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**Nuclear Weapons, Nuclear Strategy & National Defense**

**Defense Writers Group  
Project for Media and National Security  
George Washington School of Media and Public Affairs**

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**Moderator:** Welcome to what I think is a very important Defense Writers Group -- Nuclear Weapons, Nuclear Strategy and National Defense. There are so many important issues out there, but I think we'd all agree that there are none more important in this very dynamic period than trying to get this right, and I can't imagine three better speakers to guide us through these topics and answer our questions today. Each has had a long and distinguished career, holding a variety of prestigious positions in the national security world, but they're here today in particular because of what they're doing now.

Ambassador Eric Edelman serves as the Vice Chair of the Commission on the National Defense Strategy, expected to release its report to Congress later this year.

General C. Robert Kehler, retired. Served as Commander, US Strategic Command, clearly one of the crown jewels of our nation's security.

And Franklin C. Miller served on the Congressional Commission on the Strategic Posture of the United States.

Gentlemen, thank you for being here today.

As always, today's discussion is on the record. You can record it for accuracy and quotes but there's no rebroadcast of audio or video.

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I'll ask each of our guests to present some opening thoughts. I'll ask the first question. About a half a dozen of you emailed in advance to get on the list, but for the full hour I'm sure we'll try and get to just about everybody.

So starting off, Frank, would you like to open the floor for us, sir?

**Mr. Miller:** Thank you very much. It's a pleasure to be here.

We live in dangerous times. That's not a cliché. I want to speak to fact because I think there's more than riff of the 1930s. So stay with me for just a minute.

If you think about Europe. You had a [inaudible], expansionist, messianic leader who was broken up in his armed force and who wanted at a minimum, at a minimum for anybody who spoke the German language to be included in Germany's borders. You had a Japanese clique that was [inaudible], expansionist, seeking the resources of its neighbors. Neither the Japanese leadership nor Hitler believed that the West would fight.

Xi and Putin combine the elements of all of that and they do so with nuclear weapons. That's part of the reason that our nuclear arsenal is so absolutely important.

Xi and Putin believe deeply in their nuclear arsenals. They've been building them up for a decade, so this nonsense of an arms race that could be started by our modernization program is simply that, nonsense. They've been building that force up for over a decade. Putin uses his force to intimidate the West blatantly. Xi is more skillful but uses it, nevertheless.

The first reason for our nuclear force is to deter.

A second reason is that until now [inaudible] will be going forward. Since 1945 there's been no war between the great powers. That's because nuclear weapons have made war too dangerous, and it's critical that we continue to make war

between the great powers too dangerous.

A third reason for our nuclear force is that our nuclear forces are the backdrop, the essential backdrop for all of our military activities around the world.

The fourth reason is that our nuclear forces are anti-proliferant. Without our extended deterrence we'd be in a Ken Waltz world with everybody wanting a nuclear deterrent. Many of them having it.

As Thom said, I was on the Conventional Posture Commission. It was not the Nuclear Posture Commission. It was the Posture Commission. And I just want to say that this group of 12 highly disparate experts reached consensus on a very critical conclusion [point]. We need to deter Russia and China simultaneously going forward. Whether aggression from Russia and China is combined on that plan basis, or whether it occurs on an opportunistic basis, it is in fact a real threat.

Second, the Commission concluded that the modernization program which the administration is currently following is not fit for purpose. It was designed to meet the threat of 2010. And 2010 is not 2024. So the modernization program is necessary but not sufficient.

So my role was to set the stage and I'm going to turn it over to Eric to keep building that stage.

**Ambassador Edelman:** Thank you, Thom, for inviting me to be here this morning. I think the last time I addressed this group was in late 2008 when I was leaving government as a valedictory. So after how many years now, 16 years, great to be back.

**Moderator:** I have all of your overdue library books, so --

**Ambassador Edelman:** Thank you. And it's great to be on a panel with General Kehler and my frequent co-author Frank Miller, both of whom have forgotten more about nuclear weapons than I've ever

known. So everything I say you should listen to advisedly.

Nuclear deterrence and escalation management in particular are back in the news and the subject of a lot of speculation by members of the fourth estate but also OpEd writers and pundits, and not least policy-makers after what I would call a 30-year post-Cold War vacation from thinking about such dark and forbidding topics.

There's no question that that 30-year hiatus has created a cost. When I was still in government we had the episode at Minot Air Force Base where nuclear weapons were mishandled and Secretary Gates empaneled a commission to be led by the late Jim Schlessinger which Frank served on, which testified to the fact that inside the services and certainly inside the Office of the Secretary of Defense, our intellectual capital about nuclear weapons had been seriously depleted. And about a year later the Defense Science Board did a study as well in which it concluded that our nuclear deterrence skills by Richard meant not the hardware but the software with which we think about these things had really deteriorated.

I think you see some of that on display in the current environment, and I'll come back to that in a minute. I'm looking around the table to see if David Sanger's here because I'm going to take his name in vain.

