

National Institute for Deterrence Studies & Peter Huessy Seminar

Russia's Evolving Tactical and Theater Nuclear Posture

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Webinar Transcript

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Abstract

This seminar, hosted by the National Institute for Deterrence Studies (NIDS) and Peter Huessy, examines **Russia’s evolving tactical and theater nuclear posture** and its implications for global security. Led by Dr. Phillip Karber, Professor of Strategy and Practice at the National Defense University, the session explores the scope and modernization of Russia’s non-strategic nuclear arsenal, including dual-capable systems, artillery, air-delivered weapons, and advanced missile platforms. Dr. Karber analyzes doctrinal shifts such as “escalate to de-escalate,” recent developments in Belarus, and lessons from Russia’s military exercises and operations in Ukraine. The discussion addresses key questions: What capabilities does Russia possess? How do they shape strategic stability? And what options exist for NATO and the United States to maintain credible deterrence? This timely briefing provides critical insights for policymakers, defense professionals, and scholars concerned with nuclear strategy and international security.

Executive Summary

The National Institute for Deterrence Studies (NIDS) hosted a seminar titled “**Russia’s Evolving Tactical and Theater Nuclear Posture**” featuring Dr. Phillip Karber, a leading authority on nuclear strategy and former advisor to U.S. defense leadership. The session provided a comprehensive analysis of Russia’s non-strategic nuclear forces, which now outnumber its strategic arsenal and pose significant challenges to NATO’s deterrence posture.

Dr. Karber highlighted several key points:

- **Scope and Modernization:** Russia maintains thousands of tactical and theater nuclear weapons, integrated across artillery, air-delivered systems, and advanced missile platforms. Many are dual-capable, complicating security and operational control.
- **Doctrinal Shifts:** Russia’s adoption of “escalate to de-escalate” introduces a coercive element to nuclear strategy, leveraging limited nuclear use to compel adversary concessions.
- **Recent Developments:** The deployment of nuclear assets to Belarus, large-scale Zapad exercises, and extensive missile and drone strikes underscore Russia’s evolving posture and willingness to integrate nuclear options into conventional campaigns.
- **NATO Vulnerabilities:** Current NATO nuclear forces—primarily B61 gravity bombs on a small number of aircraft—are limited and vulnerable to preemption, raising questions about credibility and survivability.
- **Policy Implications:** The seminar concluded with a call for reassessment of NATO’s nuclear strategy, modernization of delivery systems, and consideration of long-range precision strike capabilities to restore deterrence balance.

This discussion underscores the urgency of addressing asymmetries in non-strategic nuclear forces and adapting alliance posture to meet emerging threats.

Unabridged Transcript

(Note: there will invariably be some word errors in the following transcript.)

00;00;06;07 - 00;00;33;06

Kimberly Cherington

Good morning. I'm Kimberly Cherington, the director of operations here at the National Institute for Deterrence Studies, or NIDS. And I want to welcome each of you to today's seminar, ***Russia's Evolving Tactical and Theater Nuclear posture with Dr. Phillip Karber***. Doctor Karber is a professor of strategy and practice at the National Defense University. He holds degrees from Pepperdine and Georgetown.

00;00;33;07 - 00;01;07;10

Kimberly Cherington

A Ph.D. in international law with post-doctoral certificates from Harvard, Kennedy School, Wharton and Harvard Business School. A former U.S. marine, Dr. Karber began his national security career in 1968 under Admiral Burke, advising on tactical nuclear weapons. He later directed the NNSM 186 net assessment of the military balance in Europe, and served as strategy advisor to the Secretary of Defense and Chairman of the Joint Chiefs,

00;01;07;10 - 00;01;39;04

Kimberly Cherington

At the Cold War's end, he led the only DoD initiative to interview senior Soviet military leaders

on the views of the strategic outcomes. We are honored to have you here, Doctor Karber. And just a reminder in two weeks from today, we will host Dr. Don Cook, who will be addressing strategic stockpile stewardship to find all of our upcoming events and register you and your colleagues, or read our publications or listen to our podcast.

00;01;39;06 - 00;02;07;20

Kimberly Cherington

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00;02;07;23 - 00;02;30;07

Kimberly Cherington

And we will address those during the Q&A portion of today's talk. Now, it's my pleasure to introduce our host for today's seminar, the acclaimed Mr. Peter Huessy, President and Senior Director of Strategic Deterrence Studies at Geostrategic Analysis and a senior fellow here at NIDS. Peter, over to you.

00;02;30;10 - 00;03;00;14

Peter Huessy

Thank you very much, Kimberly. I want to welcome our president, Jim Petrosky is here today. And also our honored guest, Phil Karber. What I wanted Phil to talk about today is, and we often talk about the nuclear stockpile that Russia may have, and we talk about their start related or new start related forces. But we often forget, a force that's even greater in number than their deployed start accountable weapons.

00;03;00;16 - 00;03;28;26

Peter Huessy

And that is their theater or regional nuclear weapons. It's often dismissed that, well, the same as strategic. And the question is Phil's going to go through what Russia has, what do they have them for? What is the threat? Why should we be concerned? And possible U.S. reactions? I want to thank you, Phil. Been some time since we talked last, but, always enjoy your remarks and always learn an enormous amount.

00;03;28;26 - 00;03;37;29

Peter Huessy

So, on behalf of NIDS and our audience and the sponsors we have today, I want to thank you for joining us. And over to you, sir.

00;03;38;02 - 00;04;04;08

Phillip Karber

Thank you. Peter, it's great to be here. Let me start off by saying that, since I'm on furlough, I'm

not speaking for, either the National Defense University or the U.S government. The views I'm expressed here are my own. And I'd like to thank the Potomac Foundation because they provided research assistance to have a number of researchers pull a lot of the data together that I'm going to show today.

00;04;04;10 - 00;04;37;01

Phillip Karber

So, thank you very much. Kimberly, if you throw the first of, the next slide, please. But I'd like to addresses is the non-strategic arsenal of Russia. And it runs the gamut from, nuclear artillery all the way up to a long-range theater systems, which have strategic consequences for those who are inside their coverage envelope.

