

National Institute for Deterrence Studies & Peter Huessy Seminar

**Strategic Imperatives: Augmenting Theater Nuclear Forces for 21st Century
Deterrence with Greg Weaver**

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Webinar Transcript

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Abstract

This seminar, hosted by the National Institute for Deterrence Studies (NIDS), explores the strategic necessity of augmenting U.S. theater nuclear forces in response to the emerging two-peer nuclear threat posed by Russia and China. Greg Weaver, Principal of Strategy to Plans LLC and former Deputy Director for Strategic Stability on the Joint Chiefs of Staff, outlines two core challenges: deterring adversary limited nuclear escalation and compensating for potential conventional inferiority in simultaneous or sequential conflicts.

Weaver argues that current U.S. theater nuclear capabilities are insufficient to support a flexible response strategy and proposes a force structure that includes dual-capable aircraft, sea-launched cruise missiles, and ground-launched systems. He emphasizes the importance of survivability, forward deployment, and operational flexibility in future systems. The seminar also addresses allied concerns, public perception, and the limitations of conventional prompt strike alternatives.

Interactive discussions with James Petrosky and other participants highlight production constraints at the National Nuclear Security Administration (NNSA), the strategic implications of arms control compliance, and the evolving geopolitical landscape. The session concludes with a call for urgent investment in both nuclear capabilities and industrial capacity to ensure credible deterrence in a rapidly shifting global security environment.

Executive Summary

On September 26, 2025, the National Institute for Deterrence Studies (NIDS) hosted a virtual Huessy Seminar featuring Greg Weaver, Principal of Strategy to Plans LLC and former Deputy Director for Strategic Stability on the Joint Chiefs of Staff. The seminar, introduced by Kimberly Cherington and moderated by Peter Huessy, addressed the urgent need to augment U.S. theater nuclear forces in preparation for a two-peer nuclear threat environment involving Russia and China.

Weaver identified two strategic challenges: (1) deterring adversary limited nuclear escalation, and (2) compensating for potential conventional inferiority in simultaneous or sequential conflicts. He argued that current U.S. theater nuclear capabilities are insufficient to support a flexible response strategy and outlined a proposed force structure that includes dual-capable aircraft, sea-launched cruise missiles, and ground-launched systems with attributes such as survivability, forward deployment, and operational flexibility.

The seminar featured a robust Q&A session led by James Petrosky, where Weaver addressed concerns about allied perceptions, production constraints at the National Nuclear Security Administration (NNSA), and the limitations of conventional prompt strike alternatives. He emphasized the importance of restoring deterrence credibility and maintaining strategic posture through enhanced nuclear capabilities.

The session concluded with reflections on arms control, particularly Russia's non-compliance with New START, and the need for a concerted wargaming campaign to determine optimal force requirements. The seminar underscored the strategic imperative of preparing for a rapidly evolving global security landscape and the critical role of theater nuclear forces in maintaining deterrence.

Unabridged Transcript

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

00;00;07;23 - 00;00;52;13

Kimberly Cherington

Good morning, everyone. I'm Kimberly Cherington and, on behalf of the National Institute for Deterrence Studies or NIDS, I want to welcome you to today's Huessy Seminar, ***Strategic Imperatives; Augmenting Theater Nuclear Forces for the 21st Century Deterrence*** with Mr. Greg Weaver. Mr. Weaver is the principal of Strategy to Plans, LLC. Prior to this, he was deputy director of Strategic Stability on the Joint Chiefs of Staff Directorate for Strategic Plans and

Policy G5, where he was responsible for the formulation, the Joint Chiefs positions and recommendations regarding strategic deterrence and nuclear policy.

00;00;52;16 - 00;01;08;15

Kimberly Cherington

We welcome him here today and next Friday, we have *European Perspectives on China and its Nuclear Buildup*, with Dr. Max Howe from the Center for Global Security at Lawrence Livermore National Lab.

00;01;08;15 - 00;01;42;26

Kimberly Cherington

We welcome you to today's presentation to put your questions in the chat as our speaker talks. And later during the Q&A portion of the talk, we will address those. You can also put your questions in the Q&A button at the top of the screen. Now it's my pleasure to introduce our host for today's Huessy seminar, the distinguished Mr. Peter Huessy, president and Senior Director of Strategic Deterrence Studies at Geo Strategic Analysis and a senior fellow here at NIDS.

00;01;42;28 - 00;01;45;25

Kimberly Cherington

Peter, welcome.

00;01;45;27 - 00;02;20;00

Peter Huessy

Thank you very much, Kimberly, and honor to welcome our president. Jim Petrosky, who so joining us today and of course, our guest, Weaver, the reason I have asked Greg to address the following issue is that whatever conference you may attend in this town or virtual about nuclear deterrence, it almost inevitably comes down to an area identified by the 2023 Posture Commission report, where they thought we had a real gap, and that gap is an extended deterrence.

00;02;20;00 - 00;02;44;06

Peter Huessy

And the theater level or theater in nuclear weapons. And I know there are people who think there really isn't any difference between a theater nuclear weapon and a strategic nuclear weapon, that a nuclear weapon is a nuclear weapon. And if used, you can't keep it limited any kind of a strike. And that you end up as any Jacobson says, into all out clear or going to the Armageddon option.

00;02;44;08 - 00;03;11;13

Peter Huessy

And my point is that we may think that fighting a nuclear war is futile. We may even think it's not possible, but that's not what's important to deter. We have bad guys, the Chinese and the Russians and perhaps the North Koreans. You would include, they think, the use of nuclear weapons for coercive purposes, as the 2023 Posture Commission said, they believe that is their that's their strategy.

00;03;11;16 - 00;03;15;04

Peter Huessy

And whether or not it's bluff or not that.

00;03;17;23 - 00;03;42;14

Peter Huessy

Could be up. Goodness, I think Greg would agree probably 36 or 48 times, depending on how you want to count, threaten the use of such weapons. If we did X, Y, or Z and Ukraine and I think we have to take this seriously, and therefore that's what I've asked Greg to address. Today, I want to thank you, sir, for coming on and joining us today.

00;03;42;16 - 00;03;53;18

Peter Huessy

A transcript will be available of these remarks as well as your video. And I want to thank you, Greg, again for joining us today. So, over to you, sir.

