold, much lower than the official declaratory policy. They classified their doctrine in 2009 that was formally announced several times by the Russian Defense Ministry, so the business of using nuclear weapons in a situation that threatens the existence of Russia is simply not true. It's much lower than that. General Palevsky (ph), who developed that particular version of their nuclear doctrine, stated the plans for a pre-emptive nuclear strike during the closed part of their doctrinal literature.

So we have a situation where they make nuclear threats. Interestingly enough, a study published last month by the Harvard Belfer Center noted that, quote, "Military Force, the General Staff journal, has published at least 18 articles since 2007 calling on pre-emptive strikes against the United States." I would defy anybody here to find a single article in any Western military journal, or any serious journal of any type, that advocated pre-emptive strikes, much less pre-emptive nuclear strikes against Russia.

So basically we have a situation where Putin is preparing for a war. He doesn't want to fight a war, he wants to be appeased and he's certainly going to try to achieve his objectives without going to war. But there is a real risk he can miscalculate, and if he miscalculates he could blow up the planet.

Thank you.

(Applause).

MR. STEVE BLANK: And that was the good news.

(Laughter).

First of all, I'd like to thank Peter for inviting me back to speak to you. I guess Peter likes what I have to say, although I generally scare the hell out of audiences. I want to say a couple of things by way of introduction.

First of all, as you just heard, making sense of what the Russians are doing in military affairs in general, and nuclear weapons in particular, is an extremely complicated and exacting business. We don't have a lot of people in town who are good at it. Mark is the best. I hope you don't mind that I said that in your presence.

It's important to separate the wheat from the chaff. We can get things wrong, we all make mistakes, but it is imperative that we understand this. The fact that you're interested in this issue is of importance because it tells me that there are people who really want to get to the bottom of this and understand what this means.

Unfortunately, we are publishing papers today -- there's a book that I'm editing that is going to be out later this year. Mark has a chapter in it as well. I have other works coming out. Routledge is publishing a hand book on the Russian military which I would recommend to you all. My lecture is going to come from that Rutledge chapter.

Mark told you what they're building. I'm going to try to tell you why. You look at the scope of this, and this is a country whose GDP is a fraction of ours and which nobody is trying to attack, and you ask yourself, why so many nuclear weapons? What do they need them for? What do they hope to gain?

I'm asking this not in terms of American thinking, but in terms of Russian thinking because it's imperative that you understand what they're doing from their framework, not from ours, which is an error that is everywhere. Furthermore, as Mark suggested, and as Dimitry Adamsky and other people have written, the nuclear component is an inseparable part of the Russian operational art that cannot be analyzed as a stand-alone issue because it abets Russian conventional threats and aggression to the deterrence of adversary's counter action against that aggression. And Adamsky has gone on to write that Russia's strategy is one of cross-domain coercion. It's not just nuclear coercion.

We know this for a fact. Our election two years ago -- and potentially later this year -- is evidence of that, as are all the European elections that have taken place in this period as well, potentially the elections in Mexico later this year and so on. So we're facing cross-domain coercion, multi-domain coercion.

A lot of American writers have used the term hybrid war. It has become a state of the art term. I don't like it. Again, it's an attempt to foist American thinking on Russian thinking.

The Russians, when they say the term hybrid war, it's what you're doing, not what we're doing. They call it war of a new type. But bearing that in mind, let me quote you what an American major who I think had very unique insights into Russian thinking - - his name is Amos Fox -- wrote about this.

"The presence of nuclear weapons is perhaps the first critical component for modern hybrid warfare. You can't do the hybrid warfare unless you have nukes. Nuclear weapons provide insurance against a massive ground response to an incremental limited war." So if Moscow tries to fight what it believes is a limited war, let's say in Europe, it needs nukes. We don't know how many, but it needs nukes in order to prevent NATO or anybody else from resisting.

The offensive nation that possesses nuclear weapons knows that the adversary or its allies will not likely commit large ground forces to a conflict for fear of the aggressor employing those weapons against ground or naval forces. This dynamic emboldens the aggressor nation. In the case of Russia, its possession of nuclear weapons emboldens leaders to take offensive action because they know that even the threat of nuclear employment forces potential adversaries to (a standstill ?).