00;04;37;03 - 00;05;08;15

Phillip Karber

And, one of the things that is interesting about these weapons is that the vast majority of them are dual capable. And on one hand, it seems like a great idea. It's efficient. So, you don't have to have a separate assets dedicated solely to nuclear weapons. And, it gives a lot of flexibility to both your operators and your strategists.

00;05;08;17 - 00;05;51;03

Phillip Karber

On the other hand, that reason I put versus frustration, in the slide is, the two levels, dual capability can be a serious, challenge for the crews that are operating them. It means, double work. And there's all kinds of issues, really just to surety and security. And the margin of error for, dealing with a nuclear weapons, no matter how small, is much smaller than with traditional military assets.

00;05;51;05 - 00;06;18;15

Phillip Karber

So, it creates a real problem in terms of the traditional military organizations who want to get on with doing what, they feel best that they haven't found a nuclear war or even, maybe even thought about it. So, it seems like it's odd. It serves as a diversion. The other, on the other hand, are the politicians or senior leaders who are concerned about having lots of loose nukes running around.

00;06;18;18 - 00;06;57;13

Phillip Karber

Jack Kennedy in Berlin crisis specifically expressed that, concern. So dual capability is a is a bonus and also a challenge. I'm going to go through each of these areas and then Peter asked me to give this lecture last spring. If I had, then, I would have been much more circumspect because things have happened since the spring that are even beyond my wildest imagination in terms of concerns.

00;06;57;16 - 00;07;24;09

Phillip Karber

That I would have had then. So, things are moving at a relatively rapid pace. So and I believe that they sort of came to a head last month during the Russian support exercises, and their introduction of nuclear weapons into, Belarus and also the drone activity and airspace violations that are there have been, both preceded and, been following since, as a part.

00;07;24;12 - 00;07;37;01

Phillip Karber

And lastly, I want to raise some concerns about NATO's deterrent posture. Next slide please.

00;07;37;04 - 00;08;04;22

Phillip Karber

I'm going to start with some fairly simple issues to those who are in the business. But one of the reasons why I wanted to emphasize that is those of us who deal with this, on a daily basis or have thought about it a lot, we tend to talk in our own jargon. We tend to be aware of our world.

00;08;04;25 - 00;08;49;22

Phillip Karber

But the many people outside that were people who are making critical decisions about resources, about support, they hear the word nuclear weapon. They think all nuclear weapons are like, and I think there's a number of issues that get raised here that need to be clarified. Also, we're in the spot that we're in because in 1991, following the was clearly Russian withdrawal from Eastern Europe, damn near collapse of the Russian economy.

00;08;49;24 - 00;09;23;11

Phillip Karber

The concerns about Russia even being able to control its own nuclear arsenal. The... president Bush, with Colin Powell and, Brant Scowcroft encouraging him, proposed and, and Gorbachev went along with it, to have a mutual unilateral reduction o central systems. I mean, many tactical and theater systems had already been some success with the INF treaty.

00;09;23;13 - 00;09;50;05

Phillip Karber

We're getting rid of the SS 20 versus and the in exchange for Pershing and GLCM. So, this sort of seemed, in a way, seemed natural. What was weird is the way it was done. It wasn't really negotiated. It wasn't really an arms control agreement. There's no verification and there's no commitment. It's just each side declares that they're going to reduce their nuclear arsenal.

00;09;50;07 - 00;10;18;06

Phillip Karber

We went from something on the order of something like 5000 attacks on theater weapons down to several hundred. The Russians went from something on the order of 20,000, down to about 5000. Over the next ten, 12 years. Some huge reduction on both sides, but, it was asymmetrical. We got rid of nuclear artillery.

00;10;18;12 - 00;10;51;17

Phillip Karber

We got rid of virtually all naval weapons. We, we got rid of a lot of, extended, range, weapons. And we were left with essentially air delivered, gravity bombs, a B61. We spent a lot of money modernizing the B61 giving it variable yields, and but primarily making it safer and more secure.

00;10;51;19 - 00;11;27;27

Phillip Karber

The Russians spent a lot of effort, as we'll see, developing not only new systems, but also new warheads. So, this is just what was interesting is this this asymmetrical reduction is sort of left is where we are. We'll come back to it at the end. As I said, you know, we tend to think that all nuclear weapons are the same, and the basic principles are, but the difference between the smallest tactical nuclear weapon and the largest nuclear weapon in either superpowers inventory.

00;11;27;27 - 00;12;01;18

Phillip Karber

I'm not talking about Tsar Bomba, but the operational inventory is a million, so the smallest is down to 20 tons, and the largest is a 20 megatons. And we need to appreciate what that difference is because it's significant. And, I'll go through some of these points in the next couple slides. I apologize that seem simplistic or telling everybody what they already know, but I think even though we know it, it's important to kind of educate others about it.

00;12;01;18 - 00;12;12;01

Phillip Karber

Next slide.

00;12;12;04 - 00;12;43;25

Phillip Karber

So we've all seen this the charts about the number of central strategic systems or the total number of warheads the two sides had. Well, sort what's interesting about it is in non-strategic systems, the U.S had put a major effort, in, in, designing, developing and deploying, tactical and theater nuclear weapons in the 50s.

00;12;43;28 - 00;13;28;26

Phillip Karber

We and we were significantly ahead. We had, and the Russians found it harder because, first of all, they were trying to build up their strategic forces. They, had problems reaching continental United States. Miniaturization was a major issue. So they had about a 20-year lag, between when we had them and they felt inferior to, their posture at the peak of the Cold War, when we, you know, signed on to the mutual reduction they had we were already down to about a third of similar systems.

00;13;28;28 - 00;14;02;25

Phillip Karber

And so, they had a lot more, and this took them longer and it generally kept a larger number. I have a question mark there for the last 10 or 12 years because, outside of the government, it's hard to get data. And in fact, I was in one quick war story at the end of the Cold War, I was doing a, an advance with, in Moscow with Carlucci.