00;03;53;21 - 00;04;30;24

Greg Weaver

Well, thank you, Kimberly, for that gracious introduction. And thank you, Peter, for all you do for the community by running these seminars. There are real service, people in government, pay attention to the forums that you put forward and, and, and I just want to thank you and NIDS for allowing me to share my views with you today regarding what I have been calling the urgent imperative of augmenting U.S. theater nuclear forces in the face of the impending two nuclear threat.

00;04;30;27 - 00;04;54;28

Greg Weaver

So, I'm going to talk, maybe 25 minutes. We'll see if it is as short as I did when I timed it. And then I'm really interested in having a conversation with all the participants in the seminar. So let me get started. The two peer threat environment that is impending, it'll arrive somewhere in the mid-2030s.

00;04;55;00 - 00;05;21;09

Greg Weaver

It's going to pose two key challenges to the United States and our allies that affect the nuclear forces that the United States will need to deter armed aggression, deter limited nuclear escalation, and counter limited nuclear aggression in a way that allows us to achieve our war aims. Should deterrence fail, all while deterring large scale nuclear escalation. So that's a tall order.

00;05;21;12 - 00;05;51;23

Greg Weaver

Today I hope to convince you that addressing the threat of adversary limited nuclear escalation is

the single most pressing problem facing not only U.S nuclear strategy but arguably facing U.S. military strategy. To address the two-peer threat environment that we're about to enter. And I also hope to convince you that augmenting U.S theater nuclear forces for that upcoming, two-year threat environment is an urgent imperative.

00;05;51;25 - 00;06;18;27

Greg Weaver

I'm going to first address those two key challenges of the two-peer threat, and then I'm going to briefly address key aspects of the threats posed by Russia and China individually. And then I'm going to outline for you my thoughts on the attributes that future theaters, U.S. theater nuclear forces need to have to successfully deter limited nuclear escalation and to counter adversary limited nuclear escalation if deterrence fails.

00;06;18;29 - 00;06;50;11

Greg Weaver

And finally, I'm going to provide you with my recommendations for the set of theater nuclear forces, that we're going to need in the future. So let me start with the two key challenges of the two-peer threat. The two nuclear peer threat environment is going to pose a singular challenge to the United States and its allies and partners in Europe, in the Indo-Pacific, deterring or defeating simultaneous or sequential two theater aggression by two nuclear peer adversaries, Russia and China.

00;06;50;13 - 00;07;30;23

Greg Weaver

This two-theater war threat could manifest as a collaborative effort, i.e. Russia and China launch attacks in concert as a plan, or as an opportunistic sequence. One major power adversary attack first, and the other exploits the situation by launching aggression only after the United States is fully committed to the initial conflict. Both those pose pretty significant challenges, and there are different challenges, regarding the potential role of U.S. theater and nuclear forces in U.S. ally and allied strategy, these scenarios pose two dire threats to the ability of the United States and its allies to deter defeat.

00;07;30;23 - 00;08;01;07

Greg Weaver

Such aggression. The first is the threat of adversary limited nuclear escalation. If we don't address that threat effectively, it could lead either to war termination on the adversaries' terms or to escalation to a large-scale nuclear war with existential consequences for the United States. And the second is the risk of U.S. and allied conventional defeat in one or both theaters due to an inability to fight and win two major power conventional war simultaneously.

00;08;01;09 - 00;08;27;03

Greg Weaver

So let me first go into a little more detail about the problem of adversary limited nuclear escalation. So why might an adversary resort to the limited first use of nuclear weapons in a

theater conflict with the United States and its allies, and given the potential for adversary limited nuclear use, what will it take for the U.S. and its allies to deter such escalation, if possible, and to counter it if necessary?

00;08;27;05 - 00;08;58;14

Greg Weaver

Adversaries might initiate limited nuclear use to secure victory, to stave off defeat by coercing us to terminate a conflict on terms they can accept, or to prevent defeat by rendering U.S. and allied conventional forces incapable of achieving our objectives. In that context, the core requirement for deterring adversary limited nuclear escalation in the two-peer environment is I believe, a credible, flexible response strategy, the same strategy we used in the Cold War.

00;08;58;16 - 00;09;32;16

Greg Weaver

Slightly different, but pretty much the same, but modified in terms of the capabilities required to make that strategy effective. Such a flexible response strategy must convince adversary leaderships that limited nuclear escalation does not provide effective insurance against misjudging U.S. and allied resolve and cohesion. It must also demonstrate that limited nuclear use will not result in war termination on the adversary's terms, and that it entails a significant risk of uncontrolled escalation.

00;09;32;19 - 00;10;16;14

Greg Weaver

This risk arises because the United States and its allies are visibly prepared for what Thomas Schelling described as a competition and risk taking to defend their vital interests. So, such a flexible response strategy must be enabled by U.S. and allied nuclear and conventional forces. Then, in my opinion, need to be able to accomplish three key objectives. The first is to provide a robust range of response options to restore deterrence by convincing the adversaries leadership that it is miscalculated in a dire way, that further nuclear use will not allow them to achieve their objectives, and that they will incur costs that far exceed any potential benefits they can achieve.

00;10;16;17 - 00;10;51;21

Greg Weaver

In the process that the second key objective is to be able to counter the military impact of adversary limited nuclear use on the course of the theater campaign. And the third is to be able to continue to operate effectively to achieve U.S. and allied objectives in a limited nuclear use environment. So, in some U.S. and allied strategy and capabilities must convince potential adversaries Moscow and Beijing that nuclear escalation is always their worst option under any condition.

00;10;51;23 - 00;11;20;13

Greg Weaver

Deterring and countering adversary limited nuclear use must be a critical linchpin of U.S. nuclear strategy. In the coming two-year environment. Deterring limited nuclear use contributes to

detering conventional aggression and prevents escalation to limited and unlimited nuclear war. Countering limited use has the potential to restore deterrence, as I said before, thus preventing further escalation, and ensures that the United States and its allies can achieve our defensive war aims.

00;11;20;13 - 00;12;04;19

Greg Weaver

Despite adversary escalation. In my view, and this is the crux of the problem. And the crux of the urgency that I'm intending exists. Current U.S theater nuclear forces do not have the capabilities necessary to enable an effective, flexible response strategy in both theaters with high confidence planned U.S theater and nuclear forces as opposed to current ones. And what I mean by that is with the addition of slit command, we'll provide more confidence but will still lack some key attributes that would provide the president a more complete set of response options and additional confidence in both our ability to deter and to counter limited escalation.