**Moderator:** He should be here, and reporters and deadlines, they just never make it.

**Ambassador Edelman:** Then I can talk badly about David behind his back, and please, no one report out on me.

But I think you can see it in the current environment because, with the potential exception of President Biden himself, almost all of the senior US government officials who are dealing with these questions today as they return to the fore for the reasons that Frank articulated, the buildup of modernization of the Russian arsenal, the buildup of the PRC's arsenal of nuclear

weapons. The people who are now dealing with this basically had their formative educational and professional experiences after the Cold War. I think we can talk about what's valid in terms of lessons from what we learned about deterrence during the Cold War and what is not valid. Obviously we're in a very different environment. But I do think the sort of founding fathers, if you will, of the nuclear strategy business gave us a language and a kind of grammar for thinking about nuclear weapons that is important to understand.

One of the ironies of the current moment is sort of at that very moment when we stopped thinking about nuclear weapons the Russians actually went to school on the subject, as it were. We knew, we learned after the Cold War, that the Russians had thought very differently about deterrence than we did. And in fact hadn't paid much attention to the US literature on nuclear deterrence. But once the Cold War ended and the Russians found themselves in essentially in another irony, the same position that we had found ourselves in during the Cold War. That is to say trying to compensate for conventional inferiority with nuclear weapons, they actually went to school on our own nuclear literature. So just at the point where we stopped thinking about it, they began thinking about it in more detail. And they've generated a rich literature of their own which Professor Dima Adamsky calls thinking about deterrence a la Russ. And I commend to everybody Dima's new book on the Russian way of deterrence which is an important study of that literature.

The Russian discourse that's emerged is actually quite a bit different from how we think about the subject. Certainly how we think about it today. I just want to touch on a few points there.

One is that Russians think about deterrence in a much more comprehensive way than we do. They think about deterrence as a suite or a continuum of activity as opposed to stovepipes. We tend to think we've got conventional deterrence, we've got nuclear deterrence, we've got cyber deterrence. They think about this as a suite of activities including crucially the

information domain where much of the Russian writing is devoted to the notion of reflexive control. This is something that many Russians thinkers on the subject, including Benera Gerasimov, the Chief of the General Staff, have written about, which is the notion that you can manipulate the social and information environment of your adversary to actually do what the Chinese talk about which is win without fighting. You an actually get them to do what you want them to do without actually having to use your nuclear weapons.

Second, the Russians, there's a king of linguistic issue here that Dima points out. The Russian word for deterrence is sderzhivaniye which is restraint. It's a little bit different from our concept of deterrence. And we have a tendency to think about restraint as something that if we exercise we can elicit that on the part of our adversary. But in the Russian literature, sderzhivaniye is almost always connected to ustashenya which is threat or coercion. So for Russians the idea of deterrence or restraint is something that you impose on the adversary through manipulation or threat. And the reason that Russian doctrine has emphasized the use of theater weapons to escalate a conflict, to deescalate it, or more appropriately, to end a conventional conflict on terms that are favorable to Russia.

So given that backdrop it's no surprise that the current conflict in Ukraine has been replete with all of the nuclear saber rattling that President Putin and especially the Vice Chairman, his Security Council, Dmitry Medvedev, the former President in whom the Obama administration invested an awful lot of political capital because he was supposedly the moderate. It's very hard to see much moderation in his recent statements which call frequently for use of nuclear weapons against Poland, again other US allies, against the US.

But we've seen this repeatedly, as recently as two months ago President Putin in an interview with Dmitry Kiselyov, a Russians journalist, talked about how my arsenal is bigger than yours, essentially. Russia has a fully modernized nuclear arsenal and

therefore the US -- is more than a match, as he put it, for the US in a nuclear war.

As a result, US support, as you all know for Ukraine has been bounded by the Biden administration's concerns about nuclear escalation and escalation management because of the President's determination -- understandable -- to avoid provoking, as he put it, World War III with Russia.

And we have one very recent example and one reason I'm sorry David is not here, is that he's one of the two journalists who broke this story. The other being Jim Sciutto, about the US having intelligence in the period in the fall and winter of 2022 when a lot of chatter was picked up among Russian officers about the possible use of nuclear weapons, theater nuclear weapons.

I don't think we actually know what this episode represents yet. I'm struck by the fact that the administration apparently took this so seriously, and then leaked the information to two leading journalists, but I have some questions about that particular episode.

One is that although we heard lots of chatter, apparently no movement by the 12<sup>th</sup> GU MO, the element of the Russian Ministry of Defense that actually handles nuclear weapons. Now it's also the case that we might not see movement of so-called tactical nuclear weapons. By the way, I hate the term tactical nuclear weapon. My view of so-called tactical nuclear weapons is your view of whether a nuclear weapon is strategic or tactical is equal to the square root of the distance between you and the aim point. If you're Estonia, one of these theater weapons is going to seem very strategic to you, not tactical. And it's really the case -- General Kehler can correct me if I'm wrong, but we use this designation more as an artifact of arms control and what we can count by national technical means of intelligence rather than a real assessment of how they're used.

To me, this all smacks of reflexive control, because we might not have seen movement of theater weapons, but surely if the

Russians were serious about using them, they would have put their strategic forces on alert. You would not possibly be prepared to use theater weapons on a battlefield and not at least anticipate that your adversary might respond with a strategic strike.