00;14;02;27 - 00;14;21;29

Phillip Karber

And, he sent me out to be with the right guys. And, we were talking about the Lugar, proposal to have containers for warheads, these two, three stars and the rocket forces that they didn't want to be there. They were not happy about the way things were going at the end of the Cold War.

00;14;22;02 - 00;14;52;29

Phillip Karber

So. But so we were talking about it and, and, they said, well, you know, well, we don't have anything like that. It might be interesting. So, I said well, how many do you think you need? And they said, well, we need about 40,000. And I asked, well, but you're going to keep several thousand, warheads, why do you need two of these protective containers for warhead?

00;14;53;01 - 00;15;08;01

Phillip Karber

And he looked at me like I was talking Greek. And they said, no, we have 47,000 warheads. So, you can't. I briefed the president of the United States on this.

00;15;08;03 - 00;15;28;26

Phillip Karber

At the height of the Cold War, with all of our intelligence, we missed a fairly large number of, 15,000, that they had. Not all of them were certainly operational. Some of them were... So, I even asked them, I said, some of these are for old systems. You don't even have the delivery system for me.

00;15;28;29 - 00;16;06;14

Phillip Karber

Yeah. You know, so why don't you recover the material? Oh, it's too expensive. It's kind of dangerous. You never know. We might need them, so we just put them away. So my point about that is it is very hard to do use national means, to identify how many nuclear weapons people have. And I think it is prudent to recognize, not only a high level of uncertainty, but a serious amount of entropy in terms of, and be humble about numbers when we throw them around.

00;16;06;16 - 00;16;11;21

Phillip Karber

Next slide.

00;16;11;24 - 00;16;42;21

Phillip Karber

So, this shows the evolution of our non-strategic cards in blue. The reason I have the yellow they're in line is I, 2013 Dr. Joe Braddock, who was, long time boss and also a close friend, founder of the Potomac Foundation. And I had a session with, Sergey Rogoff and some, Russian generals.

00;16;42;23 - 00;17;13;04

Phillip Karber

It was a... it was a fairly honest discussion. And in fact, I never found them being, deceitful or dishonest. Other times it was a I won't answer that question. One of the generals, told us the, we said, well, we have about 5000, a non-strategic, warheads. And he said, the 3000 are in deep reserve, and storage.

00;17;13;06 - 00;17;53;04

Phillip Karber

And, we have 2050 or 2050 was kind of a weird number. And so, I said, you mean 2500? You know, I mean, 2050. And these are our modern warheads. So, well, if I put that number in, on this chart, that would be the, the, the, the was in the blue or sort of purplish color and the, the yellow is, is questions about, well, how much do they still have 3000 warheads in storage, in deep storage or have they got rid of them?

00;17;53;07 - 00;18;12;25

Phillip Karber

And so where do they go? So forth, so on. So there's a significant level of ambiguity. It makes a difference. Because if you look at the delta between the what could be the top of the purple line and the and the blue line, there's, there's a potentially big difference. I'm not saying that I know. I'm just raising the question.

00;18;12;28 - 00;18;18;04

Phillip Karber

Next slide please.

00;18;18;07 - 00;18;44;22

Phillip Karber

You know, it's easy to demonize people in these kinds of debates. So, I thought I would, I went to look at the Bulletin Atomic Scientists and work with Hodge Christiansen. And, I think he's an honest workman. And like anybody, you know, going through this material, you have to make assumptions. And he's very explicit about his assumptions, which is useful.

00;18;44;24 - 00;19;16;03

Phillip Karber

So just throwing, numbers around, and it's sort of interesting using his numbers, for Russia. It comes out with about 1400. I noticed in going through the categories that he ignored, artillery. And in the discussion with, the Russian generals, you know, 12 years ago, they said they had

over a thousand, you get our artillery shells so that I go, gee, I don't think they got a complete wiped out.

00;19;16;03 - 00;19;31;19

Phillip Karber

That inventory on the other side is ours. And basically we're down to a relatively small number of B61 bombs.

00;19;31;21 - 00;20;03;26

Phillip Karber

I am not one to say that a, a disparity in numbers automatically, as either political or strategic significance, but if you use Hodges numbers, it's be, 7 to 1. If you soak my numbers in for a jury, it would be 10 to 1 difference in non-strategic weapons. And at some point you begin to say, well how does that impact on your options, your confidence.

00;20;03;28 - 00;20;21;14

Phillip Karber

Does it get what does the opponent, feel. Does he feel more emboldened to push you around. So, it's an interesting question, and we'll come back to it next time.

00;20;21;17 - 00;20;47;08

Phillip Karber

So not all nuclear weapons are like, the chart on your left shows the it shows essentially for it with examples. I certainly didn't list every warhead in our inventory or theirs, but shows a range of delivery systems, or warheads. It went with different delivery systems. And like I said, the smallest was 20 tons and the largest, 20 megatons, you say?

00;20;47;08 - 00;21;15;07

Phillip Karber

Well, what is that? What's the difference? Well, the explosive power of the two planes hitting the World Trade Center was roughly 20 tons worth of explosive if you put them together. And that's kind of a reasonable representation of, what, a 20 ton. Warhead does. On the other hand, when you overlay it, 20 megatons, the, it's a completely different universe.

00;21;15;10 - 00;21;48;14

Phillip Karber

And the difference is, like I said, a million times, an explosive yield. And, it raises the, It challenges the, the issue of whether having lower yield and nuclear weapons has some value. And we'll come back to that next slide.

00;21;48;16 - 00;22;30;08

Phillip Karber

Well, the examples on the left just again highlighting, the phenomenology, the phenomenology, of the nuclear explosions, are not the same. At the ends of the spectrum, the yields have big,

dying, big effects, but they have literally earth shaking, consequences in terms of the amount of fires blow down, material, radiation and so forth.