00;12;04;21 - 00;12;39;18

Greg Weaver

So that's the limited escalation is the first problem. And that's kind of my outline of what that problem looks like. Now I'm going to shift to what the second potential problem is in the two-peer environment. And that is the potential need to compensate for U.S. and allied conventional inferiority, with nuclear weapons. So, the second key threat posed in the two-peer environment is the possibility that U.S. forces may be able, unable to fight and win two major power conflicts simultaneously.

00;12;39;20 - 00;13;20;09

Greg Weaver

The Congressional Strategic Posture Commission noted that the current U.S. defense strategy, quote, reflects a one major war sizing construct that is sufficient to deter the that is sufficient to deter opportunistic and collaborative two theater aggression today. But we'll fall short in the 2027 to 2035 timeframe, unquote. And in perhaps one of its least noted recommendations, the commission found that, quote, the objectives of U.S. strategy must include effective deterrence and defeat of simultaneous Russian and Chinese aggression in Europe and Asia using conventional forces.

00;13;20;12 - 00;14;05;15

Greg Weaver

If the United States and its allies and partners do not field sufficient conventional forces to achieve this objective, U.S. strategy would need to be altered to increase reliance on nuclear weapons to deter or counter opportunistic or collaborative aggression in the other theater. I think that most of the focus on the Posture Commission's recommendations were on the capability requirements that are identified, but this finding is just as important as those, so maintaining conventional superiority over both major power adversary simultaneously is obviously the preferable approach.

00;14;05;18 - 00;14;31;18

Greg Weaver

Over increasing reliance on nuclear weapons. However, achieving this is likely to be very expensive, requiring the U.S. and its allies to significantly increase and optimize their defense spending. It's far from certain that such a decision will be made and implemented by us and our allies, and rumors about the content of the soon to be released National Defense Strategy indicate that we are not likely to do so.

00;14;31;21 - 00;15;05;19

Greg Weaver

If the US decides instead to increase reliance on nuclear weapons to compensate for potential conventional inferiority in a second major theater war, the resulting nuclear mission would be far more demanding than merely deterring or countering adversary limited nuclear escalation, which is already a formidable challenge. In that circumstance, the United States would need to make it clear that it was willing to initiate nuclear weapons used to defeat adversary conventional aggression and would have to field the theater nuclear forces necessary to make such a threat credible.

00;15;05;22 - 00;15;40;15

Greg Weaver

Such a force would require significantly more theater weapons and additional delivery options to hold at risk the full range of adversary conventional forces needed to ensure their defeat. With confidence, and I believe that an analytic operational level wargaming campaign is needed if we, are going to fully understand the theater nuclear force needed to enable that strategy of compensating for conventional inferiority with nuclear weapons, we had that strategy in the Cold War.

00;15;40;17 - 00;16;18;22

Greg Weaver

But everything we learned about implementing that strategy in the Cold War is questionably relevant to the way we would fight a modern theater war, the way we and the Russians, for example, plan to fight in Central Europe in 1985 is nothing like either side. Plans to fight today. So, a shift to relying more on nuclear weapons to compensate for conventional inferiority would be a dramatic change in U.S strategy, right?

00;16;18;25 - 00;16;56;11

Greg Weaver

That reliance on nuclear weapons to compensate for conventional inferiority seems to be an element of U.S nuclear strategy at the end of the Cold War. And at that time, the U.S unilaterally eliminated almost all its theater nuclear forces because they were no longer needed for our strategy. So, the challenge of compensating for conventional inferiority with nuclear weapons, in my opinion, is more difficult in Europe than in Asia, largely due to Russia's large existing advantage in theater, nuclear forces, and the nature of a potential conflict in the two theaters.

00;16;56;13 - 00;17;41;01

Greg Weaver

It might be possible to ensure conventional superiority in Europe if it is the second theater of war, while relying on nuclear weapons to counter Chinese conventional superiority in a second theater conflict in Asia. Achieving this, however, would require a politically sensitive conversation within NATO about how to optimize the alliance's conventional warfighting capability. If the United States is additionally engaged in a major conflict in Asia, and with the administration's seeming willingness to turn to focus on China, the current administration and leave the NATO allies to deal with their own conventional problem to a large extent, this just doesn't look like the direction we're headed.

00;17;41;04 - 00;18;07;19

Greg Weaver

So now, let me, before turning to the attributes that our future theater force requires, it's important to look a little more closely at the unique nature of future Russian and Chinese threats. So first, the Russians, before addressing the role of nuclear forces in Russian strategy and doctrine, I think it's important to remind ourselves about perhaps the single most important lesson we should draw from the invasion of Ukraine.

00;18;07;24 - 00;18;34;04

Greg Weaver

And that's this, that the Putin regime has demonstrated a propensity to take the risk of large-scale military aggression in pursuit of its objectives, and a propensity to miscalculate in a dire way. In the course of doing so, we have to keep those two propensities in mind when determining the importance of being able to deter and counter Russian limited nuclear use with high confidence.

00;18;34;06 - 00;19;01;15

Greg Weaver

Russian strategy and doctrine are rooted in the belief that limited nuclear use in a theater conflict is unlikely to result in uncontrolled escalation to a large scale, homeland to homeland nuclear exchange. Otherwise, their strategy makes no sense. And while the extent of Russian leaders' confidence in this belief remains unclear, their strategy and doctrine explicitly call for limited nuclear escalation, if necessary, to achieve two potential objectives.

00;19;01;17 - 00;19;28;02

Greg Weaver

The first is to coerce or termination on terms acceptable to Russia, and if it is decisively losing a conventional war, and the second is to defeat superior NATO conventional forces with wider scale theater and nuclear use. If coercion fails to terminate the war. The latter objective is what's is what drives Russia's perceived force requirement for very large theater and nuclear forces embedded throughout Moscow's conventional forces.

00;19;28;05 - 00;19;55;26

Greg Weaver

And, you know, unclassified estimates are in the range of 2000 warheads embedded throughout the Russian conventional forces. Regarding the coercive escalation option to compel termination of an ongoing conventional war on terms acceptable to Russia, NATO must ask itself, well, what might constitute such extreme double terms for the Kremlin? Before the war in Ukraine, this option was most often understood to mean coercive escalation.