This idea is in Russian doctrine, that nuclear weapons deter conventional war. Ukraine is an example of that, as was Georgia. Why did they go into Georgia and Ukraine with such confidence? They knew NATO would not do anything. Estonia, Latvia and Lithuania is another story. That's one reason why they have not been attacked.

So what is the purpose for Russia? Yes, Russia covets the nuclear status because that enables them to claim equality with the United States, which is what it really wants across the globe, as well as a seat in the United Nations. Second, because to be blunt, it's a mafia state and because it's a mafia culture of intimidation and it likes to intimidate people into being their friend. Be my friend or else I'll blow you to kingdom come.

Or, if you don't play ball with me bad things will happen. Those of us who grew up in cities where the mafia flourished, know this syndrome all too well. You can see it in those cities and the popular literature about mafia clans and so forth, but it also applies to Russia.

Furthermore, as Mark pointed out, they are building nuclear weapons because they see nuclear war fighting as very likely if not inevitable. Adamsky's remarks are instructive here. Also General Richard Cherak (ph) who was the deputy SACEUR, has written a really good novel about what a Russian attack on the Baltics might look like.

He pointed out elsewhere that nuclear options are hardwired -- that's his term -into conventional ones. Nuclear forces not only exercise regularly, they exercise regularly with conventional forces. We just saw this in March. Now they may, quote, "do it separately" because they want to pretend that they're staying within the boundaries of treaties, but the fact of the matter is the nuclear and conventional options are part of the same cake and baked into it at the same time. So Moscow is trying to deter both nuclear and conventional attacks, and use the nuclear weapon to intimidate its adversaries. In other words, I would say that the strategy goes beyond the term "escalate to de-escalate." Again, I find this to be an American formulation that does not quite capture what the Russians are thinking here.

It is true, I believe, that in wartime -- if we ever get to that scenario -- that if the Russians see they are losing, and this is a government that cannot afford to lose a major war, especially on the borders, that it will either threaten or actually deploy a nuclear weapon, possibly a tactical nuke, somewhere in order to force an end to that allied escalation or victory, and return to either the status quo ante or try to obtain the status quo based on Russia's conquest of some unspecified territory. But given the idea that Russian strategy is one of cross-domain coercion, nuclear weapons are there to control the entire escalation process from the start of a crisis to the very end of a crisis. In other words, the goal is not escalate to de-escalate, the goal is escalation dominance.

You may remember Herman Kahn's ladders, or other theorists, writing about escalation. The Russians, operating from a position of conventional inferiority vis-à-vis NATO and the United States, want to be able to control the escalation ladder by means of nuclear threats and the use of surrogates for conventional weapons, and information warfare, as they understand it, not as we do, but as they do, which comprises everything you've seen in the last two years, if not before, as part of that strategy. That strategy means, in the plainest way I can say it, that Russia is at war with us.

Furthermore, those nuclear weapons that Mark talked about, some of them are being built now. But the order to build them goes back 10, 12, 15 years, as does the doctrinal requirement. One of the reasons for the fact that so much is now taking place is they simply didn't have capabilities 12 or 15 years ago. As a matter of fact, the Russian government accepted the idea, as of 2005, that it is at war with the United States and the West.

I have a quote in the paper, and it's a long one so I'm not going to spend time on it. Sergei Ivanov, then the Minister of Defense, tells the Academy of the General Staff on January 18, 2005 that we are in a war with the West. It's not a shooting war, and no one is going to attack us by means of kinetic combat, but there are people and forces out there who want to destroy the Russian state.

This comes after the Chechens had seized a school in a village named Beslan. Putin, after the rescue attempt went awry, gets up and blames other governments for trying to take Russian territory; and after they failed to capture Ukraine in 2004 by foisting Yanukovich upon the Ukrainian people and trying to kill Yushenko. The result was the Orange Revolution in Ukraine. Yushenko survived, he's elected president, and Russia loses. And, of course, they blame us, because as the Russian proverb says, if you don't like the reflection don't blame the mirror, and they can't not blame the mirror.

