

060719 Air Force Association Mitchell Institute for Aerospace Studies, National Defense Industrial Association, and Reserve Officers Association Capitol Hill Forum with James Acton, Co-Director of the Carnegie Endowment for International Studies' Nuclear Policy Program; and Elbridge Colby, director of the Center for a New American Security's Defense Program, on "Escalation and Limited Wars with China or Russia?"

(For additional information on AFA/NDIA/ROA seminars contact Peter Huessy at phuessy@afa.org).

MR. PETER HUESSY: Good morning, everybody. My name is Peter Huessy, and on behalf of the Mitchell Institute for Aerospace Studies, I want to welcome you to the next in our series of events. We've three upcoming events, two Space events, and then one nuclear.

On June 13 Colonel Purdy, who will talk about "Space Dominance and Space Superiority." On June 14th the new director of the Space Development Agency, Fred Kennedy, will be here. That's June 14th. The Chief of Staff of the Air Force, General Goldfein, will be here June 26th. I've left off a few, but those are our three upcoming ones.

We have two great speakers today. Elbridge Colby is the Director of the Defense Program at the Center for a New American Security, where he heads the work on defense issues. He was deputy assistant secretary of Defense for strategy and force development. In that role he served as the lead official in the development and roll-out of the department's strategic planning guidance, known as 2018 National Defense Strategy.

We also are going to hear from Jim Acton. He holds the Jessica Matthews Chair and is Co-Director of the Nuclear Policy Program at the Carnegie Endowment for International Peace. He's a physicist by training and his current research focuses on the escalation risks of advanced conventional weapons. His work on this subject includes the Carnegie edited volume called "Entanglement: Chinese and Russian Perspectives on Non-Nuclear Weapons and Nuclear Risks."

We're going to first hear from Elbridge and then Jim Acton. Would you please welcome our good friend Elbridge Colby?

(Applause).

MR. ELBRIDGE COLBY: Thanks, Peter. It's great to be back here in this fantastic series, and it's a real pleasure to be here with my good friend James Acton. If I were speaking second I would say something snarky, but since I'm speaking first I'm going to -- I am not, since he's going to have the chance to retaliate.

I guess we'll probably stand up here and do questions and answers. I think that

would be more interesting and more useful, from my point of view, so I'll keep my remarks brief. How to effectively fight a limited war, particularly a limited conventional war but also one that's going to be under the nuclear shadow, is essentially the top challenge for the Department of Defense and for our allies and partners going forward.

As the National Defense Strategy of 2018 and Secretary Shanahan has repeatedly made clear, and Secretary Mattis, we are now back in a period of great power competition. The fundamental challenge for the United States military and for our allies and partners is that the American military has lost its conventional edge with respect to -- I kind of prefer to call it -- the ragged edge of our alliance network. You could call them strategically significant, plausible scenarios, primarily places like Taiwan in the Pacific and the Baltics and Eastern Poland in Europe. This gives the opportunity and the rationale for China or Russia to potentially overtly use military force or start a war, but also to gain coercive leverage they could use by risking military conflict and so forth moving forward.

Particularly with China -- I'm going to say this in some testimony to the China Commission later this month -- China's incentive is to use what I call kind of a focused and sequential limited war strategy to try to corrode the alliance or coalition that is going to have to form in Asia to balance China's pursuit of regional hegemony, which I think is pretty clearly what China is going after. You can see it in the Indo-Pacific Strategy Report that DOD just put out as pretty clearly the U.S. government's view, and it's pretty obvious from their behavior.

Certainly the behavior of General Wei at Shangri La was pretty revealing about what kind of attitude they have, especially on the 30th anniversary of Tiananmen. Anyway, we can talk about that if you want. So, we have to be able to basically fight effectively. Our forces have to be able to fight effectively and defeat their strategy, but do so in a way that's politically plausible and credible.

We can't have a strategy -- we can't resuscitate massive retaliation because the other side has survivable nuclear forces and the stakes are too low. The stakes are important but they're not existential for us. So we need military forces that are adapted to that reality.