So in the fullness of time we'll figure out whether this was reflexive control and whether the Russians, having seen the administration's use of its pretty exquisite intelligence about Russian intentions before February 2022, to try and declassify that intelligence and engage in deterrence by disclosure to try and stop the Russians from attacking Ukraine. That maybe the Russians figure they're listening and we can use this to our advantage.

Final two points, and then I'll kick it over to General Kehler to correct all my mistakes.

Whatever transpires in this war, it is clear that Russian conventional forces have been very severely depleted and damaged by the last almost three years of warfare. The Russian defense industry has reconstituted itself much more quickly than I think our intelligence community anticipated, but even with that they're having trouble replacing their materiel losses on the battlefield with new production as opposed to refurbish old, very old tanks and armored personnel carriers. And I think that means that at least for the foreseeable future in the context of the European theater, Russia will continue to rely on its nuclear forces to deter and to coerce the US and its allies, particularly as they now face an enlarged NATO that expands its borders all the way from the Kola Peninsula to the Black Sea. So for its part I think NATO members probably need to revisit their own nuclear posture, to think about ways to shore it up and to make it more credible and more convincing to our Russian adversaries.

Frank and I have actually a modest proposal in that regard which we published a few months ago.



A final point, the PRC is watching all of this and the lessons that they are learning about how we respond to Russian nuclear threats and coercion undoubtedly will be reflected in their own thinking as they build their arsenal into the arsenal of a true nuclear peer competitor. And I'd just make the observation that although the DoD's Chinese Military Power Report's relying on our intelligence community, expect that to happen in the mid-2030s, we have seriously underestimated the entry into operational capability of almost every other Chinese capability, so it could happen sooner than that.

**Moderator:** General Kehler, sir.

**General Kehler:** Thanks for what was really an unexpected invitation to come and address this group. I'm pleased to be here, and especially with the two outstanding gentlemen to my left.

My almost 39-year career was founded by two things. From the time I was a 2<sup>nd</sup> lieutenant until the early 1990s, it was dominated by the Cold War. Then there were some short years of us believing that things would be different after the Cold War, and some describe that as a peace dividend, et cetera, et cetera. The rest of my career was dominated by what happened on 9/11.

So when I left uniformed service ten years ago now, which doesn't seem possible, but ten years ago, the context was still about violent extremists. That was the focus point. But we noted with some concern, really, that Russia was investing very, very heavily in its military. Primarily what concerned me at STRATCOM was they were investing very heavily in their nuclear forces and as we saw, they were struggling, actually, with a lot of that investment. They were having some difficulty launching new ballistic missiles and getting their own submarine at sea. There were some interesting challenges they were having.

But Putin himself was directly involved in all of that activity and you've seen that ever since. He participated in exercises.

He kind of wears his nuclear force on his sleeve, and that can certainly become even more apparent with the war in Ukraine.

China was on the horizon when I left the service. We knew there was something going on there but it was something that I believe at the time the intelligence community didn't see as quite as urgent and successful as what has emerged over the last ten years in particular.

So that was the context. What we find ourselves dealing with today is what some have called the two nuclear peer problem. I'm okay with that. I understand what that means. What's most significant about that is we have never faced in the nuclear age two nuclear armed adversaries that are nuclear peer states. That is a significant change for us, and I think it's providing us a compelling and urgent reason to want to proceed with not only our modernization effort but some fundamental rethinking about our strategy for how we go forward.

I was very reassured to read what was in the Strategic Posture Commission's report in both of those regards. I think in my reading of it -- I was not part of the commission, but in my reading of it I think they got it right.

So the question really becomes what do we do here? I believe that the most important national security objective that we still have is to prevent the combat employment of nuclear weapons and the coercive use of nuclear weapons against us and our allies. And I say the combat employment of nuclear weapons because people say well, if you want to prevent the use of nuclear weapons, my take on this is nuclear armed nations use their nuclear weapons every day. Putin's using his every day without significantly employing them in combat. Iran uses nuclear weapons it doesn't have.

I've said that before, wow, you want to prevent the combat employment because we're using them and some people cringe, so maybe it's leverage them. Maybe there's a better word than use so that's why I'm careful about how I say that. But to me the

most compelling and urgent national security priority remains deterrence. And assurance, if you want to describe it that way.

So what do we mean by deterrence? Well, that's our ability to, with credibility, hold at risk those things that an adversary values the most. That's the same deterrence theory that we have used since the early days of the Cold War and I think that that continues to hang today. The Posture Commission mentioned some attributes of our strategy that remain relevant. I think that the war in Ukraine is validating some of these and I think maybe all of them. The war in Ukraine, who knows what direction that's going to take, but I think certainly until now I think what we're seeing there is a validation of our long-time deterrent strategy policy.

And just to remind everybody, what's part of that? Well, assured second strike. Flexible response. Extended deterrence and assurance. Tailored deterrence. Calculated ambiguity. And a hedge against risk. Those are the elements that the Posture Commission called out and said these strategy elements seem to continue to hold, and I would agree with that.