Russia is never wrong, take it from me. I've been doing this for a long time. Russia is never wrong, it's always us. Somebody else is always responsible. The first question is, whom do we accuse?

The point here is that Russia is at war with us and these systems were ordered then. The reform of the state administration, the reform of the economy, and then the subsequent reform of the military, are all a part of this process to bring us to where we are today. And nobody should be under any illusions that Russia cannot sustain this buildup.

You listened to what Mark had to say. You wonder, where are they going to get the money? After all, this is a government, like any other government, at the same time is responsible for all kinds of domestic issues, other military operations and forces. Where is the money? How do they sustain this?

As a matter of fact, in 2015-2016 and even part of last year, they had to cut defense spending. That doesn't mean that the military is going out of business, as you saw. Nuclear weapons remain the key procurement item even though their doctrine now talks about non-nuclear deterrence, which makes you ask, what's going on?

However, even though they announced last year that defense spending would be cut from 2017 in 2018, the fact of the matter is that defense spending has gone up this year. There's a very simple reason why, and you can see it every day when you go for gas. The price of gas has gone up. The price of oil has gone up.

Their budget was for \$40 a barrel of oil, so Russian income from energy, which is a huge amount of the budget, was based on the presupposition that the price would be \$40, and they budgeted accordingly for expenses. The price today is about \$72. That \$32 interval, much of it -- not all -- but much of it has been taken and put back into the defense establishment. It's in the documents, although nobody has gotten up there and said so, so you have to read the documents to know this. In other words, they can sustain this operation as long as the price of energy stays high.

The operation in Syria does not cost them a lot of money. It's paying off because they are now dealing with Arab states to get funding and investment that circumvents our sanctions. And again, in Ukraine, since the forces involved in Ukraine are largely inside Russia proper, you can move forces around a minimal cost and keep constant pressure on Ukraine while building up both conventional and military capabilities along the lines Mark suggested.

So, we're at war, although we don't realize it. We're under attack although the president refuses to acknowledge it. Our allies are similarly under attack. Again, not by kinetic means but by this sophisticated cross-domain coercion that we see, but always in the presence of nuclear and conventional threats.

Peter mentioned we have guests from Denmark. You may remember the Russian ambassador threatened your country a couple of years ago with nuclear weapons for no real good reason, simply because you said you're going to defend yourself. When 300

marines came to Norway to help Norway defend its coastline in the Arctic, they made nuclear threats against Norway also. This is what they do, because it's the only way they can intimidate people and force them to take Russia at Russia's own self-evaluation.

And thus you see another purpose for nuclear weapons. Nuclear weapons are also information weapons. They carry with them a psychological (charge ?) which the Russians believe is of importance, because that's why they keep making these nuclear threats. They think those nuclear threats carry with them the information that if you cross us we're going to do something terrible to your country, and that they frighten people.

To be fair, they do, especially if there was no NATO, which is why they want to weaken NATO. We've heard a lot of arguments in this country that the Trump budget, the Trump plan -- Obama's plans were not radical enough, that the Russians aren't going to be threatened and so on. The point is at a time when we were cutting nuclear weapons they were threatening, and at a time that we're going to start building nuclear weapons, which was begun actually under Obama but now is going to accelerate, they are threatened.

They are threatened all the time because it's an illegitimate government that can only rule by force, fraud and despotism. That's the only way they can maintain popular support, given the economic problems and lack of political reform. And the fact that the Russian government, like most of the others inside of the former Soviet Union, are fundamentally illegitimate and unstable governments. You just saw what happened in Armenia. That should be a warning, and it is a warning to them, even if it gets hardly any mention in the Western press.

What I want to leave you with is the idea that we need to watch these guys to understand how they think and why they think, because they think about these issues with great seriousness. They're in business for the long term. They're not going away.