My basic view is the most effective strategy that both the Chinese and the Russians have, and this is the Department's view, is the *fait accompli*. The central problem for the Russians and the Chinese is that they face a coalition or alliance in both contexts that is actually stronger than they are, and even the United States alone in some respects. So, they have to find a way to fight a war without catalyzing the greater power of the coalitions potentially arrayed against them.

The ultimate way to do that is through direct action, the *fait accompli*. They can also use pressure strategies. Pressure strategies tend to be less efficacious, if you look at it historically, if you have very high demands.

So, the fait accompli against the ragged edge of the alliance architecture is the main problem. How does the Department of Defense need to go after it? Well, it needs to be able to fight and resolve the conflict without initiating nuclear Armageddon. That's the point.

The Chinese and the Russians are going to want us to think that they are ready and willing to go to nuclear Armageddon. That's why the Chinese -- every time somebody says, the Chinese would absolutely fight to the last man, as General Wei said over Taiwan, or they'd launch nuclear weapons over Taiwan, that is essentially a messaging campaign to try to get us to think that their resolve is absolute over this kind of contingency. We shouldn't believe that, but we should understand that their resolve is very high, and in some ways potentially higher than our own.

So, what is it that we need to do? Fundamentally, I think what the National Defense Strategy lays out is a denial defense approach. We are moving from a situation in which the American military was absolutely dominant over its potential opponents over equities we would care to fight about -- watch Desert Storm, watch Kosovo, watch 2003 -- to one in which our forces are going to be fighting adversaries that are great powers, and at least in the theater at issue, are in some ways going to be comparable, if not even locally superior.

So, we are going to need our forces to basically fight in a contested way. My colleague Chris Dougherty has got a superb report laying out the problem here, why we can't do the Desert Storm model any more, my colleague at CNAS. Basically we're going to have to fight in a contested environment in which the American military never attains -- basically, certainly in the decisive phases of the conflict -- never attains the level of dominance that it attained over Kosovo or Iraq or Afghanistan, but yet achieves the political objective.

And the political objective is denial. This might involve very aggressive moves. For instance, I think in any contingency involving the Chinese there are almost certainly going to have to be mainland strikes. I think anybody who goes around saying we can fight the Chinese in a major war without having mainland strikes is probably delusional.

But, we're still going to have to have reasonable methods of limitation. How we limit the war is going to be absolutely essential because it's basically going to resolve at some point. My core view, and I think the NDS points in this direction, is we have to leave the burden of escalation on them. That's how limited wars will tend to resolve.

If they escalate to the strategic nuclear level, it's very hard generally speaking to compel, to change meaningful material circumstances, with nuclear brinkmanship in particular. There's going to be a tendency, once you escalate to that level, for things to stay where they are. And so it's very, very, very important that our conventional forces be able to deny the fait accompli, because without the fait accompli there's nothing per se for the Russians, to use their "escalate to de-escalate" strategy, to ratify, or to compel us to accept. Similarly with the Chinese in Taiwan.

That's basically the problem as I see it. In my view, in my heart I'm a nuclear person, but I've gotten more into the broader defense strategy stuff, but I tend to think about, how do we array our conventional forces to win at this level? If you only fight the conventional war and you ignore the nuclear thing, the nuclear strategy is dominant if you're too vulnerable. So, our whole posture has to be oriented to deal with how things resolve at the end. Like in any negotiation you have to basically figure out how you would act if the other side really escalates.

That's basically the idea. That's why I think it's really crucial that the department is beginning to change. It could do more.

I think the Navy budget this year was pretty good. Things like the USVs, UUVs, maxing out on munitions like maritime TACTOM and long-range anti-ship missiles. The Army is starting to move, more on the concept level. The Marines and the Air Force are starting to move.

I've seen the '20 budget from the Air Force. I would have thought they would have moved further, but I've heard some very encouraging things from the Air Force in recent months, which leads me to think that '21 will be more encouraging. But basically what we want is, we want the force to do less day-to-day, particularly in the Middle East, but just everywhere the force should be doing less and restoring high-end readiness.

My corny way I look at it is, if you watch a movie about the American military today, it's probably about a fire base in Afghanistan. If you watched a movie about the American military in the late Cold War, which is kind of the model of success, the most famous movie was "Top Gun," which was about a training school. That's actually what we wanted the American military doing, going to Red Flag for the Air Force or Top Gun in the Navy.