00;22;30;10 - 00;22;58;03

Phillip Karber

On the other hand, at the lower end, because the effects of nuclear weapons are, attenuated by the atmosphere with radiation attenuated to the cube, where, blast and, shock, blasted fire or to this where, as you get down into the lower yields, a proper radiation has an effect. As you get it.

00;22;58;05 - 00;23;25;00

Phillip Karber

But relatively quickly, as you go up in yield, it becomes irrelevant because, blast and shock already quickly. Overtake. Those effects I the two illustrations on the left are also interesting. They're basically taken from the same distance ones, 15 kiloton worried one. And the other is a, it was 22, a ton warhead.

00;23;25;02 - 00;23;43;17

Phillip Karber

So, when you get a big mushroom crowd, you get a lot of shock effect. Yeah. There you see a bright light. So it is, it is really radically different light.

00;23;43;19 - 00;24;00;24

Phillip Karber

So we'll go through the systems are sort of mentioned, the dual cable. So, the best example of dual capability is the two capable, artillery actually.

00;24;00;26 - 00;24;21;00

Phillip Karber

So, like I said, we got rid of all of our nuclear artillery. I believe the chief of staff of the Army actually went. And beg President Bush not to get rid of everything. At least keep one brigade of, you know, and, the feeling was, let's just get rid of it. I don't know what happened to.

00;24;21;01 - 00;24;53;02

Phillip Karber

At one point, the Navy was going to store, ACW warheads. But my impression is that they have gone away, but that just maybe because I don't know, the Russians have been, modernizing their nuclear artillery, that that VMs the, the top, they built actually only deployed four of them. And as I said earlier, they had they were behind in miniaturization.

00;24;53;04 - 00;25;25;07

Phillip Karber

And they thought. So, they said, okay, we'll make it. Generally, we'll make up, for the difficulties we have in Miniaturizing for, and the accuracy for the artillery provides with, bigger is better. So, we put a bigger warhead on them. Frog or scud free rocket or missile. So, for 20

years, they basically we had nuclear artillery and we were modernizing it.

00;25;25;09 - 00;25;50;22

Phillip Karber

And because of that, we moved to, NATO's concept of flexible response under the assumption that if we were being faced with a massive conventional attack, that we and we can no longer hold the front, we could initiate nuclear fire on our territory, which would prevent their massing and hopefully, keep a breakthrough from happening.

00;25;50;24 - 00;26;30;03

Phillip Karber

The by the 70s, but actually late 60s, the Russians began realizing because they were, at that point going, I did with the Chinese. And you remember a U. Sorry. They began, identifying the value of having, accurate low yield weapons, to offset an opponent who has the advantage of conventional mass. So they began developing and fielding, first, we towed artillery, but relatively quickly took those towed tubes and put them wrap them around and, and attract armored vehicle.

00;26;30;06 - 00;26;56;23

Phillip Karber

The advantage of the self-propelled artillery. And by the way, every system on here, this list has or almost everyone has a towed equivalent. And there's nothing that keeps you from firing a nuclear warhead out of a towed gun. And they're cheaper. The advantage of having self-propelled is you can rapidly displace.

00;26;56;23 - 00;27;33;03

Phillip Karber

You can fire and move and scoot. And so, it reduces your own vulnerability to a counter fire. Has been shown in Ukraine. Towed artillery. The crews are very vulnerable to counter fire the tubes and the, towed systems just basically steel, tend to have a pretty good survivability and, and, and if you have a tire that shot out, you can replace a tire so forth with self-propelled artillery.

00;27;33;03 - 00;27;58;18

Phillip Karber

It's much more complex. And, when it gets hit, it tends to be more catastrophic not only to the vehicle, but to crew. So, this was the Russians. The third system down from the top was interesting. The Russians were having trouble. They wanted to kind of mimic it has radiation warhead development. And so, but again, they had the problem of miniaturization.

00;27;58;18 - 00;28;28;29

Phillip Karber

So they found it easier. So they brought out an old, 240 mortar, which actually had an actually very short range, and, but it gave them the room to be able to have a warhead design, that they

could actually manufacture later than developed a wrapper. So that you'll notice that that's the one system on here that we, we have strong reason to believe was, was, as an air warhead with the others.

00;28;28;29 - 00;29;00;14

Phillip Karber

Do or not or have gotten them, I don't know, the difference between the dark and the lighter color on those bars is generally having a rocket assisted projectile or in one case, having the specially designed shell that gives extended range, and there's a range of yield from reasonably large all the way down to 20 tons, actually.

00;29;04;15 - 00;29;36;29

Phillip Karber

So along with the development of the systems, the Russians, also, we're building new warheads. We were building them as well. I was involved in the first the eight inch, and as radiation warhead and then, the efforts to develop the, the improved one, five, five hours ended up being, either held back for political reasons, or the program didn't happen.

00;29;36;29 - 00;29;57;08

Phillip Karber

By the time the end of the Cold War, Russia's, having a systematic effort to to, have new warheads. The photo there on the, on the far left is the, 20 ton shell for their 152. Next slide please.

00;29;57;10 - 00;30;25;01

Phillip Karber

So the tactical advantage is if you use a large release relative, if you use something in the in the a kiloton range, lower kiloton range on the battlefield. It's still a messy... it the bigger the yield, the more dirt material you kick up, which me then gets produces a radiation fallout.

00;30;25;04 - 00;30;53;16

Phillip Karber

You create a tree blow down you got burning villages. And it's hard in it's interesting in most of the exercises I participated in over the years, when both sides have that size weapon and are using that in fairly significant numbers. You end up not getting, blitzkrieg, but it's great if you have low yield nuclear weapons.

00;30;53;19 - 00;31;16;07

Phillip Karber

In the less than two kiloton, you can use them much more discreetly. You don't have the secondary. A lot of the secondary effects, and it allows you to be able to maneuver, but it's interesting. I remember talking to a Soviet general when we were doing the interviews at the end of the Cold War.