00;19;55;26 - 00;20;27;02

Greg Weaver

To avoid impending conventional defeat by superior NATO forces. However, Russia's likely increased reliance on nuclear weapons posed to Ukraine could mean coercive escalation could be used in pursuit of victory as well. Russian theater nuclear capabilities are designed to implement both the coercive and the defeat option of their strategy. They constitute the one area of the military balance with NATO, in which Russia has a clear advantage today and a potentially growing advantage in the future.

00;20;27;02 - 00;21;01;00

Greg Weaver

If we don't take steps to rectify that, their nuclear theater nuclear advantage is not only quantitative, it has what Russia has a far more diverse range of theater, nuclear systems and nuclear strike options at their disposal. And their theater nuclear systems and operations are better integrated with their conventional forces. That is the case with NATO, Russia's theater nuclear forces, in a nutshell, are designed to be militarily effective in a theater conflict against NATO in the service of their strategy.

00;21;01;02 - 00;21;27;03

Greg Weaver

And in my opinion, our theater nuclear forces today are not. Now, let me shift quickly to China. There's less to say there because we know less about what the Chinese are doing and thinking. Chinese strategy and doctrine regarding the role of limited nuclear escalation remains profoundly uncertain. China has not been transparent about either the need for or the purpose of its large-scale nuclear buildup.

00;21;27;05 - 00;22;00;10

Greg Weaver

However, the nature and scale of this buildup likely indicates an ongoing change in Chinese nuclear strategy, as the US nuclear force modernization plans have not significantly increased the threat to China or its existing nuclear deterrent. In any significant way. It's possible that China plans to abandon its declared no first use policy, likely covertly, and adopt a strategy similar to Russia's, envisioning both potential coercive use and limited war fighting to avoid defeat or secure victory.

00;22;00;13 - 00;22;33;03

Greg Weaver

Regardless of their current strategic intent, the Chinese are building far more capable and

numerous theater nuclear strike capabilities that threaten U.S. forces and allied homelands in the Indo-Pacific region. So, let me shift now to what I think the required theater nuclear force attributes are given the threat that I've just spent some time outlining for you, given the limitations of current US theater and strategic nuclear forces, the question is, what are the optimal attributes of an augmented US theater nuclear force?

00;22;33;03 - 00;22;58;03

Greg Weaver

To address the problems that I have just described, two key recent studies offered considered to be a partial answer to this question. The Congressional Strategic Posture Commission made the following recommendations, quote, develop and deploy theater nuclear delivery systems that have some or all the following attributes. Forward deployed or deployable in the European and Asian Pacific theaters.

00;22;58;05 - 00;23;39;12

Greg Weaver

Survivable against preemptive attack without force. Generation day to day a range of explosive yield options, including low yield options, capable of penetrating advanced integrated air and missile defenses with high confidence and operationally relevant weapon delivery timelines. And the two peer study by Lawrence Livermore Center for Global Security Research made this recommendation regarding theater force attributes. Quote, from a military perspective, U.S. extended nuclear deterrence capability should one be survivable even in an anti-access area denial environment, to provide an option for prompt response?

00;23;39;14 - 00;24;08;12

Greg Weaver

Three hold at risk different types of adversary targets to maximize to maximum operational effect in a wide range of contingencies, and for not constrain or limit US strategic second-strike capability. And then they. That report went on to say that from a political perspective, these capabilities should one provide an understanding for persistent in theater presence to be visible, to provide an option of demonstrating American robust resolve?

00;24;08;14 - 00;24;39;22

Greg Weaver

Three provides an option for allied burden sharing and signaling, and for be politically acceptable. Acceptable to allies. So, I think these recommendations are both sound and, of course, very similar. However, for the purpose of examining a set of specific alternative theater nuclear systems to augment U.S. theater nuclear capability, I think they lack sufficient operational detail. And so, I developed a more detailed set of attributes for the future U.S. theater nuclear force.

00;24;39;25 - 00;25;16;07

Greg Weaver

And let me briefly present what those are to you. Note that the attributes I'm about to list aren't

listed in priority order. I view them all as essential to being able to deal with both the threat of limited nuclear escalation and then potentially the need to compensate for conventional inferiority. So the first attribute is survivable without lengthy force generation hours, not days, need to be able to generate that force to a survivable posture in hours, not days.

00;25;16;10 - 00;25;51;20

Greg Weaver

Second forward deployed continuously in both Europe and Asia. Both the other report's recommendations about forward deployment were forward deployed or deployable. I believe these systems need to be continuously deployed forward to have the desired deterrent effect and operate and ensure their operational availability. Third, our theater forces must have warheads that have not only a range of explosive yield, including low yield options, but also a range of fusing options to maximize their operational flexibility.

00;25;51;23 - 00;26;14;26

Greg Weaver

Fourth, they need to be deliverable on operationally relevant timelines. And what I mean by operationally relevant timeline is this it's a distinction from saying they need to be prompt, right. So, the system needs to be able to deliver a weapon on target within sufficient time to meet the operational or strategic objective that the strike is intended to achieve.

00;26;14;29 - 00;26;40;03

Greg Weaver

Sometimes that might mean hours, sometimes it might mean minutes. It depends on what the directive is. Fifth, they need to be effective against the full range of likely targets necessary to enable US strategy. And sixth, they need to be able to enhance the nation's technical hedge capability and contribute to meeting increased strategic nuclear targeting requirements.

00;26;40;09 - 00;27;01;09

Greg Weaver

So let me explain that a little bit because that requires a little more explanation. So one of the issues, the other issue we're having in nuclear strategy and capability in the two-peer environment is that we're likely to have to increase the size of the strategic nuclear force, to be able to cover with our current strategy, both Russia and China simultaneously.

00;27;01;12 - 00;27;25;24

Greg Weaver

To be able to do that in the near term, we're going to have to upload existing systems with warheads that are held in reserve, that are that currently constitute the nation's technical capability. The capability to field more of a specific warhead type to compensate for maybe having a technical problem with another warhead type in the force.

