

042018 Air Force Association, National Defense Industrial Association, and Reserve Officers Association Capitol Hill Seminar with Tom Karako, Director of the Missile Defense Project at the Center for Strategic and International Studies; and Michaela, Dodge, Senior Policy Analyst in the Center for National Defense at the Heritage Foundation, on “Extended Nuclear Deterrence and Missile Defense: Challenges in NATO and the Asia-Pacific.” (For additional information on NDIA/AFA/ROA seminars contact Peter Huessy at [phuessy@afa.org](mailto:phuessy@afa.org)).

MR. PETER HUESSY: Good morning, everybody. My name is Peter Huessy and on behalf of the Mitchell Institute for Aerospace Studies of the Air Force Association, I want to thank you for being here at the third of our seminars this year on nuclear deterrence and missile defense, proliferation, arms control and defense policy.

We have the transcript from General Chilton’s remarks over at AFA on Friday, which I will get to you. They were extraordinary. He went through basically the mythologies and misconceptions in nuclear deterrence. It is an extraordinary speech that went on for almost an hour. I’ll get it for you. He’s doing some editing but I’ll get that to you and I really urge to take a look at it.

Next week we have three events. We’re going to do a Russia brief with my friend Steve Blank and Mark Schneider. Then we’re going to do a China brief with Rick Fisher and Gordon Change on the 25<sup>th</sup>. Then we’re going to have Susan Koch of the National Defense University and Frank Rose, who has taken over the arms control slot over at the Brookings Institution, talk about how arms control should serve deterrence, and not the other way around. I urge you to come. That will be the first time Susan has spoken here, and those are the three we have for next week.

The next one, I believe, after that is the first of May, which is General Weinstein, who is head of A10, who will talk about long-range strike options, the B-21 bomber and the GBSD ICBM leg of the triad. As he has said in talking to audiences, he asked them, do you think Russia is acting normally or abnormally. His point is they’re just back to normal, which is kind of an interesting way.

Also, for those of you who would like to -- you have my email -- I’m doing an essay at the request of a publication I can’t tell you about, but you’ll find out next week. They want me to talk about the seven deadly nuclear mythologies. It’s basically where do we get things misconceived in that area. So if you’ve got ideas, please send them to me.

We have today two friends of mine and two really extraordinary professionals in the nuclear and missile defense business. We have Tom Karako and Michaela Dodge. Tom is senior fellow in the International Security Program and director of the Missile Defense Project at CSIS. Michaela is the senior policy analyst in the Center for National Defense in the Davis Institute of the Heritage Foundation.

Just a reminder, as many of you know I am working with the Heritage Foundation on a Reagan Legacy Project. Our first event was on the 22<sup>nd</sup> of March. We did one on SDI. The next one is May 22<sup>nd</sup> and is on the nuclear policy, arms control and nuclear deterrent legacy of President Reagan. We have Keith Payne and Sven Kramer who are going to speak.

Then we're going to hear from Frank Miller, Ty McCoy. Ty used to be an acting secretary of the Air Force. He served all eight years in the Air Force in the Reagan administration. I'm going to be speaking as well on that panel. That is on the 22<sup>nd</sup> of May and is from 10 to 12 in the morning.

Then we're having a private lunch for speakers and selected guests at noon at the Heritage Foundation as well. If you're interested, please let us know. Ron Lehman, excuse me, is my other speaker. He's also going to talk about the history of the summits that Reagan had with the Soviet leaders, particularly Gorbachev of course. Having been at most of the summits, he's going to go over that with us.

We're going to have Michaela talk first and then Tom. They're going to address both missile defense and nuclear deterrence issues in Asia and Europe, particularly extended deterrence and missile defense issues. With that, would you give a warm welcome to our good friend from the Heritage Foundation? She's going to bring another nuclear analyst into the world soon.

(Laughter).

For that, would you all give a warm welcome to my friend Michaela Dodge?

(Applause).

MS. MICHAELA DODGE: You know, when Peter asked me to do this breakfast series he was like, can you come sometime in May or so? I don't know, probably not. So we set the day for today. I'm glad I made it, so that's great. I'm really happy to be here. This breakfast series has been an indispensable part of my own education about nuclear weapons and missile defense issues, and I'm so very grateful that you're running it, Peter, and always bring in excellent speakers, and now me.