00;31;16;09 - 00;31;38;26

Phillip Karber

And his argument was, if both sides have nuclear weapons, it's sort of like, if both sides have chemical, it just makes a mess of the battlefield. But, it is decisive when one side has them and the other side doesn't. It was using both the example of chemical and from the World War one eastern front and also, modern day, tactical nuclear weapons.

00;31;38;28 - 00;31;44;01

Phillip Karber

Next slide please.

00;31;44;04 - 00;32;21;18

Phillip Karber

Russians have lost a lot of artillery in Ukraine. These numbers, by the way, are relatively conservative. I've seen numbers as high as three times those totals. But even these numbers that are pretty, pretty, confirmable or, reasonable, and based on a lot of evidence, they basically have lost, in numbers, the inventory they started the campaign in Ukraine in 2022 with now they had other artillery and other active units, special artillery brigades.

00;32;21;21 - 00;32;50;28

Phillip Karber

They had stuff in stored in resupply units and they certainly had a lot of, cold storage and it's, recent analysis done on overhead, which shows that. But basically, much of the, story, story stored, areas of, artillery, are now empty. If not all the systems that are damaged are destroyed.

00;32;51;00 - 00;33;24;26

Phillip Karber

So, they can be recovered and Pete parts cannibalized. The problem that Russians have is they have only four major plants that can actually do that, that that work. And it's just time consuming. So, it would take years to replace. And these guys have losses. It's the same with new production. Next slide. So, they still have about 30% of by my, some of their, nuclear capable, assets.

00;33;24;28 - 00;33;53;17

Phillip Karber

Air is also a, a significant, you know, strategic asset, ranging from the T Tu 122M bomber, and, and particularly now with long range of stand, missiles, which can greatly increase its own range, or its, reduce its necessity to penetrate defenses and thus be vulnerable as a carrier.

00;33;53;19 - 00;34;24;19

Phillip Karber

So, that that is a development that is, relatively new in the within the last few years. And it seems it appears to have a major significance that say you can carry the four of those long-range missiles, the new SU 34, which is a good strike aircraft, excellent strike aircraft, be better if it

was stealthy, but other than that, it, performs well.

00;34;24;21 - 00;35;09;01

Phillip Karber

It carries one, and the, that makes 31 carries, one of those missiles. The older SU 24, which the, the offensive which the, AC 34 replaced, used, essentially a gravity bomb or, shoot retarded, bomb for delivery. I put the MiG 29 and, I think it should be AC 30, on there, because those planes, do have the hardpoints and they have been used, for, according to the Russian generals that I spoke to again.

00;35;09;04 - 00;35;32;24

Phillip Karber

More than a decade ago, they could be used for nuclear delivery. At least, one bomb, per plane or something. What the reason I put it here, and I should have shown it on the other side, too, is the other side. Two of those, nuclear, our nuclear systems are in the inventory of the Belarus.

00;35;32;27 - 00;35;46;25

Phillip Karber

And, and also these two, are in and, these two aircraft in orange are Belarusian Epsilon.

00;35;46;27 - 00;36;13;00

Phillip Karber

The Russian air losses have not been as significant as, the artillery. It took particularly heavy losses in the early days and basically now, aren't flying either over the battlefield or even deep, but doing air, delivered missiles. In total, they've lost 80 of these nuclear capable aircraft, but still have a number left.

00;36;13;05 - 00;36;18;16

Phillip Karber

Next Slide

00;36;18;18 - 00;36;58;11

Phillip Karber

The Russians have been going into a wide range of missiles. I mean, it is really surprising. And they're not only, you know, development, right? Ideas, but actually being deployed, and they range from being able to carry a thermonuclear war head all the way down to a tactical. It's sort of interesting. The S-300, as a ten, air defense missile as the capability is as the S 400 as well as a nuclear capability, and it can be used in a ground to ground, ballistic trajectory.

00;36;58;14 - 00;37;38;24

Phillip Karber

In fact, it's been used considerably in, in Ukraine. The and when you look at these numbers, over 3000 Iskander missiles have been fired over 2000 airlines. Here's all, 300 Navy launched caliber. I mean, it's a phenomenal amount. I, I don't know, but I would suspect that if one looked at our

estimates of what their inventory was in back in 2022, our numbers of had them having that many, reserve missiles, would not have been anywhere near that number.

00;37;38;24 - 00;37;44;06

Phillip Karber

Next slide.

00;37;44;09 - 00;38;08;06

Phillip Karber

I was going to go through the Cold War exercises. But time is passing us by. So, I'm just going to summarize just very quickly, one of the key points that Russia has tended to do when they're trying to work out their own military doctrine, not just nuclear, but, but nuclear conventional, particularly in theater.

00;38;08;06 - 00;38;34;12

Phillip Karber

Is this upon exercise of pardon me as West, they were introduced at 69. They had a whole series of Cold War exercises. Then at the end of the Cold War, they went away for 50 years. And, in 1999, Putin had three innovations. One he brought back to support exercise two, he supported the concept of escalate to de-escalate.

00;38;34;15 - 00;38;53;26

Phillip Karber

And I'll describe that brief in a minute. And third, he started rebuilding the Russian army and also trying to modernize it. And the most recent of the support exercises, was this year. And I'll talk about in very briefly next slide.

00;38;53;28 - 00;39;25;23

Phillip Karber

So, in the middle of the support exercise, it is the first exercise in that long list, which was almost exclusively, almost exclusively based around nuclear weapons. Yeah. They had a couple commercial bombing, shows, and some rifle shooting, but even crew even, troops doing normal just, tactical exercises, and usually a large number were in chem bio gear and so forth.

00;39;25;25 - 00;40;00;17

Phillip Karber

One of the things that came about with his nuclearization, and part of the reason, by the way, is, the Russians could only afford to send two brigades for it were usually they would have several armies participating, up to 100,000 men. But they used it as the opportunity to bring nuclear warheads forward into Belarus and integrate the Belarusian military into the Russian military, to the point where they're actually bringing Belerussian Russian troops, to Russia and training them, for the nuclear capable systems.