00;27;25;26 - 00;27;51;00

Greg Weaver

The problem that we face in the near term is if we deploy our technical hedge to simply have enough weapons to support our strategy, we no longer have a technical hedge. And so, one thing theater forces with the right attributes can contribute is an ability to enhance the technical hedge capability by being able to use theater forces to meet some of our strategic nuclear force requirements.

00;27;51;02 - 00;28;16;01

Greg Weaver

That's a little complicated, but that's what I mean. So now let me turn to the last part of my pitch here, and then we'll have a conversation. And that is what I think. What I recommend you theater, nuclear force structure and posture look like for this two-year threat. So, the first question is, what weapons systems would a force need to include to provide all of the attributes I just outlined.

00;28;16;01 - 00;28;44;25

Greg Weaver

So in a nutshell, I believe the United States should feel the theater nuclear force that combines and effectively dispersal dual capable air aircraft force in Europe with nuclear armed sea launch cruise missiles deployed day to day on attack submarines in both theaters and nuclear armed ground launch cruise missiles and or ground launch ballistic missiles continuously deployed forward in Europe and Asia.

00;28;44;27 - 00;29;12;01

Greg Weaver

Such a force is necessary, I think, because the current U.S. theater nuclear force posture is inadequate in both theaters. The dual capable aircraft in Europe would provide a real operational military capability if they're made survivable through effective dispersal and concealment. But in their current posture, they are vulnerable to a Russian preemptive strike. They are all based in fixed, known locations.

00;29;12;04 - 00;29;34;26

Greg Weaver

Sea launch cruise missiles on attack submarines fill much, but not all, of the gap in the current U.S. posture in both theaters. They provide they would provide all of the attributes needed to enhance deterrence of limited nuclear use and to counter such use of deterrence fails. And they would augment the technical hedge and the strategic nuclear force if deployed in sufficient numbers.

00;29;34;28 - 00;30;05;02

Greg Weaver

Ground launch cruise missiles or ground launch ballistic missiles armed with nuclear weapons would further complicate Russian and Chinese escalation calculations, and military planning, while demonstrating the resolve of the United States and its allies to take potentially politically costly action. In response to the increased threats that these adversaries pose, however, the

United States must carefully evaluate whether pursuing the command or Gleiberman deployment would ultimately enhance or undermine alliance unity in Europe or Asia.

00;30;05;02 - 00;30;31;24

Greg Weaver

And it might be the answer might be different in Europe and Asia. Fielding these additional forces would likely hasten the enhanced integration of conventional and nuclear theater operations as the Supreme Headquarters Allied Powers Europe, U.S. European Command, U.S. Indo-Pacific command, and U.S. Forces Korea would have to operate and plan for the operation of and the use of improved theater and nuclear forces of their own.

00;30;31;29 - 00;30;59;18

Greg Weaver

Currently, only U.S. European Command has theater capability. And finally, if the United States and its allies and partners choose not to maintain conventional superiority in both theaters simultaneously, which I tend to think is likely additional theater nuclear capabilities are likely to be required to enable a strategy of compensating for conventional inferiority in a second theater with nuclear weapons.

00;30;59;21 - 00;31;48;15

Greg Weaver

The importance of that choice can't be overstated, in my view. As the Strategic Posture Commission noted, quote, dismissing the possibility of opportunistic or simultaneous to peer aggression because it may seem improbable and not addressing it in U.S. strategy and strategic posture could have the perverse effect of making such aggression more likely, unquote. So, in conclusion, as I noted earlier, I believe determining the theater nuclear force required to enable a strategy that compensates for conventional inferiority in a second theater requires that we do a concerted analytic campaign of wargaming by the Defense Department, particularly to determine the numbers of required theater nuclear systems for that strategy.

00;31;48;17 - 00;31;58;25

Greg Weaver

So let me stop there and thank you for your time and your patience. And I'm looking forward to discussing this issue with all of you. Thanks.

00;31;58;28 - 00;32;10;29

Peter Huessy

Thank you very much, Greg. I'd like to turn it over to our president, Jim Petrosky, who was going to open the chat function and relate to you some of the questions from both himself and from our audience.

00;32;13;10 - 00;32;30;15

James Petrosky

Yeah, thank you very much, Greg. And your, I do like this broad view that you have, in looking

at this problem. I do think that it, you know, I just want to tell you a little context. As I recall, being in the United States Army as an artillery man, and we had that nuclear mission.

00;32;30;22 - 00;33;08;14

James Petrosky

So, I, you know, your touch points about being in the field and being ready to roll is really important because that becomes a deterrent. So, thank you for that. For, for that. So, I have a couple questions that are in our chat function. And a couple I put some we got some thumbs up. Probably the most highlighted one is how do we reconcile the need for theater and nuclear forces with public and allied concerns about nuclear escalation and their perceived ethical use, because it really is a visible thing, not only to our adversaries, which, of course, causes a deterrence, but also it becomes, you know, obviously local, visibility, whether it's like or disliked. And how do we overcome that?

00;33;11;29 - 00;34;04;17

Greg Weaver

Yeah. So that's a great question. So let me start in to answer that question by noting that there has been a profound shift in public opinion regarding the credibility of the threat posed by Russia to NATO allies. Since the invasion of Ukraine. I mean, really profound shift, right? I mean, Germany's rearming, right. And a profound and a continuing shift in perceptions of the Chinese threat in Asia among our allies, the, particularly Japan, the Philippines, Australia, South Korea, and so South Koreans and mostly, I think, driven by the North Korean nuclear threat, are having an open debate about whether to acquire their own nuclear forces.

00;34;04;19 - 00;34;37;17

Greg Weaver

Japan is having a little bit less open debate about that, but they're talking about it, which never would have happened, previously. So, I think the, the, the political ground in which we are operating to pursue the kind of augmentation of our theater, nuclear capability is very different than it was 10 or 15 years ago. I think that that augmentation is perceived as probably needed and necessary in both theaters.

00;34;37;17 - 00;35;05;08

Greg Weaver

Not, of course, by everyone in both theaters. But I would also say that, you know, the purpose of doing what I'm advocating is to prevent nuclear use, not to not to engage in it. Right. But in my view, particularly given the nature of these adversaries and their strategies, you have to demonstrate to them that you're able and willing to act.