My topic today is extended deterrence and allied assurance. Those two have always been very difficult to balance. How do we make sure that our allies feel safe? How do we make sure that they don't think our steps threaten others?

By a majority of public accounts our allies do feel safe and they do feel assured. But what I've noticed over the past several years is that in the background they are asking whether their own countries should develop their own nuclear deterrents. The sort of increased confidence with which they ask these questions make me feel somewhat uneasy. That's particularly the case with our allies in Asia.

My expertise is in Europe, so I will stick to that region. Even as radiation detectors went off all across Europe from the mysterious event possible somewhere in Russia, a public discussion about the nature of nuclear threats to Europe has been limited. In some ways, maybe, it's not an entirely bad thing. If we had a referendum in many of the European countries that host U.S. nuclear weapons, who knows how those would turn out. It is not entirely a wild stretch of the imagination to say that maybe some of those populations would not be supportive of a continued U.S. nuclear presence on their territory.

National and cultural difference shape how allies perceive U.S. nuclear weapons policy. We have divisions generally between ministries of foreign affairs and ministries of defense. We have divisions between allies who joined NATO during the Cold war and allies who joined NATO since then.

The core issue today, I think, for NATO is that there is no sort of broad deeply rooted agreement on what the threat to NATO is. Elites at the ministries of defense and ministries of foreign affairs have managed defense policies to some extent independently of public opinion. Again, that's not an entirely bad thing. For the most part they do have an appreciation for the positive role that the United States has played in European security since the end of the Second World War.

But NATO's strong declarations supporting the nuclear alliance should not give us warm and pleasant feelings. European publics in general do not understand or appreciate the role that nuclear weapons have had in keeping Europe whole, free and at peace. A lack of balanced dialogue on nuclear weapons issues is a problem, and there is a dialogue ongoing.

The International Campaign to Abolish Nuclear Weapons won a Nobel Peace Prize for drawing attention to the humanitarian consequences of nuclear weapons use. If anything, nuclear weapons ought to win a Nobel Peace Prize for keeping the lid on great power conflict since the dawn of nuclear age. In November last year, Pope Francis declared the threat of their -- meaning nuclear weapons use -- as well as their very possession, which is a departure from previous policy, is firmly to be condemned. The Organization for Security and Cooperation in Europe welcomed, with U.S. consent, the launch of UN negotiations to ban nuclear weapons.

So public debate is happening and it is rather one-sided. Of course, that has much more impact in democracies who are generally more transparent than in opaque totalitarian regimes, including those that border some of our NATO allies. Imagine what would happen to a Russian journalist who would go in front of the Duma and say, I would refuse the president's legal order to launch a nuclear weapon. That would just not happen.

The timing of the intense effort to de-legitimize U.S. nuclear weapons is pretty bad too, because we need to modernize our old delivery platforms and we need to sustain

our nuclear warheads. We need to reassess our strategic posture in the light of Russia's aggressive behavior and extensive nuclear weapons modernization programs. We need to take into account the disparity between our and the Chinese nuclear weapons production complexes.

I am very pleased that the 2018 NPR provides a very good strategic rationale for why nuclear weapons continue to be important and how developments in other nation's nuclear forces inform the U.S. nuclear posture. Meanwhile, we are rather scared to even utter the words like nuclear tests or new nuclear weapons, for fear of undermining progress on a consensus for nuclear weapons modernization that we so badly need in the years ahead.

Enough negativity for this Friday morning. There are some practical steps that we can take to sort of get the debate back on track, and I think that's the responsibility of the proponents for continued nuclear weapons modernization, as well as the administration. First, we have to make a forceful case for U.S. extended deterrence.

Again, I think the NPR 2018 does a really good job in very plain, simple language saying nuclear assurance is one of our top priorities for the U.S. nuclear arsenal. In fact, it's number two in the list for priorities, whereas in the previous NPR it was number four and lumped into other language related to proliferation. Just that simple communication point, we are going to do what it takes to deter an attack against the U.S. and U.S. allies, and assure U.S. allies, is great progress and a step forward.