Do not believe the complacent ideas that you've heard that the economy is in shambles and that it's falling apart, and therefore we don't have to pay any attention to them, and just get through the crises and keep doing what we have to do. No, we need to think anew because, as Lincoln said, our situation is new. That means we have to, quote, "dis-enthrall" ourselves from ideas that are no longer relevant.

We need a strategy and not just simply day-to-day adjustments. We have no information strategy against all these attacks that you've seen, which comprise information warfare, organized crime, subversion and so on. We have no strategy for the Middle East, which is part of the larger strategy the Russians have. What they're doing in Syria ultimately is an attempt to influence European outcomes and to push NATO back, if you look at what their conventional air and naval forces are doing.

And we are faced, I believe, with the Russo-Chinese alliance that is a whole other issue for another lecture. I think that's a real threat. Even if the Chinese were operating on their own, I think they're allied with Russia in many ways.

Nuclear weapons are the most prominent and perhaps tangible and largest manifestation of that threat. While I don't think the Russians want war, like Mark, they want the fruits of war and they want to be able to frighten people. Their bureaucracy is set up in such a way as to produce nuclear weapons and worst case analysis.

But the fact of the matter is, and Russian experts inside Russia know this full well, American missile defenses cannot threaten Russia. We are not going to launch a first pre-emptive strike against Russia. NATO is in no position to attack Russia. It's barely in a position to get out of Hamburg and Marseilles, than defend the Baltic states. Therefore, the fact that Russia sees itself at war, in what is otherwise a time of peace, should oblige us to take care of our defenses and of our allies and to continue to monitor Russia closely, soberly, and without hysteria, but without complacency as well.

Thank you.

## (Applause).

Now we're going to take questions. Please identify yourself when you ask a question. Anybody?

MR. STEVE TRAINOR (ph): Steve Trainor from Congressman Pearce's office. I'm particularly intrigued when they hold war games and exercises on the use of nuclear weapons. From what you've seen or heard, do they actually suit up their infantry to then enter the area that they just set the weapon off? What I'm referring to is, do they seem to be using these weapons, these exercises, to develop an envelopment plan where they set off the weapon here and then everybody goes around? Or, do they actually intend to attack through the cloud?

MR. BLANK: That's a good question. The answer is you have to go back to the Soviet period. There's a well-known story that they did this when Brezhnev was the secretary-general of the party. They did a lot of these exercises in Europe because again, the invasion of NATO was the main option. They found that their troops could not advance through a nuclear battlefield.

But if you're using low yield and tac nukes, those effects wear off after a relatively short time. They may not attack first with nuclear weapons and they may not use them on land. They may use tac nukes, for example, against a carrier battle group, let's say, hypothetically.

I don't think they're going to -- just simply, operation A, your first day -- is probably not going to be a nuclear attack because that's already throwing out your escalation playbook. It loses escalation control because then NATO is forced to go nuclear and who knows what would happen. But the exercises are clearly intended to coordinate nuclear and conventional operations. That tells me the nuclear operations are not going to be at the edge of the battlefield, for the most part, but behind the lines, further out. MR. SCHNEIDER: Right now we know a lot about Soviet doctrine, exercises, planning. Large elements of the Warsaw Pact war plan were declassified by former Warsaw Pact states. You can get on the Internet and actually read some of these documents that have been translated into English. Under the de-escalation concept the first nuclear attack is low yield and they're doing a shot across the bow. They hope that terminates the conflict, that NATO in effect capitulates.

While NATO has massive economic advantages over Russia, and if you take a look at the entire NATO military force, it has very large advantages. On day one of the war, that's not true. Anywhere along the Russian border Russia will have conventional superiority if they mobilize and send in 100,000 troops, as they've done in a number of these exercises.

That's the real danger, because what happens? If they can do a successful blitz attack against any NATO state, the next thing Putin is going to do is the nuclear (track ?). Is he going to carry it out or not? I have no crystal ball. If he does, we're in a real serious situation.