00;35;05;11 - 00;35;30;24

Greg Weaver

Effectively, engage in a limited nuclear exchange. If you're going to convince them that nuclear use is always their worst option. So, I think this is, you know, there will be a big public fight, you know, over this in these that some people in these countries, if you proposed deploying more

nuclear weapons on their territory, will object and they'll protest.

00;35;30;24 - 00;36;04;04

Greg Weaver

And, but I think, you know, in Europe, the poles are eager to have nuclear, US nuclear forces on their territory. The Brits just rejoined the dual capable aircraft mission. At least they made the decision to do that, with almost no opposition in the UK to doing that. So, I think I think, you know, people who say, oh, we can't do this because the allies won't participate, I think are probably wrong.

00;36;04;07 - 00;36;26;00

James Petrosky

All right, now, I appreciate that in sort of a somewhat linked, question coming from one of our fellows, James McCue. You seem to believe that the dual capable aircraft survivability and speed the generate is low. Why do you believe that GLCM would be operated differently? And why not simply improve DCA and these respects?

00;36;26;02 - 00;37;02;15

Greg Weaver

Yeah. Okay. Great question. So, a couple of reasons. So first of all, to be absolutely clear, I said that it's currently the DCA capability is currently vulnerable. It's it doesn't have to be. We can develop a concept of operations to disperse those aircraft and hide them. There are hundreds of airfields in Europe that can take F-35 and fly out of there, and we can hide them, but there's some key things we'd need to do, some of which I can't talk about, to make that possible.

00;37;02;18 - 00;37;43;06

Greg Weaver

But we could very readily and very, I think, relatively easily make the DCA force much more survivable. The value of, of SLCM-N is, additive to an improved DCA capability. It provides, first of all, deeper strike capability than fighter aircraft. Do, that enable you to hold a significantly larger, part of the targets that, in Russia or in China, that risk DCA aren't particularly useful in, in Asia because of range limitations and the lack of basing.

00;37;43;09 - 00;38;29;21

Greg Weaver

It would be harder to disperse them in Asia to operationally useful locations. Not impossible, but harder. And the slip command will have a significantly better capability to penetrate adversary air defenses than dual capable aircraft carrying gravity bombs that require the aircraft to not necessarily directly overfly the target, but get very close to the target with the tail kit on the B61 12 bomb, the slip command is just... it's just a much harder air defense problem to address than the F-35 is, the other thing I would note is, you know, slip command has longer range, which gives you more target coverage.

00;38;29;23 - 00;38;59;25

Greg Weaver

And that's usually the only operational factor people think about when you talk about range. But increased range on an air delivered on an air breathing platform also gives you better probability to penetrate. Because if you're not, if the target isn't at the outer edge of your range limitation, you can use that increased range to fly a route that is much better at penetrating air defenses than flying in a straight line.

00;38;59;28 - 00;39;15;24

Greg Weaver

And SLCM-N is capable of doing a tremendous amount of terrain masking, avoiding radars. That increased range gives you a much better probability to penetrate than dual capable aircraft.

00;39;15;26 - 00;39;18;27

James Petrosky

Okay. Yeah. Thank you. Yeah. That's a great answer. You...

00;39;18;27 - 00;39;23;11

Greg Weaver

I'm sorry there was part of that question. I didn't answer the part about GLCM-N...

00;39;24;13 - 00;39;43;10

Greg Weaver

Yeah, yeah. I'm sorry. So, if you had to ground it, let's just use the con op we had in the Cold War. I'm not sure it would be the same, but we had ground much cruise missiles in Europe in the Cold War. My former deputy actually commanded one of the units in Sicily, so I know a fair amount about how those units operated.

00;39;43;13 - 00;40;06;01

Greg Weaver

And once dispersed, come in. Was tremendously survivable. It's even easier to hide than dual capable aircraft because you don't need an airfield. You can go anywhere. All you need is a building big enough to drive the launcher into. And there would you know, I'm there's probably tens of thousands of buildings that size in NATO Europe.

00;40;06;03 - 00;40;24;05

Greg Weaver

So good a man operated appropriately would be really survivable once it dispersed from its peacetime garrisons before it disperses. It would have the same vulnerabilities that the DCA would have.

00;40;24;07 - 00;40;45;10

James Petrosky

Okay. No. Thank you. Yeah, I got a message or got a chat from James Frishkoff regarding the NNSA production. And, you know, as we look at TNF, we do have to look at the, you know,

available inventory. You've talked about the hedge, which was exactly where it would have to come out on, on a short-range basis.

00;40;45;10 - 00;41;12;06

James Petrosky

And we would definitely have to find a better way to increase the rate of production. So, his question is, you know, since they, since NNSA is production rate limited, and for every produce, all silicon represents an opportunity cost against the production of an 84. For LRSO, does a shift to TANF really get us any better economy of force and is very production limited reality.

00;41;12;06 - 00;41;21;16

James Petrosky

And it sort of connects to your, you know, enforce in-country, kind of TANF, concept because you gotta have the weapons available on site.

00;41;21;18 - 00;41;50;26

Greg Weaver

Yeah. So, there's a lot in that. So let me, let me say that in my opinion, maybe the only more urgent imperative than improving our theater nuclear forces is fixing NNSA's ability to make nuclear warheads. It is a constraint that not only is a practical problem in terms of that, we have to work around in terms of fielding the force we need.

00;41;50;28 - 00;42;34;21

Greg Weaver

But it's also, it's it also undermines our adversaries perception of our ability to compete. So, fixing the NSA production infrastructure is probably even more important than augmenting theater nuclear forces. Maybe not on the same timeline. It's probably not as doable on the same timeline, although I think it's more doable than in NNSA says it is. You know, I would note that when NSA pushed pretty far to the right, the date by which we would be able to get back to 80 pits a year, 80 plutonium pits a year, production, you know, they made it.

00;42;34;23 - 00;43;10;22

Greg Weaver

I don't think I can say that date, but it's well over a decade from now. They pushed it out, too, and said, that's the best we can do. I would just note that in 1945, we built three nuclear weapons by hand and had no nuclear weapons production infrastructure, and by 1950 we had 750 weapons. So, it's unclear to me why, with a large existing infrastructure and the right sense of urgency and the right leadership, we can't build nuclear weapons faster than.