We need to continue to make a forceful case for U.S. nuclear weapons modernization. In my experience it's somewhat problematic to have a serious discussion about nuclear weapons modernization with some parts of the European elite. Sometimes they even treat such discussions as completely illegitimate. If we even cannot have that discussion, we are all worse off, because we are not going to exchange opinions, we're not going to learn about each other's problems, and at the end of the day we're going to be less safe and secure for it.

We do have to get into a habit to respond to anti-nuclear opinions and editorials in the United States and in Europe. At the end of the day, if we cannot get public support for nuclear weapons modernization, particularly in the United States, it's going to be very difficult to make it happen in the years ahead. I also think that our officials ought to be available for interviews with local newspapers and universities, and are kind of outside the usual circles that they talk to when they travel to Europe.

I still remember when I went to college in the Czech Republic -- I still remember a discussion with the U.S. ambassador who came to my university to talk about the missile defense radar that was supposed to be placed in the Czech Republic. This sounds like something so commonsensical, yet we don't quite think about these opportunities when we plan our trips and when we plan our meetings. I do understand that schedules are busy and maybe local media may not be as interested in these topics, but whatever we do, whatever more we do on this front, is going to be better than what we do right now.

We should not talk only to people who already understand the challenges we have as far as deterrence in the 21<sup>st</sup> century goes. We also need to take steps to build up nuclear weapons expertise in Europe. We often lament the decline of intellectual discourse in this country, and how we took an intellectual break from nuclear deterrence, but we still are a powerhouse as far as deterrence thinking goes and as far as knowledge about nuclear weapons policy goes.

Again, I've heard many compliments to the administration, both the Obama administration and the current administration, in terms of reaching out to allies and in terms of communicating with them throughout the NPR process on what are the important tenets of U.S. nuclear weapons policy and getting them involved to the extent possible in those processes. That's a good beginning that we should build on.

Another challenge on the horizon I think is countering Russian propaganda related to U.S. nuclear weapons modernization programs. We know it's coming, and I think it makes the educational aspect of these issues even more important. And we have good tools at our disposal. One of the best ones is to point to Russia's own actions that are so painfully felt by some Europeans today.

I think one of the great missed opportunities has been our inability to draw attention to Russia's problematic behavior. It's not just very obvious stuff like the INF Treaty violations, but it's little things like harassment of our Open Skies Treaty pilots. It's deployments well above New START limits. Even though the implementation period hasn't happened at that point, imagine what the public outcry would be if the United States did that. We wouldn't hear the end of it.

Things like deploying rail mobile ICBMs well outside of Russia's military bases and the more obvious violations of the CFE Treaty. Again, I think the 2018 NPR makes great progress in this effort, but we will need to continue to reiterate these problems and point to them to make people realize what it is that we're dealing with.

At the same time, I would be the first one to recognize that the Europeans do value when we reach out to the Russians. They value the United States as a constructive discussion partner, and we ought to be that. But we ought to recognize that we do not have a constructive partner on the other side. And by the way, we're not very good at communicating that fact to the others.

We have tried through different outreach programs. We had the Russians at our missile defense tests. We've tabled proposal after proposal after proposal that they said no to. Yet when you talk to Europeans, for the most part, they're not even aware of these efforts. Again, I think that's a grave missed opportunity of things that we have been doing that people are not aware of.

I also think that there is perhaps an opportunity to continue to build joint capabilities in terms of countering WMD threats. That may not necessarily be linked to

Russia, but just be generally making the Europeans more knowledgeable about the threat and making them more resilient in the face of it. Obviously that's a big task on more than one front, but it is a critical task for U.S. and allied security.

Again, if we cannot win the public debate it will be very difficult to sustain the U.S. forward deployed presence. It will be very difficult to modernize U.S. nuclear weapons, and U.S. nuclear warheads. I firmly believe that if we cannot get these tasks accomplished, we will all be less safe in the end.

Thank you so much.

(Applause).

MR. TOM KARAKO: Good morning. It's always a privilege to be here with you, as of course with my friend Michaela. As Michaela said, this is kind of a public service that Peter does, so thank you, Peter, for putting this on.