00;40;00;17 - 00;40;30;26

Phillip Karber

They have, including the Iskander and the S-300. Not to mention the air and the nuclear artillery and, as part of the pod they brought for the new hyper velocity, missile. And you don't see this mention very much or I frankly, I don't remember seeing it at all.

00;40;30;28 - 00;40;58;25

Phillip Karber

We spent the major part of the from 79 to mid-80s, worrying about the SS 20 threat to Europe. And we had lots of stuff we... that led to the deployment of Pershing looking this system is the SS 20 on steroids. And yet we have had hardly any discussion at it's dual capable, in both versions, apparently.

00;40;58;28 - 00;41;14;19

Phillip Karber

It can't have, up to six independently targeted warheads as well. And it was used at least once on Ukraine. Next slide.

00;41;14;21 - 00;41;41;08

Phillip Karber

Russians have been hitting, Ukraine, with massive amounts of drones. It's hard to see the yellow in there is the, the missile firings on the top of the bars. Now, you see, there's a ... exercise which was sandwiched between the, two of the largest, drone usages a couple days before and a couple of days after and along with some other drone funding.

00;41;41;08 - 00;41;50;19

Phillip Karber

Next slide.

00;41;50;22 - 00;42;21;29

Phillip Karber

The, a couple days after supply, and one of the larger, attacks on Ukraine, the Russians launched, over 400 drones. And some of those drones ended up in Poland. There have been various commentators say, oh, well, you know, the Ukrainians are using electronic warfare, so they probably just messed up the guidance and they said they just flew off and ended up in Poland or that it wasn't intentional.

00;42;22;01 - 00;42;52;10

Phillip Karber

It was just an accident. So, I spent quite a bit of time going through this and actually tracking the flight paths in each of them. And what it shows is, this was not a random or an accident. And it wasn't an effect of, the electronic warfare, the, the drones were under live command and actually would maneuver when confronted, for example, in Poland by opposing aircraft.

00;42;52;12 - 00;43;18;19

Phillip Karber

The, they came from, three command centers, on the border with Ukraine. And had individual, flight paths next slide. And we then, by the way, was mixed with caliber, airlines, cruise missiles and... air strikes all in the same and the same day.

00;43;18;22 - 00;43;48;19

Phillip Karber

Next slide. So, when I saw that that was a missile getting an A speed in its capability, I thought so. Well, maybe I had to take a look at NATO's nuclear deterrent. Has changed since the old days when we had 7000 nuclear weapons in Europe. We had them. And, 10 or 15 different types of a delivery systems.

00;43;48;21 - 00;44;13;10

Phillip Karber

Now it's down to, handful of air bases, about 50 aircraft, about, somewhere around 100. I'm not going to argue one way or the other. You could add it, you can double the number. But a relatively small number of forward deployed nuclear weapons and like I said, is essentially the B61.

00;44;13;12 - 00;44;39;08

Phillip Karber

Those bases are, are semi-hard in the sense they have, shelters for the Warriors and some filters for the planes, but they are extremely vulnerable to, to both being suppressed, conventionally or if hit with a preemptive, nuclear weapons or even if not preemptive when you have weapons in the middle of a, of a conflict. Next slide.

00;44;39;11 - 00;44;46;29

Phillip Karber

So, what difference does all these new systems the Russians have been pouring in make?

00;44;47;02 - 00;45;16;28

Phillip Karber

A lot! The extend the air, delivered missiles, a great depth. The movement of more scholars forward and particularly that, long range killer. Next slide. So, I said, just to characterize the difference between NATO's concept of flexible response or graduated deterrence, and you go, we were trying to defend conventionally. If that failed, we were going to initiate nuclear fire.

00;45;16;28 - 00;46;00;17

Phillip Karber

If they then came back and it got messy, we had deliberate escalation. And in the end, it would go all the way to general nuclear response. Actually, participated in that by the profit with the secretary and the only, simulation of U.S war plans ever conducted by the Secretary of defense and, chairman of the Joint Chiefs and trying to make that strategy work, challenging, and Russia's attitude for it was to try to, to make it difficult for us to do those steps by having a

strong preemptive, conventional front end that would mess up our, the ease by which we could initiate nuclear power.

00;46;00;19 - 00;46;35;21

Phillip Karber

What is, escalated to escalate completely different concept. It's not graduated and it's and it recognizes deterrence for what deterrence is. It is not necessarily just it is not just a material pile of stuff. It's in the mind of the opponent. So, escalate to de-escalate assumes that one can identify the decision, logic of the opponent and target that in some cases, just rally a nuclear weapon may be enough to get people to vote or demonstration strike in some cases.

00;46;35;23 - 00;46;57;15

Phillip Karber

It gives an a bigger, in the as the pot exercise of 1999, the, the Russians played, a use of tactical nuclear weapons, on the battlefield, taking out the visual, bridges for keep NATO from coming to the aid of, the Baltics. And then, just for the hell of it, hit Warsaw with a one megaton warhead.

00;46;57;18 - 00;47;04;03

Phillip Karber

But that was escalate to de-escalate. Next slide.

00;47;04;06 - 00;47;34;10

Phillip Karber

So, this is an apology, a quick run through. We could spend hours going through it. I was more interested in trying to rather than give, reveal truth, rather say, POWs, some decent information to ask, do we have a competitive problem in non strategic nuclear forces. And I'm asking that. So, in a discussion I hope people will not just feel limited to ask a question but could also give their own impression.

00;47;34;13 - 00;47;48;13

Phillip Karber

And the second question is does the NATO alliance then need to do something? And of course, and if that's the question, what are the options and who's going to do it? So, Peter, over to you. I apologize for going over.

00;47;48;15 - 00;48;12;13

Peter Huessy

Oh, no, that's fine. That was wonderfully done. I have a question from Bob Wagner, and I'll read it to you. What is standard Russian doctrine for tactical nuclear employment on the battlefield? And does that doctrine account for a positional fight, if not, know how to...

00;48;12;15 - 00;48;14;19

Peter Huessy

Go ahead and just answer that one.