00;43;10;22 - 00;43;16;04

Greg Weaver

And NNSA currently says they're capable of doing. But that's a that's an aside.

00;43;16;07 - 00;43;34;02

James Petrosky

Greg, Greg, Greg, I, I could before you go there though, since you since you pointed at that, I think it's really important for this community. So your, your view and, and we discussed this on this seminar in the past is that it's not a matter of, you know, we've done it in the past. Why can't we do it now?

00;43;34;02 - 00;43;48;19

Peter Huessy

So I'll pass it to you without uncovering anything about, you know, the detailed technical aspects. What do you think is really the, you know, the real crutch to keeping us from doing that? Because it's a huge part of our, our deterrence strategy.

00;43;48;21 - 00;44;32;04

Greg Weaver

Yeah. So, look, it's a I'm not trying to minimize the complexity involved. It's very complicated. Making nuclear weapons is a really complex endeavor. But NNSA operates under a lot of constraints that are self-imposed, that aren't required by law, that aren't imposed by any other agency on them. And I think if they did a really thorough effort to look at whether they, for example, all of their safety requirements are commensurate with the problem that they're trying to address, which is to avoid nuclear war.

00;44;32;04 - 00;44;59;01

Greg Weaver

Right. They could do a lot to go faster and, and I don't want to say too much more about that. But let me get back to the question. So, James mentioned a trade off in production between Belarus. So, it's like a man. So first of all, without saying what the rate is, once we're at full rate production of the W 84, assuming that's the warhead that we would use in split command in addition to Belarus.

00;44;59;01 - 00;45;25;28

Greg Weaver

So, and I don't know whether that's going to be the case or not. Once we're at full rate production, even within NNSA's limitations, you can build a lot of those warheads a year, right? You will build out the LRA. So, requirement pretty quickly. And SLCM-N is in many ways has more utility in a, in the theater for the theater problem than bomber launched LRA.

00;45;25;28 - 00;45;55;00

Greg Weaver

So do the bombers are based in Conus. It's a bomber based in Conus with ultra also is a good example of a system that doesn't have the operationally, relevant delivery timeline attribute. Now, you can forward deploy those bombers and that'll reduce the timeline. But then they're vulnerable to preemptive strike on bases forward. And bombers require longer runways than DCA do.

00;45;55;02 - 00;46;34;23

Greg Weaver

There's a smaller set of places you can disperse them to in Europe or Asia. And so slick command is far more survivable in theater than a bomber in theater. So I, you know, I would say do a mixed buy, but if it's the same warhead and I don't know whether it is or not because I'm three years out of date, on the plan, but if it's the same warhead, I would do a mixed buy of warheads for slick amount an hour or so, and I would deploy both of them simultaneously, and then just extend the buy until you have enough for both capabilities, which wouldn't extend the buy very many years. As I understand it.

00;46;38;23 - 00;47;02;25

James Petrosky

Well, good. And I'm going to follow on with James. The he sent out a corollary to his argument or discussion. And that is, moving away from the nuclear side. Is there a case for leaning on conventional prompt strike type capabilities against the adversaries, primarily to, you know, reduce the, you know, to get into the coercion of the escalation ladder that, we would be in at that point.

00;47;02;27 - 00;47;48;28

Greg Weaver

Yeah. So I guess so first, there is a role for precision conventional strike capabilities in, in responding to potentially and deterring potentially, adversary limited nuclear years. But I think there's three key problems with the conventional options. The first one is the first one is that in order to have conventional options available for nuclear for response to limited nuclear use, you'll have to withhold a portion of your conventional precision strike capability from use in the conventional war to have it available for that purpose, and that's not usually how our military fights.

00;47;48;28 - 00;48;23;12

Greg Weaver

These are conflicts. We use everything at our disposal when engaged in a high intensity conflict. And so, I have real doubts about whether capabilities purchased for that for that purpose would actually be available at the point when, they were needed to, to be part of a response to adversary limited nuclear use. The second problem I have with the conventional response option is, is specific to responding to, let's say Russian coercive use or Chinese coercive use.

00;48;23;14 - 00;48;49;03

Greg Weaver

If the Russians initiate nuclear use because they're, they believe they're starting to decisively lose a conventional war and they're trying to coerce us into stopping, responding with a large scale, precision conventional strike option is likely to only convince them that they haven't hit us hard enough yet. Right. That that we are continuing the conventional campaign.

00;48;49;03 - 00;49;13;29

Greg Weaver

They're trying to stop and we're doing it even more intensely than we were before, assuming that's even possible, which I'm not sure it is. Right. Because I think we'd already be doing pretty much everything we were needed to do. And it's so I don't think it's likely to restore deterrence of further Russian limited nuclear use. I think it's possible that it would actually encourage them to hit us harder and faster.

00;49;14;01 - 00;50;00;09

Greg Weaver

Whereas a response in kind with nuclear weapons, is it's not guaranteed to convince them to stop by any means, but it's more likely to have that effect, especially if they thought that maybe we didn't have the political will to do it. Right. And then what was my third problem with conventional, Oh, so there is, there is some aspects of, the reliance on existing conventional precision strike capabilities on outside source systems, sources of guidance, information outside the weapon itself, like GPS, for example, right, that make those systems effectiveness dependent on systems.

00;50;00;09 - 00;50;29;07

Greg Weaver

We might not have in the in the event of, an adversary decision to start using nuclear weapons so the Russians could pair limited nuclear use on the ground with limited nuclear use in space. Right. Our nuclear systems aren't dependent on external guidance capabilities for very good reasons. And so that's another that's a it's a kind of down in the weeds limitation on potential conventional, capabilities.

00;50;29;07 - 00;50;32;09

Greg Weaver

But I but I think it's an important one.

00;50;32;12 - 00;51;01;13

James Peterosky

Well, thank you know that that that definitely is something to consider. And often brought up you know, why nuclear we should go conventional. And that's a very good argument. I want to turn, away from the sort of the internal government part and back up a little bit more on Jason Wood's question, which was what priorities, would you recommend to focus on in the industrial base for constructing the missile portion of these systems?

00;51;01;15 - 00;51;08;07

James Petrosky

You know what sort of missing maybe a gap analysis, if you will, and how industry can respond.