The question is, what do we do in terms of those two nuclear peers and what are our assumptions about whether or not or how they will interact together? I think that's a significant set of issues for us because that drives a lot of what we will do in terms of the future.

Force requirements begin with some understanding of who we think the adversaries are and what we intend to do in order to deter them. But I think what's significant now is a requirement for us to simultaneously deter them both in all scenarios.

So I don't know what they would ever do together. It always looks to me like when Putin and Xi appear together on the stage, that their smiles are a bit forced. I don't know if that's true or not, but the question I think for our policy-makers is, what will that relationship be vis-à-vis us? Is it a triangle? What does that look like? And by the way, that ignores some others

with nuclear weapons out there that we need to keep our eye on, or those who would suggest that [inaudible].

So I think the best way for us to continue to have a credible deterrence that holds at risk those things an adversary values the most, is to field a modern and effective deterrence force of our own, and that begins with and I believe is still our best strategic option, is the triad. But I think as the Posture Commission pointed out, doing the modernization program that was really conceived long before we found ourselves in this scenario today is probably insufficient. It might be insufficient in numbers after they had that conversation in questions. It may be insufficient in its ability to overcome the threats that we see that are being proliferated now.

Both the Chinese and the Russians are fielding some very, very sophisticated anti-missile systems, anti-air systems, anti-satellite systems. Both Russia and China have grown in a very sophisticated way in cyberspace and in space. I think it's a mistake to look at the conventional force performance of the Russians in Ukraine and say therefore the Russian military presents no credible threat to us. They remain the only country on the planet who can destroy us over the course of the next three or four hours. And have had that capability, by the way, through the Cold War and through the peace dividends and up until today.

A mentor of mine used to always say when you're looking at an adversary you have to look at both their intent and their capability. Their intent can change quickly. Their capability cannot. Do I think that the Russians plan on a massive attack from the United States today? No, I do not. That may very well be the least likely of things that we ever face, but could they do it? Yes, they could. And China seems to be building towards something that can do the same thing.

So to quote [inaudible], we're not guests anymore here. With the problems that we are facing I think and the sense of urgency that's going to be required, to make sure that we do not have a

credibility issue with the deterrent that we present to any adversary but in particular Russia and China.

With that, let me stop and I believe the next thing is your part of the morning. Thanks again.

**Moderator:** Thanks to the three of you for really a PhD level discourse on the challenges facing us.

I could dominate the rest of the hour with my questions but my father of blessed memory taught me manners, so I will go to the correspondents around the table for the remaining 30 minutes.

First is Chris Gordon of Air and Space Forces Magazine.

**DWG:** Thanks Thom, and thank you all.

Two questions. If their modernization lags as seems likely or inevitable or already is, what steps do you think the US needs to take to hedge?

**Mr. Miller:** If I can start, the Posture Commission lays all of this out. The Posture Commission was quite concerned that the drawdown of existing forces due to age will not be compensated by the not just in time arrival of the new forces. So the Posture commission recommends that the government take a series of steps which is essentially based on preparing to upload existing forces; bringing back forces that under New START have been excluded from the nuclear role -- tubes on submarines, B-52s that are capable of carrying nuclear weapons.

So there is this interim period until the new forces begin to arrive in the field that needs to be compensated for. Quite apart from the fact that some of us [inaudible] [type] particularly believe that there's a modest increase necessary in US forces anyway due to the geopolitical situation which Bob and Eric have talked about.

**Ambassador Edelman:** I think it's worth reflecting a little bit

on why, for instance, the ground-based strategic deterrence Sentinel missile, which is going to be the successor to the Minuteman III is running behind schedule. It's not because we don't know how to design missiles. And it's not because Northrop is having an issue with that. It's really been more the ability to do the command and control piece and the new siloes and the command stations. And that really is a function of things we've imposed on ourselves. The environmental regulations that make it difficult to run wire in various places. And also just the labor shortage.

We have a very serious shortage of skilled labor, and this is something, by the way, that doesn't just affect the nuclear force, it affects the entire defense industrial base. We don't have enough welders. It's one of the reasons our shipyards are chronically kind of behind.

The issues that we have to take on here in terms of nuclear modernization but more broadly, I would say, dealing with our ability to produce defense articles is very profound and it really implies not just the Department of Defense, Department of Energy in the case of nuclear weapons, but the whole of the US government, and frankly the whole of American society.

**General Kehler:** Let me just add a couple of things to what I would agree with from both my colleagues here.

First, I do not have insider information into -- and by the way, I speak for myself this morning. I should have said that earlier. But I don't have insider information to the acquisition processes or the status. I'm getting my information from all of you in that regard.

But here's where I think we are. First of all, I'm impressed by the fact that the B-21 seems to be moving along. I think there may be some questions about how many we produce annually, but I think, I've not heard anything that would suggest the B-21 is going to be delayed. The same for the long-range standoff missile which I think was poorly named but necessary. There

needs to be a long-range strike capability off of a penetrating platform as well as a standoff platform. I think that's moving ahead.,

The F-35 has been nuclear certified. And the B-61-12 which is the new feeder class. I agree with the tactical and strategic comments from earlier. It depends on who's sitting at the end of the receiving end as to what the effect is. But I've been impressed and finally pleased by the certification of the F-35. And I think the first of those certified aircraft are forward deployed in Europe. Don't quote me on that, but I think that's true.