The context today, of course, is after the National Defense Strategy and the Nuclear Posture Review, and before the Missile Defense Review, but also before the forthcoming Army Air and Missile Defense Strategy. The broad subject for today is missile defense and nuclear forces with attention, as Peter said, to Europe and the Asia-Pacific. I'm going to come at this topic in a slightly different way, in a rather specific way, and that is in terms of distributed operations, which has some special implications for both of these two regions.

Let me suggest that the technique or principle of distribution or dispersal is especially important in an era of great power competition where we no longer have a monopoly on the ISR and precision guided strike complex, and that this principle is probably worthy of much wider application. Over the past few decades, while we were busy either taking the peace dividend in the holiday from history, or busy being distracted by the nevertheless necessary attention to counterterrorism, Russia and China have gone to school on the American way of war. One of the reasons why you're hearing so many officials talk so much about speed and going "faster" in terms of our acquisition and doctrinal processes, is that we've been late to realize that they have caught up, or are at least catching up, in many ways.

We are entering not really this new era of great power competition -- sometimes also called a second nuclear age -- but also a new missile age, one characterized by the wider availability of precision guided weapons across a wide spectrum that covers various ranges, trajectories, speeds and types of attack, with all manner of corresponding effects on how we do business. A missile-heavy threat set already forms the backbone of many A2AD problems that we encounter that complicate American power projection, and those complications are growing. This new operating environment has many more contested domains, and potential adversary integrated air defenses and precision strike weapons hold U.S. foreign bases at risk, complicate maneuver, and impair our freedom of action.

Unfortunately, the United States is not yet well postured against these kinds of complex integrated attacks, and without swift adaptation we will not be for the foreseeable future. In the face of all this, integrated air and missile defense has become more critical for joint operations. But so -- as the NPR emphasized -- so has the salience of nuclear deterrence.

Over the past several years service discussions have begun to take this into account. I would highlight a couple of efforts that are especially oriented at complicating the surveillance and targeting missions on the part of adversaries, especially those who are major power. For the Navy, they were first, the concept of Distributed Lethality, or variously, Distributed Maritime Operations. For the Army and Marines, Multi-Domain Battle, which is emphasizing fighting through the highly contested environment.

The principle that I'm trying to articulate is, in some ways, simple enough. In the face of these kinds of complex and integrated attacks, U.S. forces are simply all too vulnerable to being fixed, tracked and targeted. And not to put too fine a point on it, but they are also all too susceptible to suppression.

To over simplify, it's the American way of war turned back on us. The first thing the U.S. Air Force ordinarily tries to do -- except in Syria last week -- is to suppress enemy air defenses, either kinetically or non-kinetically. When you can no longer be invisible you have to disperse, and this distribution helps create survivability. This is why the Army and Marines in multi-domain battle were talking about fighting "through," creating temporary windows of superiority. But again, it goes to the adversary's surveillance and targeting problem.

I want to highlight a few passages from the National Defense Strategy that I think bear on this problem and I think support the idea of a wider application of distribution. It applies to conventional fires, air and missile defense operations, and perhaps in some ways to nuclear forces. It's the vulnerability to attack, and to precisely the vulnerability to suppression, that is the issue here.

For years we've talked about the problem of our foreign bases being iron mountains, which make for very tempting targets. So let me quote from the NDS. Emphasizing forward force maneuver and posture resilience, the NDS commits that "investments will prioritize ground, air, sea and space forces that can deploy, survive, operate, maneuver and regenerate in all domains while under attack." It then goes on to say that "transitioning from large centralized unhardened infrastructure to smaller dispersed resilient adaptive basing that includes active and passive defenses will be prioritized." It also talks about resilient and agile logistics, including distributed logistics.

In terms of missile threats specifically, it talks about disruptive capabilities for both theater missile threats and North Korean ballistic missile threats. I've yet to have somebody explain that passage to me. Theater missile threats and North Korean ballistic

missile threats is a bit of an odd dichotomy. Theater is a range or category, North Korea is something very specific. I choose to interpret it as the theater missiles of Russia and China.

The NDS also finally contains the injunctions first to be strategically predictable but operationally unpredictable; and second, to evolve innovative operational concepts. So let's talk about what operational, unpredictable and innovative operational concepts might look like applied to these topics. Let me emphasize that in terms of our current air and missile defense force, we have five basic flaws.