00;48;14;21 - 00;48;18;10

Phillip Karber

Okay. I'm sorry. You can just repeat it?

00;48;18;12 - 00;48;41;06

Peter Huessy

Yeah, I'm Wagner said what is standard Russian doctrine? For tactical nuclear employment on the battlefield. And does that doctrine account for a positional fight? It's not. Do we know how it's been adapted, or can we at least make an educated guess for positional warfare in Ukraine, or, say, in a protracted fight with NATO?

00;48;41;08 - 00;49;14;01

Phillip Karber

Right. Yes. So they work backwards? Yes, they do, treated nuclear artillery in particular as a weapon for positional fight. In fact, when they first put that field that, that, that 240 millimeter more, it was essentially designed to mess up positional to be a game changer for positional battle.

00;49;14;04 - 00;49;54;04

Phillip Karber

And they felt that having, and has radiation hurt the defender in a prepared defenses more than it did for an armored forces, who were protected and secondly, who were moving. The concept. So, after the end of the Cold War, the Russians for the between 91 and, actually goes with, Alice Aspin when he was, chairman of the House Armed Services Committee, on the first his first trip to Moscow, in that capacity and in the right is where at the end of the Cold War.

00;49;54;07 - 00;50;23;17

Phillip Karber

And so, the Russians offered to, the General Staff got me, actually walked me through some of their exercises, and they basically, at that point did take a NATO's doctrine and flipped it around. They were going to try and defend conventionally. If they couldn't, then we felt outnumbered against NATO because their army had dropped from 5 million to 1 million, or their military, they were going to use nuclear weapons to offset their conventional, shortage.

00;50;23;20 - 00;50;54;23

Phillip Karber

What changes in and, and 99 is the idea of adding a coercive element to, to no, to nuclear possession as well as nuclear use. And, and that can generally be associated with, with Putin. It's interesting when the Russians went into to Crimea and 2014 is not generally known. They put their bombers on alert.

00;50;54;25 - 00;51;33;11

Phillip Karber

The, when in 2017, upon they were playing conventional and they played, a U.S. global strike coming in to, try and save the Baltics. And Putin was on TV pushing the button with a smile on his face. And, okay, we're going nuclear. So that he I don't like the word doctrine in a, in a doctrinaire sense, they have, I believe, a number of contingencies in which they can, see using nuclear weapons.

00;51;33;14 - 00;52;02;19

Phillip Karber

And just because they have them on a wide variety of platforms, probably have, a wider range of, of contingency would use, I wouldn't get locked into. Oh, yeah. Yes, they do or No, they don't. They're certainly aware of... one of the things that back end as opposed to 81. Their concept was in with the operation maneuver group was to hit NATO before its forces were prepared in positional positions.

00;52;02;21 - 00;52;23;26

Phillip Karber

Hit the north and hit the south and avoid the two U.S. quarters in the middle. And try to get as deep as possible early under the argument in NATO, we didn't have trouble firing nuclear weapons in his own rear area. And it would actually increase their own survivability. So, they've been playing with a number of issues.

00;52;23;28 - 00;52;29;08

Phillip Karber

I hope that, we'll address it.

00;52;29;11 - 00;53;02;18

Peter Huessy

You know, Phil, I've been on the question. What role did Yeltsin's decree of April 1999 play in the escalate to de-escalate formulation because he said, developed me battlefield nuclear weapons that are small, accurate, low yield, that I obviously can use on the battlefield, which is often I find, almost no reference to it in the arms control literature and in the literature about Russian doctrine.

00;53;02;21 - 00;53;28;20

Peter Huessy

People have come back at General Hyten others. Brad Roberts, for example, that talked about either escalate to de-escalate or escalate to when they're talking about the same thing. And they were criticized for saying, oh, no, no, the Russians have not ever adapted anything like that. But the 1999 decree and what Mr. Putin did after he took over, it seems to indicate very strongly that this is exactly what they've done.

00;53;28;22 - 00;54;00;24

Phillip Karber

So what's interesting about 99 is, I think the evidence is that that, Yeltsin, by the way, this canard

about, oh, NATO enlargement, threatening Russia, NATO did not do any, any major exercises. We had the counterterrorism exercises in the East, and he did a medical exercise. The whole idea of enlargement was to, two things.

00;54;00;24 - 00;54;24;03

Phillip Karber

One is, is, get to East Europeans thinking, particularly mid-level, diplomats and military, well, more, in line with the West. And secondly, they had these huge, bloated, the amount of military equipment in Eastern Europe between the end of the Cold War in 1999 went down by two thirds, and there were no new extra offensive exercises.

00;54;24;06 - 00;54;57;10

Phillip Karber

But Putin was getting he wanted to keep, troops in and, along the Baltic coast in the Baltic, republics. And Clinton was, but he felt Clinton was pushing him around and forcing him to get rid. I think that move the air defense cited so Army so when he promote, he moves, Putin from head of the security service to the chairman of the National Security Council.

00;54;57;13 - 00;55;21;18

Phillip Karber

That's in the spring of 99. So, Putin's, innovations, don't start with him. With him being president, they start in in the spring. And so. Okay, well, when is when does the escalation de-escalate? Published in the, in and when is that, in ... the summer of, 99, what are they doing the summer 90?

00;55;21;20 - 00;55;32;27

Phillip Karber

They're getting ready for his pod. 99. And that fall, what are they doing? Is one I mean, their plan escalated to escalate.

00;55;32;29 - 00;55;58;26

Peter Huessy

Another question again from, my friend, my president here, Jim Petrosky. What plans does NATO have to the, you know, of that would, in fact use nuclear forces in response to a Russian use of nuclear forces. Have we even thought about that. Or is it basically, it's up to you, the United States, you figure it out.

00;55;58;28 - 00;56;29;15

Phillip Karber

So I had a little comment, and one of the slides, there you go. NATO has not changed. The NATO adopted flexible response. The military Committee, 14 slash 3 in 1967. We have not had... so the beginning of the Cold War, we had MC-1 mid-fifties we had MC-2 and... whereas we have not changed it since.