What happens after that is unpredictable. Are we going to retaliate in kind? If we don't retaliate in kind, will they escalate further and see this as a successful strategy? What I'm saying is you've got an extraordinarily uncertain and potentially very dangerous situation if they implement the strategy as they've described it in the official publications and the doctrinal literature.

MR. BLANK: Any other questions? I want you to know I was a college professor. I call on people.

MR. HUESSY: Would you both address the issue of what are we not doing in both the missile defense and nuclear deterrent and defense budget at large? You mentioned information warfare, which is critically important. What are we not doing that we should be doing in the missile defense and nuke area, but then broaden it to, as you say, the entire panoply of capabilities?

MR. BLANK: I'm not an expert on U.S. defense systems, so let me talk about what I do know. The information issue is crucial. I think it's even more crucial than missile defense, frankly, because information warfare is going on right now, all over town, all over the country, and all over Europe.

There is a systematic offensive being waged by Moscow, not just to corrupt the media, but to interfere with political elections, political subversion, organized crime, all over Europe and here, and there is no coordinated Western strategy. I'm not even sure there are a lot of national strategies that are coordinated. There have been some commendable attempts by NATO states in Europe to set up what are called centers of excellence, that NATO set up in Tallinn. I think there's another now in Helsinki, oddly enough, even though Helsinki is not a member -- Finland is not a member of NATO. But

there really isn't' a systematic counter offensive.

As long as the president refuses to give the orders to the NSA to counter Russian activities, we're in jeopardy of having another repeat in 2018 of what happened two years ago. I'm not saying the elections are illegitimate, but I think it's not a matter of doubt that the Russians interfered with our elections on a large scale. Until that is recognized and the proper bureaucracies are coordinated and galvanized into action, we're going to be vulnerable.

There is no strategy from the BFB, Board of Foreign Broadcasting, to do anything about this kind of work. Radio Free Europe and VOA are not being given the opportunities to do what needs to be done. If you come to them and say, we need a strategy, they say that's propaganda and we don't do it. There are people who refuse to understand that telling the truth is not propaganda. I could go on.

On missile defense and nukes, Obama actually started to get the nuclear rebuilding underway. The Trump administration's budget for this year takes a massive step forward. The NPR, I think, was an excellent document. I think it laid out the case quite thoughtfully and quite well on why we need nuclear modernization. Predictably, it was attacked from the left.

But as Peter's article the other day suggested, a lot of these arguments don't make any sense. Missile defense is not a threat to Russia. Russian scientists and experts know it. The Russian government knows it. Gates, Condi Rice, Hagel, everybody and his uncle told the Russians it is physically impossible for these systems to threaten Russia.

Yet they persist in believing that they are. That's because the Russian system is set up to give you the worst possible threat analysis and because Putin has said if the military tells me it's a threat, then it is a threat. I don't know any American president who has ever said that.

MR. SCHNEIDER: Yes, that's exactly accurate. My focus is more on the highend threats than the low-end threats, but it's a combination of both and you've got to deal with the whole nine yards. If you don't, you've left yourself vulnerable.

We have not for the last two, almost three, decades put a lot of emphasis -- until very, very recently -- on dealing with the high-end threat. We basically told ourselves they didn't exist. Then the Russians invaded the Crimea and Ukraine and we've had an enormous change in threat perceptions. I do give the Obama administration credit as that happened in the Obama administration. It was long overdue.

The problem was, though, in the Obama administration didn't really do much about that. I think that because the White House was not allowing the Defense Department to do what should have been done. We've started doing this, but we've got a long, long way to do. In terms of the deterrence of Russia, what scares me more than anything else is we have token forces along the NATO border. That almost invites Putin to miscalculate. When you link that to the nuclear escalation option it's a really dangerous miscalculation.

We need more than four NATO battalions in Eastern Europe. We need more than one armored brigade. They're going to send a so-called fire brigade there to give air and short-range missile support.

I think the Atlantic Council study of military requirements is very much on the mark. They estimated several heavy brigades should be deployed along the Russian border, and I think that eliminates the quick grab option. If we don't do that, we're playing with fire.