First, stovepipes of excellence, systems that do not talk to each other, or do not do so adequately. Too many single points of failure. If you want to take out the entire THAAD battery on the Korean peninsula, go after the TPY-2. If you want to take out a Patriot, go after its radar. There is exactly one, maybe three, radars upon which the entire Aegis Ashore architecture in Europe depends.

Second, too many single points of failure, not resilient. This is understandable when you're talking about little rogue state type threats. But if we're going to be serious about putting great powers and air and missile defense in the same sentence, we're going to have to think about that a different way.

A third basic flaw is the under focus on non-ballistic missile threats, or again the complex integrated attack problem broadly. Fourth, high cost interceptors and not very many of them. And fifth, an over reliance on sectored ground-based radars. It turns out the Earth is round and there's a lot of limitations to that.

Think about these single points of failure especially in terms of single aim points of failure. Insufficiently resilient and too easily suppressed. I'm just going to say that it's a damned disgrace that the integrated air and missile defense effort has been 30-plus years in the making. Even Van Wilder can get a college degree in eight years. All this talk about going faster, this is a primary for emphasizing that. It shouldn't take 25 years or 30 years to build a 360-degree radar.

So let me suggest a couple of ideas. The "net fires" concept that was circulating in the 1990s, or let's just say network centrism broadly, is the basic foundation for not really lots of integration, but also element dispersal. We can think about the elements that go into air and missile defense in a much more flexible and survivable way with that kind of integration at the foundation. Shooters can be separated from sensors. Everything can be more interconnected and more resilient.

Today, for instance, we have an Aegis Ashore site with a radar, some VLS tubes, some other things on site. But think about that on a much broader and much more resilient C2 network. Think about building an entire Aegis battle group on land with interconnectivity between the C2 stations like you have with some of our ICBM fields. Get rid of those single aim-points of failure.

The other big thing that needs to be emphasized here more is passive defense. Here again we get back to dispersal. It might be worth reconsidering the race track concept from the Peacekeeper basing modes that were thought about in the 1980s. We cannot let the other guy figure out where our critical elements are, and we have to find more innovative ways to deceive, to camouflage, and to conceal.

In addition to the element of dispersal that is the foundation of all this, in terms of concealment and camouflage, I would point especially to the idea of containerized launchers, rockets in boxes, and the passive defense shell game that that would permit, that that would enable. Think about a large forward operating base with Conex boxes distributed around it. Some would be full, some would have MREs, some would have rockets, offensive or defensive, but the enemy would have a heck of a time figuring out which was which.

The decoys could, of course, be equipped with some thermal, electronic and optical signatures as well, maybe even logistical signatures to complicate things. I don't pretend to articulate all the many wonderful, wonderful things that could be put into boxes, and otherwise contribute to a passive defense shell game, but there's a lot of opportunities here. Nor need this be limited to U.S. forces. I see some of our allies here in the room today, Polish and Romanian among others. They're pretty close to some of our major powers with whom we're competing, so think about this in terms of HIMARS so as to be less susceptible to suppression.

Now let me move to the nuclear side. In February the Nuclear Posture Review came out, a logical restrained application in light of changes in the security environment, with two modest supplements recommended. Most of the attention, and most of the huffing and puffing, has been focused on the low yield Trident. But the low yield weapon on the D5 is in some ways a bridge to the future, a bridge to LRSO.

But in the long term, it seems to me that the second supplement, which has actually not gotten as much attention, the sea-launched cruise missile is the much more significant modification, if we can get there. It does so, among other things, by increasing the aim points and launch points that an adversary has to deal with. The low yield D5 gives some flexibility in the short term, but the SLCM contributes to that more distributed or dispersed deterrent posture.

Unfortunately, most of the conversation about the SLCM has been in terms of INF as a potential bargaining chip, and I think that's a mistake. To be sure, the document said that we would consider foregoing the SLCM if Russia not only returned to INF compliance but also amended its ways in other respects. So while the document as written had that position, unfortunately the messaging and discussion has too frequently run in the direction of negotiating publicly with ourselves about under what conditions we might give up that paper missile that isn't yet built.