No question. There are challenges with Columbia and no question, there are challenges with Sentinel. So what do we do?

I agree with the hedge comment. We planned, and our strategy was to have a hedge in our nuclear force in case there was geopolitical breakout or we had some kind of a significant technical issue with the existing force. I think we don't have a significant tactical issue that I'm aware of, but there has certainly been geopolitical change. I think that that qualifies, first to take a hard look at the hedge.

And the second thing is, we're going to have to make some investment to bridge. We're going to have to keep some systems around longer, in particular apparently, and I think I heard the Navy say this. We're going to have to keep Ohio-class submarines around longer. That's okay with me. I think the Navy will have to assess how they do that, but I think that's okay. And the same for Minuteman. I think we're going to have to keep around for a while. But I think it's important for us to realize if we do that, that all of those systems are way past their design life. Way past. Way past their design life.

So there's a program in place to re-engine and otherwise upgrade the B-52. I think that's important as well. I think that's okay, and I think it's moving forward, but all of this is dependent on acquisition and investment.

The final thing I would say, we're going to have to rely more on allies and partners, and I think conventionally. I wouldn't suggest that more allies need to fire nuclear weapons or anything of the sort, but I do think we're going to have to rely more heavily on allies and partnerships, and we've got that framework, and I'm encouraged by what has happened with NATO as a result of Ukraine. I think the question is how do we [inaudible].

**DWG:** Frank, are these [inaudible]? Just on the Sentinel.

**Moderator:** Chris, I'm sorry. With respect, later.

Patrick Tucker, Defense One.

**DWG:** Thanks.

There seems to be a sort of discontinuity in terms of the strategy of China and Russia in the United States. They're fielding highly movable hypersonics that can carry a nuclear payload. Russia's fielding a long-range sub-drone torpedo thing. And we're obsessed with remaking in-silo ICBMs which are kind of [inaudible] back to the '50s. Our highly movable hypersonic doesn't have a nuclear warhead. Or at least if I write it, then OSD will call me and yell at me for about half an hour and tell me no. And we're going to field a submarine in like 2030 or something, 2035.

So why are we incapable of, I don't know, putting nuclear payloads on a wider variety of platforms? Why do we double down on a strategy that seems like a leftover from the Cold War?

**Mr. Miller:** Let me start by saying the Russians are big in ICBMs. [Inaudible] to have ICBMs. The Chinese are fielding 300-odd ICBMs. ICBMs are not going away. So a program to replace Minuteman is the right thing to do.

The question is, what do we need to get the deterrent in the



heads of Putin and Xi? Because at the end of the day those are the two people you have to affect. They're the two people who can press the button without having the Supreme Soviet voting or not voting. It's Putin and Xi, to convince them not to go ahead because the world's going to be worse if they do.

The ALCM replacement, the LRSO is stealthy and we'll be able to penetrate the air defenses. We're working, and the Commission Report calls for this, on the capability to penetrate advanced missile defenses. The Commission calls for deploying a new regional capability. Not SLCM-N by name, but something like that which the Congress has put into law.

So we're doing new things to be able to hold at risk, like Bob said, the potential [inaudible] values and we don't need to go to a hypersonic nuclear tipped system if our other systems can get to their targets.

**Ambassador Edelman:** Can I just add one thing? General Kehler will agree with this, I hope.

I actually went in with the then DNI Mike McConnel, to brief President Bush back in 2007 when we discovered the status six canyon super-capitating nuclear torpedo with a cobalt warhead that will make the Port of Los Angeles uninhabitable for like, I don't know, several hundred years if they ever used it. And President Bush's response I thought was actually totally appropriate. He said if Putin wants to waste his money on a stupid weapon like that -- I mean it is a weapon with literally no purpose other than a revenge weapon which the Russians seem to be into. After a nuclear attack they would use this to punish us presumably because we will have decapitated their national command authority.

Russians invest in a lot of stupid weapons. They've also invested in a nuclear-powered cruise missile, the Burevestnik, one of which exploded and it spread all sorts of nuclear waste over north Russia.

We thought about such a thing during the Cold War and we said it's too dangerous, it's really stupid, we're not going to do it. So I don't think we need to match every investment that the PRC or the Russians make in weapons that, as Frank argued I think, don't serve the purpose that we have of deterring a nuclear fight with either of our two adversaries, or frankly, any other nuclear armed nation.

**General Kehler:** [Inaudible] 15 years, and that's the Pentagon. Watch it. Canyon 6, I thought it was [inaudible]. I thought it was something to get us to pay attention to go down a rat hole because nobody could have a logical idea to have a weapon like that.

**Moderator:** A nuclear Potemkin Village. Thank you.

Andy Hoehn of RAND.