00;51;08;09 - 00;51;34;17

Greg Weaver

So, I mean, it's really the I don't think we have an issue with the ability to build the systems

necessary. What we have is a capacity issue. Right. And, and the capacity issue is even worse for conventional forces than it is for nuclear, because for conventional, you need way more of these systems than you do nuclear.

00;51;34;20 - 00;51;58;02

Greg Weaver

I just think we need overall to focus on, well, first of all, when we, when we start a new weapons system program. What let's say it's a system that's dual capable, like a sea launch cruise missile, for example, or a, when we start those programs, we should always invest the additional money to rebuild in. Sure.

00;51;58;02 - 00;52;33;14

Greg Weaver

What we view at the time as surplus production capacity, because it's likely to become not surplus. Right. And this is one of the problems that we have now with NSA is that we built that complex down to a capacity size of just barely being able to sustain the existing nuclear stockpile, because we didn't think it was possible that we would end up in an intense nuclear arms competition.

00;52;33;14 - 00;52;52;00

Greg Weaver

Again. But here we are. We're in one, whether we like it or not. And now, if we had built 20 to 30% surplus, what was viewed then as surplus capacity into the complex or obtained it, we would be in a much better place now. So, it's a lot like buying insurance.

00;52;52;03 - 00;53;00;21

Greg Weaver

It seems expensive at the time, but it when you need it, it's not. It's nowhere near as expensive and as having trying to fix it.

00;53;00;24 - 00;53;24;16

James Petrosky

Well, that's great. No, I appreciate that. The response last, I'm going to wrap it up with this last question from Ed Martinelli. And his question is what are your thoughts on Putin's suggestion to extend New Start, the one that he's pulled out of one more year with respect to this topic? Rather it yeah.

00;53;24;19 - 00;53;46;12

Greg Weaver

So, I mean, so with respect to the specific topic, it doesn't really have any effect one way or the other because it doesn't affect the other forces. And it but I do have. So, I'm probably going to spend the weekend finishing a paper on this question of Newstart extension or whatever you want to call it. It's not legally, technically extension.

00;53;46;15 - 00;54;21;11

Greg Weaver

I think this is a, a really bad trap. So first of all, if we're going to be able to use arms control in the future to enhance our security, we need to convince the Russians that we're deadly serious about compliance, and the Russians are not complying with Newstart. In fact, they're violating Newstart. They suspended their compliance with the inspection and verification portions of the treaty.

00;54;21;13 - 00;54;49;22

Greg Weaver

You can't do that under international treaty law unless the other party to the agreement is in material breach of the treaty. And we are not and we're not in material breach. And the Russians didn't even claim we were in material breach. So they illegally suspended the verification part of the treaty. We shouldn't agree to continue to operate under a limit that was enshrined in a legally binding agreement that they're in violation of.

00;54;49;22 - 00;55;29;05

Greg Weaver

So that's just a principle, right? That's not a is it? In our security interest in the near term. It's a principle that I do think is it affects our security interests in the longer term. Right. And the Chinese will watch how we deal with Russia on, on these arms control issues. The other point I would make is there's, the I'm not that concerned about the Russians increasing their deployed strategic nuclear force because they already have the ability and their strategic nuclear force to target every part of the US strategic nuclear arsenal that they can actually find.

00;55;29;07 - 00;56;02;22

Greg Weaver

Okay. They won't actually increase. It won't increase their ability to destroy us. Strategic the US strategic deterrent, if they deploy 500 more weapons. But we face the prospect of two peer adversaries and we are going to if we want to maintain the same nuclear strategy that we have. Well, since the advent of the nuclear age, really, we're going to have to increase the number of strategic nuclear warheads that we can deliver or to be able to cover Russian tanks simultaneously.

00;56;02;28 - 00;56;24;06

Greg Weaver

It's not by a huge number, but it's by a number that would exceed the Newstart limit. And so I'm not an advocate of extending the Newstart limit. For those two reasons. One, we have a strategic need to field some additional capability. We don't need to match Russia and China's buying deployed forces to be able to achieve our strategy.

00;56;24;09 - 00;56;50;11

Greg Weaver

Not even close. But we do need more than Newstart allows. And I also think we need to make

clear to our potential adversaries that we take compliance with arms control seriously, and we're not going to continue to comply with the limit that you violated, in addition to all of the other arms control treaties they file in. I guess that's down to where I am on it.

00;56;50;13 - 00;57;07;14

James Petrosky

I think it's very clear. Okay. Well, we are up against the hour. I want to turn it back to our host, Peter Huessy, but before I do, I want to thank you, Greg, for what you do and for coming on the show and also to our audience for providing these, great questions. This is the advantage of coming on this seminar.

00;57;07;14 - 00;57;18;02

James Petrosky

You actually get to interact with the with the speakers. And that's what we want to continue to do. And so, with no further ado, I turn back to Peter for any final comments. And then, and then the Kimberly.

00;57;18;04 - 00;57;37;12

Peter Huessy

Now, Greg, I just want to say thank you, for taking part of this site. It's been very, very useful. I do want to thank our sponsors that are attending today, as well as our attendees, because you attendees make this possible and we hope it is going to be valuable. Kimberly does a wonderful job of getting the video out.

00;57;37;12 - 00;58;08;04

Peter Huessy

And the transcript, which we will have sometime soon and posted on our website. And I just want to thank you again, Greg. I said, this is I think this is a deadly serious issue. It's something that we as a country, both Congress and the administration is grappling with. Admiral Wolf, today at a conference I'm now attending with the Minot Task Force, detailed what they're doing with these sea launch cruise missile, nuclear variant.

00;58;08;07 - 00;58;30;05

Peter Huessy

They're going to put out a, request from four different companies to give them ideas of what they think would look like, and then they're going to down selected to and what they call phase two. So that's progress. In fact, today was quite interesting. There's an extraordinary amount of progress being made across the board in the nuclear deterrent area, which it should be.

00;58;30;08 - 00;58;48;05

Peter Huessy

But again, we are kind of behind the eight ball, given the fact we've been delayed, for, for literally decades. But again, Jim Petrosky, our president. Thank you, Kimberly, thank you for everything you do. And, Greg, again, thank you from NIDS, for taking part and being our guest

speaker today.

00;58;48;07 - 00;58;55;01

Greg Weaver

Well, happy to do it. And I appreciate the opportunity to speak to all the attendees. So, thanks.