I don't think there's any reason to suppose that as today this is yet the bottom for U.S.-Russian relations. But that conversation about the SLCM too often presupposes

we're at the bottom, surely Russia will mend its ways, and we'll have an excuse to get rid of this. I don't think that's necessarily the case. And the NPR expressly talked about the need to hedge further should things continue to get worse.

So in the face of that, I would love to see the Department articulate the strategic utility of the SLCM a bit more boldly and publicly and forthrightly, if there is hope of it surviving, especially if there's a political change in Congress in the coming year. The strategic utility of the SLCM needs to be made more broadly and I think the rationale for that includes the principle of distribution.

To better appreciate this, consider the U.S. Navy nuclear force of the 1980s, which included nuclear Tomahawks on so many platforms. The NPR did not say what the platform would be for a future SLCM. There have been suggestions that a Virginia-class submarine, as opposed to surface ships, might be preferred. That's too early to say, but as I said, going about the basic strategic utility of this to contribute to complicating the surveillance and targeting problem of the other side, is at the core of this.

I would also point out that the NPR lists very nicely, usefully, 10 nuclear attributes that are required to fulfill the nuclear mission: survivable, forward deployable, diverse and graduated options, accurate delivery, penetrating, responsive, diversity of ranges, diversity of trajectories, visible and weapon reallocation. The principle of distribution certainly contributes to survivability, less well in terms of the other nine. But complicating the adversary's surveillance and targeting is an attribute that probably deserves more attention by itself.

So, INF range ground-launched cruise missiles, longer range conventional air-launched missiles like LRSSO, and the nuclear SLCM are some ways to get at this. The principle of more distributed operations has a lot of utility and deserves more application than just the Navy's principle of Distributed Lethality. More dispersed, concealed and survivable basing modes for offensive fires and perhaps even nuclear forces, can contribute to the overall defense and deterrence posture for the U.S. and our allies. I would invite folks to think more imaginatively and aggressively about how to boost survivability, to get inside the head of our potential great power adversaries, flip the cost curve back on them and create more uncertainty in that direction.

Thank you.

(Applause).

MR. CHIC FELDNER (ph): Chick Feldner, when you're looking at a pattern for bringing a modern and credible nuclear force back, have you done any thinking about where a Pershing-like system would fit into that algorithm?

MS. DODGE: I'll take this on policy, which I think a Pershing-like system would be, to me, on some levels preferable to a sea-based low yield option because it would indicate that we do have the political consensus within NATO to counter whatever Russia

is doing. By having a sea-based option, we are in a way signaling that we do not have that consensus, and that's very good to Russia because one of the reasons why they're violating the INF Treaty is to use it as a wedge and to sow more disagreement within NATO. So on a policy level, if we could get that agreement that would be great, but unfortunately I don't think we can, particularly considering that we are still signatory states to the INF Treaty. We have a very bad track record of getting other countries back into compliance and we have a pretty bad track record of over complying ourselves even though our potential adversaries are violating these treaties. So from a policy perspective, I just don't see a way to square that circle.

MR. FELDNER: So is there any chance of having NATO call for a Pershing answer, for nations inside NATO to call for such a response?

MS. DODGE: NATO can't even agree that Russia is a threat, so before NATO calls for a Pershing-like option, I'll be perfectly happy if NATO first says Russia is a threat to NATO.

MR. KARAKO: I'm going to come at this a little bit differently. We have to pick our battles. The NPR goes out of its way to say that the sea-launched cruise missile has the benefit of not requiring basing on some allies territory.

Some folks have reacted to that by saying that's bad, wanting their pound of flesh. That is to say, if we're going to have an extended deterrent for an ally, they'd better ante in by hosting the thing. I get that.

But if the goal here is deterrence, as opposed to merely getting our pound of flesh, maybe we don't need to have a battle over the Pershing. Maybe it's better to do the sea-basing. I don't see the utility of repeating that in terms of NATO, or frankly in the Asia-Pacific. If we can get the capability and put it out there in lots of different places, I think that would be fine.