00;56;29;17 - 00;56;56;04

Phillip Karber

Now, you could argue. Oh, well, we're being flexible. As flexible as what? We're going to be flexible. But our nuclear thinking in the in the height of the latter half of the Cold War was caught up on the on the horns of the dilemma of our first use. We really haven't given lots of thought, in my opinion, to their first use.

00;56;56;06 - 00;56;59;00

Peter Huessy

No, hear you.

00;56;59;03 - 00;57;21;10

Phillip Karber

Now, I'm sure, General... is a good friend of mine and he was even going to try and, join us today. I'm sure that's any number of secretaries. Oh, well, we had a blast. I have no doubt that the... has thought of a lot of different contingencies. But as an alliance, as a document.

00;57;21;10 - 00;57;35;19

Phillip Karber

And what you can get the alliance to agree on, we're still living with, with flexible response and buried in flexible response, is the assumption of us having first use.

00;57;35;22 - 00;57;37;01

Peter Huessy

Nuclear weapons.

00;57;37;03 - 00;57;38;13

Speaker 2

To go to weapons.

00;57;38;15 - 00;57;39;14

Peter Huessy

Theater or otherwise.

00;57;39;14 - 00;57;43;07

Phillip Karber

And us having the option of deliberate escalation, not responding.

00;57;43;07 - 00;57;46;24

Peter Huessy

Yeah, exactly.

00;57;46;26 - 00;58;06;27

Phillip Karber

And I think it's time we rethink it. It is in some, some ways it's an advantage because if we don't have to carry around the onus load, oh, we're gonna have to initiate nuclear fire. Well, it's a lot easier to design a force to inhibit or to deal with, the other side taking an issue.

00;58;07;00 - 00;58;14;12

Phillip Karber

But you damn well better not have that force be vulnerable. And, an invitation to preemption.

00;58;14;14 - 00;58;53;12

Peter Huessy

Exactly. There in the current defense bill, there's money for developing the Navy launch cruise missile, but wouldn't be nuclear armed. And there's also discussion of putting long range strike capabilities. And board are theater aircraft in your view are either needed and if developed would they significantly help? Whether you call it deterrence or whether you call it inhibition?

00;58;53;14 - 00;59;00;06

Peter Huessy

Keep Russia from, God forbid, using nuclear weapons in the theater.

00;59;00;08 - 00;59;04;14

Phillip Karber

Well.

00;59;04;16 - 00;59;33;10

Phillip Karber

Almost anything's better than supplementing what we have now with almost anything. It's better than the not doing anything. I purposely didn't put Kaber's list on a I give you because I really wanted to foster if we don't do it today. But get people thinking about what our options are. The submarines and survivability and with, cruise missiles.

00;59;33;13 - 01;00;05;20

Phillip Karber

The, it can add a lot to, in the defense guidance, or, the Nuclear Posture Review, you I think it was in the last year's the election of Obama early, Trump there was a proposal to have a look at our, submarines, by the way, which our, our arms control community had vehemently, argued against.

01;00;05;22 - 01;00;33;08

Phillip Karber

Not a bad idea. Is there a conventional is there a conventional alternative to nukes? Yes and no. Yes. There are things that long range precision strike can do. But if you look at that, that, escalate to de-escalate, the Russian side of that comparison, there's a little line in there goes this is their quote.

01;00;33;10 - 01;00;49;01

Phillip Karber

The new revolution in military affairs is the combination of low yield nuclear weapons with long range precision strike.

01;00;49;03 - 01;00;51;28

Peter Huessy

Long range precision strike that is nuclear capable.

01;00;52;06 - 01;01;26;20

Phillip Karber

Right. Okay. What's interesting is, by the way, I've been looking at why the Russians have been so ineffective with all those...it's, and I think the reason is that those systems were designed for a small nuclear weapon. So, you know, the difference between hitting a supermarket and hitting, a command control point, may only be a 100 yards.

01;01;26;22 - 01;01;58;09

Phillip Karber

So, we see them come in and we go, what are they doing hitting a nursery school or a gym? But I suspect that their own accuracy, for whatever reason, whether it's for targeting, whether it's, ... , but I think, they were using, low yield to offset that, that the accuracy phenomenon, because they should have had a hell of a lot more impact on Ukraine than they had.

01;01;58;09 - 01;02;04;13

Phillip Karber

I mean, you know, it's taking its toll. But for all those fat fellows heads.

01;02;04;16 - 01;02;26;27

Peter Huessy

Well, Phil, thank you. It's 1103 with a couple minutes over, I want to turn it over to either Jim Petrosky, our president. If he has something you'd like to say, or Kimberly, to say goodbye. Phil, this is an extraordinary amount of information. I hope you can share your slides with us because I just a huge amount of information, some of it extraordinary.

01;02;26;29 - 01;02;40;26

Peter Huessy

Very useful. I don't want to thank you for you and the Potomac Foundation for taking the time out of your schedule to come in and talking to us. And, Kimberly, over to you and our president, if Jim is around, wants to say something.

01;02;40;29 - 01;03;17;04

Kimberly Cherington

Well, thank you. A special thank you to you, Doctor Karber, we really appreciate this time and helping us understand these important topics and bring them to a broader audience here at NIDS.

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01;03;17;06 - 01;03;43;14

Kimberly Cherington

Looking ahead, I mentioned earlier to mark your calendars for Dr. Don Cook will be addressing strategic stockpile stewardship in two weeks on Friday, so you can register for that. We have a full lineup of events and speakers each week all through this fall and winter, so be sure that you and your colleagues are on that invitation list by emailing us at NIDS@thinkdeterrence.com.

01;03;43;14 - 01;04;07;14

Kimberly Cherington

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01;04;07;17 - 01;04;08;16

Phillip Karber

Thank you, thank you.

01;04;08;23 - 01;04;13;02

Peter Huessy

Thank you Phil. And thank you, Kimberly. Take care.