The Nuclear Posture Review is a very important document. It's the best of its kind since these things began in 1993. But I think we need to do something to really implement it and, if possible, implement it on a faster scale than is in the document itself.

The press has reported that the Defense Department is unsatisfied with the Department of Energy's pit production capability, and that determines whether you can build new nuclear weapons or not. They want it in 2026, not 2030. My view is I'd rather have it in 2022.

Quite frankly, if you go back to the 1940s, we went from three nuclear bombs in 1945 to about 12,000 nuclear bombs in 1958. Under the Department of Energy plan in 12 years from now we'll have the ability to produce 80 nuclear bombs a year. You can't maintain even a few thousand nuclear weapons without a production capability.

The life expectation for a nuclear pit, the fissile material for a nuclear weapon, is 45 to 60 years. Well, the average U.S. pit is 35 years now. The oldest U.S. pit is over 40 years, so we're getting pretty close to this number. Nobody has ever tested a nuclear weapon with a 45 or 60 year old pit in it.

So there's a lot of uncertainty here and I think we ought to be doing more than we are doing right now to deal with that potential problem, particularly when you're in a situation where Russia has a production complex that can produce at least 1,000 new nuclear weapons a year. That translates into the ability to sustain somewhere between 10-20,000 nuclear weapons on a permanent basis, and they have mothball capabilities that go beyond that. That's the sort of thing I think we have to do.

I hope John Bolton rides herd over the NPR from the NSC. We're still under a lot of serious budget constraints and we've got to assure that it actually implements what is in the document.

MR. : I'm curious, was the Russian strategy adopted during Yeltsin's time?

MR. BLANK: Was the Russian strategy adopted during Yeltsin's time?

MR. SCHNEIDER: Yes, the NSC meeting that adopted this was in April of 1999. Actually, Vladimir Putin was the guy who ran what we would call the roll-out of the new strategy. He was the secretary of the National Security Council staff.

There are press reports that Yeltsin authorized low yield nuclear testing as part of this package. There were press reports in Russia, and a lot of subsequent reports a decade or two later, that he authorized the development of the new types of low yield nuclear weapons that have now been fairly commonly reported in the Russian press, including the state media, which I find a little amazing. You actually have state media, which is information operations, talking about things like arms control violations, calling arms control violations.

But when you take what they're describing and put it up against the treaty, they aren't arms control violations. Russia is an authoritarian state now, it's getting worse every year, but it's not a totalitarian state of the Soviet type. You still can get some interesting information out of the Russian press.

MR. : (Off mic).

MR. BLANK: We didn't take it seriously at the time.

MR. : (Off mic).

MR. BLANK: That's an example of not taking it seriously. This was publicly announced. The meeting was in April of 1999, because it's a response to Kosovo. They didn't have a conventional option they could use in those days. If you remember, when Putin becomes president he could barely find 65,000 men in the Russian army all over Russia to fight in Chechnya. So nukes were all they had. They wanted to show that they were unhappy with Kosovo and what it meant, and this was the inauguration of this new nuclear strategy. So you see the '99 meeting, you see the 2000 National Security doctrine, and subsequent publications and changes.

MR. SCHNEIDER: The point that Steve constantly makes about the divorce between Russian threat perceptions and reality is the Russian threat perception of what went on in Kosovo, which has no relation to what actually went on in Kosovo. That's one of the biggest problems we face with the Russians. I'll give you one example.

A few years ago a Russian general declared that NATO by 2020 was going to have 80,000 cruise missiles and 2,000 of them would be nuclear. Nobody in his right mind could believe this, but this is what the guy said. The question, of course, in my mind is, if they're briefing on a war and peace decision are you going to tell him NATO's got 80,000 cruise missiles out there and 2,000 are going to be nuclear? If you really believe that you're not going to attack NATO. So I think when push comes to shove, if you're in a really war and peace crisis, you're going to get a more sensible threat assessment than you frequently do in peacetime. MR. BLANK: Are there other questions?