MS. DODGE: It is totally true that it gives you more versatility and it gives you more survivability than a ground-based option. So there is that, in terms of what Tom was getting into, in terms of complicating your adversary's targeting.

MR. KARAKO: But that's not to say, especially if the INF Treaty goes away, that our Eastern European friends and our Asia-Pacific friends, couldn't or shouldn't or wouldn't get some conventional strike missiles of their own. In fact, they're already doing that.

MR. FELDNER: If I could, just one other point, hasn't the INF de facto already gone away? You have a treaty between two parties and one party says we're done with this, I'm not complying, it's over. What's the responsibility of the United States?

MR. KARAKO: The difference is that we care about the de jure quality of the treaty. The treaty still exists de jure, so we comply.

MR. HUESSY: David.

MR. : One of the features of extended nuclear deterrence in the past has been dual-capable aircraft and the sharing of roles and responsibilities with our allies directly. Frankly, I haven't kept up enough on it to know whether we even have dual-capable aircraft that we share responsibilities for nuclear alert in Europe anymore. Could you update us on whether that has happened, especially in light of your concerns about European involvement and consensus with our directions? That seems to be a perfect stage on which this has to be exercised daily. Talk about that.

MS. DODGE: Yes, we do have dual-capable aircraft. Allies have dual-capable aircraft. In the past couple of years the Air Force has made it a priority, to some extent, to improve the readiness of those dual-capable aircraft in Europe.

That being said, one of the reasons why we're proposing sea-launched options is because we are concerned about their survivability and about their ability to get to the target, particularly considering that the nuclear weapons they carry are very old. I don't think the concern is as much with dual-capable, although I'm sure it is, but it's also the weapons they carry are old. We're trying to figure out what to do with LRSO and how to go about the B-61 life extension program. Again, that's a weapon that has been in the arsenal for like two of my lifetimes. We just have all of these challenges, yet we are not willing to say, we need modern systems.

MR. KARAKO: First, I think the most obvious point would be on the F-35, faster please. But in terms of the discussion under consideration, I think the future is not going to be gravity bombs, but it's going to be cruise missiles. It's not the oldness of the B-61 design, it's the fact that it's a gravity bomb. That's what contributes to the penetration problem.

The B-61-12, as I've seen some folks here talking about there in the back, that is perfectly spiffy. But at the end of the day, if you can't get it there you're not going to be able to penetrate; or if the platforms are destroyed first. So here again, anti-aircraft just keeps getting better, and therefore the demand signal and the utility of standoff cruise missiles is going to keep going up.

MS. DODGE: I have an input on that. One of the great benefits of having nuclear weapons on the ground is the reminder of the U.S. political commitment to European allies. You cannot get the same effect with sea-based options.

MR. HUESSY: Eric.

MR. ERIC MICHAELS (ph): I'm kind of curious on the comment that you made about the unity of the alliance. One of the things that people miss today, because they don't know the history, is that the Germans had Pershing II missiles, and we were going to put -- just like the dual-use aircraft -- we were willing to put U.S. warheads on it. All

of the NATO alliance had Lance or some other weapons system, ground-based tactical missile, intermediate-range missile.

What it did is it forced the alliance to be an alliance, as opposed to going in four different directions to meet the threat. If we can't get an agreement on what the threat is now and how we're going to respond, what's the change of us ever getting release authority, and why do we believe the Russians believe we have deterrence?

MS. DODGE: Yes, that's exactly the problem. I think the German foreign ministry released the only statement that I've seen talking negatively about the 2018 Nuclear Posture Review. So while you had allies in Japan publishing a very strong statement of support for the 2018 NPR, the same with the South Koreans, it was the Germans who said this document is terrible, not in that way, but they were the ones kind of objecting to it.

Again, I agree with you. If NATO cannot agree on what the threat is, it just makes all the other tasks more challenging. I don't know how you get out of this schism in Europe where some members care more about immigration from Africa and the Middle East than they care about Russia. Some members only focus on Russia for various geopolitical reasons. If you don't have that unifying sense of threat, that's a problem. I will say, though, that it wasn't an easy task to get Pershings to Germany, either.

MR. : My dad was the public affairs officer with the Department of State at the time.