**DWG:** Quickly to you, Frank. When you make the statement "modernization not fit for purpose," what's missing?

**Mr. Miller:** Numbers. If you buy only 12 Columbia-class boats, we're not talking about 2030, we're talking about 2060, 2070. You're going to run out of capability if you continue to keep them at sea. I mean look at the British who have four boats and they're down to two operational. These things get old and so I think numbers do have a meaning here.

The Air Force original plan to buy LRSO struck me as what they planned to buy and deploy in 2015. The world's different. There are a lot more hooks out there. You could put a lot more LRSOs in the force and I think that's important.

Capping the bomber force at 100 doesn't make any sense to me.

So again, except for the regional system, I think it's more of what we've got because they're going to be better than what we have. Personally, I think a modest increase in the force is necessary.

**Moderator:** David Sanger of the Times. I'm only sorry you were late because your book got a nice shout-out.

**DWG:** Oh. If I was here, it never would have gotten a nice shout-out. Thank you.

When you discuss the need for a modest increase, almost all of the discussion you hear on this has to do with the question of how do you assess the Russians' and the Chinese's ability to go talk to each other, coordinate in some way, pose either a theoretical or real second-strike threat together. How are we supposed to measure that and think about that? You hear a lot of people, one wing of the Republican party saying we have to match their numbers as if they were a unitary force. That strikes me as pretty silly.

On the other hand, even Jake Sullivan has said the numbers we have may not be sufficient if you're thinking about this combination. He's not sure what that number is.

How do we get there?

**Mr. Miller:** First of all, whether combined aggression occurs -- this is a question for those we seek to deter. Second of all, whether it's planned -- Molotov rivet drop. Or whether it's opportunistic. We don't know.

So what we need to do is be capable of deterring both simultaneously.

Now you go back to what Bob Kehler said. You figure out what the leadership values. You say what do Putin and Xi value? And you hold that at risk. And that's the number that you have to have, plus a bit of a reserve for Kim Jong Un.

You don't need to pile weapons up because they have more weapons. That's usually foolish. So no one's calling for matching the Russian and Chinese forces combined.

You need to have what you need to have to hold at risk what the leadership values and we know what that is. And on the Chinese side, that number is growing. But it's not a mess.

**Ambassador Edelman:** I would just add a couple of points here to what Frank said.

Number one, I think it's fair to say that Russia and Chinese collaboration is not just a figment of people's fevered, imaginations. Admiral Haines testified two weeks ago that in a Taiwan contingency the Russians might either pile on and help the Chinese or open a second front somewhere to distract.

So I think we have to take the prospect seriously. And although I don't think we've seen any joint nuclear exercises, I think you have to always plan against the possibility that it could happen; and/or that you could face some opportunistic aggression.

Jake's statement that you, I think you're citing David. Correct me if I'm wrong, but is the speech he gave at the Arms Control Association in June I guess a year and a half ago, or two years ago now in which he said that obviously we have to worry about the two-peer problem. He said we don't have to match them weapon for weapon. We can do some of this with conventional.

I think what he left unsaid was the part that Frank said which is that it might involve more numbers on the nuclear side. And trying to figure out that number, I think, is the challenge that I think General Kehler was talking about and which our colleagues at STRATCOM are now wrestling with.

**DWG:** He's said that since.

**Ambassador Edelman:** The reality is we define stability during the Cold War and General Kehler kind of averted to this in his comments by secure second strike. The ability to ride out a nuclear attack, absorb it, and still have enough retaliatory

capability to impose unacceptable cost on an adversary.

The problem we face now, if we're at 1550 warheads per the New START Treaty and each of our adversaries has that target set, if you get into a nuclear fight with one, what's your strategic reserve for dealing with the other? And I don't think we know that yet. We haven't figured out how to get there yet. You have to be able to figure out how to do it.

There are some people who say well, that's very easy. Let's just abandon what we've done for years, which is plan to attack the forces of our adversary as opposed to their population. Let's just move to, and there was a suggestion of this in Foreign Affairs not long ago. Let's just go to a holding populations at risk. Counter-value targeting rather than counter-force.

I think General Kehler can answer this because he's written on the subject of the ethics of nuclear war and the law of armed conflict. I don't think our lawyers would let us do that, number one. But number two, I think it's an immoral strategy to be trying to target civilian populations.

The comeback to that is always well, but these targets are all intermingled. You're going to be killing a lot of people anyway. Yes, but there's a question of intent that's involved here as well. And trying to make our deterrent as credible to our adversaries as possible I think is not going to be accomplished if they think you won't do it because you're basically going to kill a lot of people and open your own population to a similar kind of strike.

**General Kehler:** I agree with what's been said. I would just add the worst possible thing we could do is presume that we only have to deter one. So I think no matter how we believe or assume or deduce how they're going to act together, I think the wrong course of action for us is to say well, we have the force that we have today even though we have two nuclear peers that are hostile, potentially hostile to us -- certainly by their

rhetoric they're hostile to us and have said openly that they're willing to use force to achieve their objectives and we see that in Ukraine. Given that scenario it would be wrong for us to say well, we can create a force that holds at risk all the things that we need to hold at risk in Russia, but we're assuming that China isn't going to bother us if we ever have to go to Russia or vice versa. I think that's absolutely the wrong way to do it.