MR. : Steve and Mark, thank you for coming. Is Russia a country that must be at war, just because of their regime? If so, when Charlie Wilson looked at the war in Afghanistan and wanted that war to go on forever, should Syria continue on forever? If that somehow goes to peace one way or the other, does Russia need to prove that they are still at war by going somewhere else? Where might they go? They say that land grabs tend to be permanent about 70 percent of the time. What Russia has grabbed so far they haven't given back. Where might they go next and how would we respond?

Khrushchev was reported to have said that if tactical nuclear weapons have to be used on the battlefield, there was release on the battlefield for the generals to use them. He was only interested if nuclear weapons were going to be used in Russia itself.

MR. BLANK: That's three questions, first of all. As long as you have the kind of government, a traditional (autocracy ?) that Putin is presiding over, they will see themselves in a state of conflict with the rest of the world. One of Lenin's Social Democratic opponents attacked Lenin for putting Russia's social democracy into a state of siege. What Lenin did was put world politics into a state of siege. For these guys that siege still exists. It's (contrary ?) to Marxism-Leninism, but that's what international relations are.

They need an external enemy to focus domestic consolidation of power. If you have regime change, that may change also, like it did under Gorbachev. Gorbachev changed the regime even before he changed everything else. For a while, there was no perception of that kind of threat. In the early '90s their threat perception is radically different. That's going to continue.

Syria, yesterday Sergey Lavrov admitted that they could not guarantee what Syria's future borders would look like. I don't think it's in our interest, for a lot of reasons, that the Syrian civil war just go on and on, because it's not going to bleed the Russians. The longer it goes on the more dangerous it becomes to the entire Middle East, if not Europe. The longer it goes on, for Europe, the more refugees. The longer it goes on the danger of war in the Middle East, Iran and Israel or Sunni-Shiite or whatever and ISIS, continues.

The problem is, as I mentioned earlier, we have no Middle East strategy, no serious strategy. You can't intervene in a third country's civil war unless you have one of two conditions working for you: your own forces can go in, win the battle, and put somebody in charge; or, you find a credible candidate in that country, you back that candidate with arms and political support and so forth, and you give him the opportunity to win. If he wins, fine. If he loses, so it goes.

We have no political substitute for Assad. Yes, we could send the entire U.S. military over there and it wouldn't do a bit of good. So until that point when there's a

strategy which either puts up some sort of credible political alternative or says we're going to defend the rest of our interests in the Middle East, and those are our allies, but we can't do anything about Assad, this is going to go on and it's going to be the biggest humanitarian catastrophe of our time. I just wrote an article saying it's like the Spanish Civil War, but it's worse in the sense of refugees.

MR. : So that drives up oil prices, maintains chaos in Europe and Russia seems to be (the beneficiary ?)?

MR. BLANK: Well, it doesn't maintain chaos in Europe. It creates problems for European governments. It drives up oil prices, allows Russia to play the part of Middle East arbitrar that it wants to play. It undermines U.S. alliances and leads countries like Saudi Arabia to make deals, and not just Saudi Arabia but Turkey, Qatar and so on, to make deals with Russia. It allows them to circumvent sanctions and so on and so forth.

MR. SCHNEIDER: One thing that concerns me about the Russian talk about the so-called lessons of Syria is that Syria is not a high intensity conflict. It's a low intensity conflict. It's against a vicious enemy, but one that is not particularly well-armed or well-trained and not very good.

If they are getting lessons out of this thing, other than diagnosing technical glitches in the weapons they're using, they could be creating a real Potemkin village about their military capabilities. Our experience with low intensity conflict in the Middle East is you become very, very good about close air support, but you lose everything else in the process. So they may be in effect exaggerating their military prowess based on their analysis of what's going on in Syria.

Personally, I do not believe that Putin would have reached senior rank in the Soviet Union. He was too reckless, and you can see that in his OERs that have at least been talked about. I don't know if they've been officially released. I think he has a significant potential to miscalculate, and he is abysmally ignorant of much of the world.

MR. HUESSY: Thank you.

(Applause).

Thank you all for being here, and tomorrow you'll get a brief on China. We'll make you equally optimistic about China.