MS. DODGE: So you remember, right? You had the threat. You had an administration that had no qualms about calling out and naming what the threat is and communicating it to this audience and to NATO allies. I just don't see how we can get there absent some very negative security development. And by then, you wonder, will we have enough time to get our stuff together to be effective? I don't know.

MR. MICHAELS: If I could have one quick follow-up? Have you don't any studies in terms of European trade going both ways? I know that Russia sends a lot of natural gas to keep Europe warm in the winter. (In terms of the nuclear talks ?) have you looked at that whole economic, political trade?

MS. DODGE: It has been more than a decade that I've worked on energy security issues in Europe. So nothing recently, but you kind of wonder if you have the Baltic states connected to the Russian distribution network as opposed to the European distribution network, when you have the Germans cutting deals with the Russians, when you lack interconnectivity between different sources of LNG in Europe, it's a problem. It's a problem for the Europeans and it makes it easier for the Russians to have one of the tools to coerce the Europeans, to sow disunity within them.

MR. HUESSY: I'm going to tell a story about Margaret Thatcher that is

appropriate to this, as well as the natural gas. On Tuesday a group that I'm also aligned with called LNG Allies, we've had breakfast after breakfast on European natural gas issues and getting our gas to Europe and to the Baltics. In fact, we had all three ambassadors from the Baltic states here. They all were born when Ronald Reagan was president. They're all in their thirties.

They said, we believe in free enterprise and peace through strength. Would you please bring your natural gas through the Great Lakes on a ship, bring it to us, and then we'll turn Russia from a bully into a supplicant because we'll have an alternative source of natural gas? And by the way, Maryland is the first state that actually has a terminal that allows us to export natural gas. It was Harry Reid, God love him, one of the last things he did as Majority Leader.

He said, we'll go forward with allowing American to export natural gas, which was outlawed in 1975 because of the embargo, the Arab oil embargo, which was a crazy reaction. So we are in the process of getting there, but Michaela is very right. The Baltics said, we now are in a position where the Russians have us under their thumb. If you believe in peace through strength, as they said, and free enterprise, that should not be the case.

Now let me tell you the story about Margaret Thatcher. A group of people that I know during the Reagan administration went to see her. The State Department was over-represented in the group by about seven out of 10. They were going to persuade Margaret Thatcher to come off of the zero-zero option and just make a deal with the Russians. They went into 10 Downing Street and sat around. She came in and said, you have to understand my position is I do not go where the public is, I bring them where I want them to be, which is where I am. She proceeded to spend the next hour pounding the desk about why it is Reagan's zero-zero option was the way to go, and at the end of the hour said thank you very much and left.

That's the kind of leadership we need. I think we'll get there, but again, I'm always surprised that given the money the Russians put into the anti-Pershing and GLCM campaign, the popular opinion was way against the Pershings and GLCMs, that the Dutch, the Italians, the Germans and the British all came on. And guess what, the pope also said, nuclear weapons need to be curbed but I am not in favor of the nuclear freeze, which cut the argument out from under.

I remember going and debating the bishops, the folks who were in favor of the nuclear freeze. Everybody said we were going to lose this fight. You know what -- and it was because of groups like the Heritage Foundation and CSIS, those were the two most prominent groups in Washington that fought for the INF position of the president. I'm always amazed at how far you can move publics. It's a tough job, but that's part of the reason I invite these guys up here to speak.

I didn't mean to steal your thunder, but Thatcher is someone I admired enormously and I think that the INF history -- I wish someone would write the history of

her role and Reagan's role and call in the pope. John Sullivan did a little bit, but it was broader. I think he wrote a book called "The Pope, the Prime Minister and the President." He knew them all. It was an extraordinary book about the three.

So we have a prime minister. We don't have a pope on our side, unfortunately. We do have a president. So we'll get there.

I want to thank Michaela and Tom. Thank you very much for that. It's a tough subject you're dealing with, a very broad one, but I hope, particularly our staff people here from the Hill, got some help.

Also I was remiss in not saying hello to our friends from Malaysia, Romania, Japan, Belgium and Austria. Thank you, gentlemen., for being here today.

(Applause).

I'll see you next week. Steve Blank and Mark Schneider will give you everything you wanted to know about Russia.