So a word about force planning and force requirements. There are some pieces that the military will look at when we're talking about force planning and force requirements and it begins with what's our strategy? And during the Cold War some of you will remember we had these notions of one major contingency or two major contingencies or one and a half major contingencies, et cetera. Well there's a similar set of planning factors that we're going to have to use now. About deter one, fight one. Fight one, fight two. Et cetera. That's a strategy call that the planners are going to have to work with the political leadership and the decision-makers to come to some strategic way forward.

The second thing is, then we ask ourselves what does it take to hold at risk the things that an adversary values the most and by the way what are the objectives we're being told to achieve if deterrence fails. Those are important questions for force planning and force sizing and force posture, and the final piece that the planners will ask is what are the obstacles we have to overcome to get there? Defenses and other things which gets to your question about are the forces appropriate for the threat that they're going to face? And that's one of these issues the Posture Commission pointed out, about as we look at the force, even as we deploy the program of record, which again, I can't emphasize enough we have to continue to do, the question is what adjustments do we have to make in order to make sure that that force can succeed in the objectives that the President gives.

**Mr. Miller:** Remember 1550 is the number which came out of 2010, 2011 when Russia was a frenemy and China wasn't in the

discussion. That's not today's world. So 1550 is clearly not appropriate for today's world.

The second thing is, we're talking about deterring Xi and Putin. We're talking about those guys and what they value. And that goes to Eric's point.

**Moderator:** We're at the ten minute mark. Next is Shelley Mesch of Inside Defense.

**DWG:** Hi, thank you guys for taking the time to meet with us.

In recent hearings on the Nunn/McCurdy breach in response to why do we need [inaudible]. Secretary Kendall and General Cotton have both said we need the response time. That's what the ICBMs are for.

Could you explain why the response time is important or what do you see as the necessity of having the ICBMs?

**General Kehler:** The strategic thought behind the triad is that you get three critical attributes out of the triad. You get survivability which is typically represented -- and by the way, each of the legs has a little bit of each of these, but one of them dominates the conversation we're talking about. And of course the submarine force dominates the survivability question. Bomber pilots would argue with you a little bit, but once they're in the air, they have their own views about all of that.

The second thing is responsiveness. Primarily you get that attribute out of the ICBM force, and I'll come back to that in another second.

And the third is flexibility. Typically we get the hedge, by the way if we decide to exercise the hedge it's most easily achieved in the bomber force. We can upload the bombers faster than we can put more warheads on SLBMs or ICBMs.

So why is responsiveness important? It's not just a responsive

attribute in terms of time, but it's also responsive in terms of being able to retarget and be able to adjust with a force that is sovereign, that is in high conference connectivity to the National Command Authority, in this case the President. So the responsiveness piece here has more than one feature to it.

But in particular, the responsive features that could be launched either immediately in response to a threat or not immediately in response to a threat, is something that any adversary planner has to take account of. And whether or not the planner on the other side assumes that the ICBMs won't be there if we try to attack the United States in a massive way, which by the way is what it takes to threaten the ICBM force. Hundreds of warheads. A clear and unambiguous act by an adversary to attack the United States.

So that's a critical feature that an adversary who is looking at risk of making such a move has to presume that they're either going to be there or they're not going to be there. Either way they must contend with it. And that is a significant element to deterrence. That's been our theory all along, recognizing that the ICBM force is vulnerable, but it's [inaudible] to a massive attack by the highest quality weapons that an adversary can have. That's not insignificant.

And ultimately a deterrence calculation is based on an assessment of risk. That is an extraordinarily risky thing for an adversary to do. So that's why the responsive piece of this. It introduces into the risk equation a significant uncertainty.

**Moderator:** Sarah Salem, Access Intel.

**DWG:** Thank you, gentlemen, so much for speaking with us.

What do you think is the minimum addition to production capacity the NNSA will have to make in a post New START Treaty world? And what's the fastest way for them to do that if the budget were to rise by no more than it has during the Obama, Trump and Biden years?



**Mr. Miller:** We tried to produce 75 [pits] a year? This is a problem of workforce. It's a problem of welders and electricians and people who create nuclear-safe facilities. And troublingly, this is not something that you can turn a switch on. Those same welders and those same electricians are needed to build submarines, and they're needed to build other parts, siloes.

So this is a huge problem for this country. It means bringing in a whole lot more trained workers in all of those fields. The submarine community believes they'll need 100,000 new employees by the end of the decade. That's a lot of people.

**Moderator:** We're at the three-minute mark. I will use the power of the chair to ask this last question, and even though we're an apolitical organization and nuclear strategy is so important, Admiral Mullen used to say you know, our nation's not safe if we're broke, and I would amend that to say we're not safe if we're dysfunctional.

How do we get past the partisanship that for example stalled aid to Ukraine which was such a no-brainer among the thoughtful center. How do we get to a thoughtful place on nuclear strategy and nuclear weapons given the dysfunction all around us?

**Mr. Miller:** I can start by saying that was one of the central themes of the Strategic Posture Commission, that we needed to come to a central place, we needed to have our elected leaders and our appointed leaders speak to the need for nuclear deterrence to explain how we got here and where we are in the future. And if the Posture Commission is any example, those of you who know the 12 of us could not come up with a more diverse group of people and yet we have a consensus report.

So it's going to take some degree of passionate commitment to overcome political lines, but I think it's essential just as the work that Eric and his team are doing on the National Defense Strategy.

**Ambassador Edelman:** If I knew the answer to this question, Thom, I'd be running a hedge fund somewhere and be making a lot more money.

Look, I don't think there's any doubt that our partisan divisions, the kind of level of as you've described it dysfunction on Capitol Hill, and just in our political system as a whole is one of our gravest weaknesses vis-à-vis our adversaries, and they are taking advantage of it every day in the information space where they're kicking our ass.

Bob Gates used to complain about how was it that a country that invented advertising was being defeated by guys in caves with laptops. It just didn't make any sense to him.

But the fact is, we're very vulnerable to this kind of manipulation right now unfortunately, because of our deep divisions.

At one level I'm tempted to kind of repeat the comment that Liz Cheney made which is we've got to stop electing idiots to Congress. And by the way, I would extend that to both sides of the aisle because each party has its own form of dysfunction. The crisis in the Republican party is obviously much more visible than the Democratic party, but the Democratic party is not a healthy party either, and we need two healthy parties to make our democratic system work.

So I wish I knew the answer to the question, but it's sort of what we're living with in the moment. I hope we can overcome it, but it's hard for me to see a way out of where we are, particularly because -- the organizations that the folks around this table represent have been so devalued in the public. And because there's no gatekeeper anymore because of the internet. So people are getting their information from all sorts of sources, some of which are not reliable at all.

I was talking to one Republican member who was telling me how

different things were from the time they came into office to today. Where it used to be that they would have to deal with whatever was on Fox. That was the big thing. But this person was telling me that they went back to their constituency and people were saying -- this was a number of years ago now -- that we hate Paul Ryan. This member said why do you hate Paul Ryan? Well, we read this in Breitbart and we read this in Gateway Pundit which is now bankrupt, thank God. But I think that's a big part of the problem.

Let me throw it back at you guys. This is your fault because you've lost credibility with the American public. So what are you going to do to get it back?

**Moderator:** Unfortunately, we've gone from a nation that had shared facts, and I don't just mean going back to Walter Cronkite. But when everybody gets their information on this thing, it's the daily me, and we need to get back to the daily we as a nation. That's not just for the media, it's for everybody.

General Kehler as the one who wore the cloth of our nation for so many years, the last word is yours, sir.

**General Kehler:** Well, in an audience like this I've made a career of trying to avoid being the last word on questions that are about politics in particular. So let me just throw a couple of things out.

I tried very hard wearing the uniform to not be a pessimist or an optimist. Facts are facts and take a look at the objectives that we have and what it takes to do it, be realistic, and move forward.

I also spent time in Air Force Legislative Affairs. I spent three years doing that and that was a real eye-opener for me. I actually came away from that at the time as a fan of the Congress. I realize things are different today, so this is an extraordinary time. But I would point this out.

The United States has been remarkably consistent across the nuclear age in its nuclear strategy and policy. Remarkably consistent. It doesn't really matter when you look back at which kind of administration was in the White House, and I don't know if Frank would agree with all of this, but I think there's been remarkable consistency. And we find ourselves today in a place where investment is clearly needed and that investment has been bipartisan.

The question is what we do from here. How do we go forward from here? And I think that is the significant question for our policy-makers, is can we step back from the politics of the day and make the right strategic decisions for the country?

I'd like to think that we can. Will we? I think that's an open question too.

But I am not a pessimist I guess. I would temper my optimism, but to me the investment that is going on today is a significant indicator of where we are. Is it enough? I don't think so. Should there be more investment in some of these issues, particularly the forces that have been ignored for decades and that were sort of left to go forward on their own momentum at the end of the Cold War. We've got a lot of catching up to do and I think the real question for us is, are we willing to make the investment that allows us to catch up, and not just sort of business as usual?

**Mr. Miller:** At the risk of drawing ire from all of you, one point which I think we'd all agree on is, when you all write about this stuff, you've got to remember that Xi and Putin think about these things differently than we do.

I keep reading what would happen if Putin broke the nuclear threshold? He's not going to break it with one, he's going to break it with ten. They look at these things very differently. And if you need any more proof look at what Assistant Secretary John Plumb was testifying to just recently. The Russians are

putting nuclear weapons in space to disable a whole raft of satellites. That should be a story from all of you guys. This is not a norm that one wants to have where everybody has got a nuke and put satellites in space with nuclear weapons in them.

So they think about these things differently and we need to think about deterring them so that every day when they think about using these things, employ, that the outcome for doing that is worse than what they hope to receive in terms of benefit.

**Moderator:** To our three expert panelists, thank you for a thoughtful and thought-worrying discussion, and to all the experts among the correspondents and analysts, thank you all for being here today.

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