You see some (encouraging moves there, for instance from NATO and Trident Juncture and so forth. So, doing less and then trying to figure out interactively among operational concept development, technology and posture, what is the right way to make this denial approach work, with the reality that our forces are going to be contested and are going to be under determined attack, certainly at the beginning. They need to be ready to fight and contest the fait accompli from the get-to.

And then, if it does get to the nuclear level, we need the capabilities and the strategy. I think the NPR nests well with the NDS. The new capability like the LYBM is an important, incremental, evolutionary capability that is designed to maintain our level or ability to discriminately exercise our limited options in the face of improvements in adversary IADS capabilities.

So, I'm happy to talk more about that and any of the specifics, but that's basically where I think we're going and where I think we need to go. We need to make sure we exercise discipline. I saw that CENTCOM is back on the wires today or yesterday

saying, we need X thousand more troops at CENTCOM.

No, we need fewer troops at CENTCOM. We need them to do less. We need a more focused approach to the global war on terror going forward, or whatever we're calling it now. It's obviously important, we can't just ignore it, but fundamentally the thing that could really change the world is losing a war to the Chinese, in particular, or the Russians.

That's what we need our military to do. We fundamentally need our military to be focused on preparing to fight, not in the gray zone. The gray zone interesting, but we have diplomats who work on that and intelligence officers. We have become accustomed to thinking that major war is not possible because the American military has been so dominant. If they lose that dominance, the world will change.

Nobody else in the United States, thankfully, has a monopoly on legitimate violence. So I would say, if you're a military professional or if you're a former military professional and you are working on these issues, it's a very exciting time. We actually have to figure out how to do this, or you have to figure out how to do this. Civilian policymakers and wonks and analysts can't do it, it's only people with professional expertise.

So, with that I look forward to James' talk and your questions.

(Applause).

MR. JAMES ACTON: Good morning, I greatly appreciate the invitation from Peter, as always, and it's always a great pleasure to be speaking with my friend Bridge. You know, Bridge tries to paint himself as this real hard core realist, but the truth is that when he adopts a strategy like not criticizing me in the hope that I'm not going to criticize him, it kind of betrays this charming belief in trust building and confidence building.

MR. COLBY: That's because I'm weaker.

MR. ACTON: It's because I've deterred you. So, there are three different escalation challenges that are related, as I see them. There is the challenge of limiting conventional war. There is the challenge of preventing nuclear first use. And then there's the challenge of limiting escalation in a nuclear war.

I'm going to focus on the middle one of those this morning, the issue of preventing first use. Let me just say, I actually very largely agree with Bridge about the problem of limiting conventional war. I think that is primarily a conventional problem, and preventing that fait accompli I think is critical.

All I'm going to say about the challenge of limiting a nuclear war is I have no idea whether it's possible to do so, but I think we ought to think about that and plan for

that. But that consequential step of avoiding the nuclear threshold being crossed is for me the critical one. And we have to worry about both deliberate escalation, that is a state choosing to use nuclear weapons to try and escalate out of a failed war, and we have to worry about inadvertent escalation. I'm going to address each one of those briefly.

In terms of deliberate escalation, the scenarios that I worry about -- and this is something we have to worry about from the perspective of planning -- is exactly the one that Bridge was describing. I'll focus on Russia, a Russian land grab against the Baltics and the rapid seizure of Baltic territory, followed by Russian nuclear threats to deter NATO intervention, possibly culminating in Russian nuclear use.

I think Bridge is exactly right. If you can prevent the fait accompli in the first place, you deny Russia the ability to threaten nuclear use. The question, though, is let's say we don't succeed in doing that. Let's say Russia is threatening to use nuclear weapons first. Or, rather, because I want to look at this through a deterrence lens, what nuclear capabilities do we want to be able to deter Russia from limited first use?

Presumably, Russian first use would be low yield and limited, and I agree with the point that we need something proportionate. I would point out that we already have two low yield nuclear weapons, the B-61 and the ALCM, which is being replaced by the LRSO. So the question is not do we need a low yield option at all, the question is do we need a third low yield option in the form of the low yield D5, and a fourth low yield option in the form of the SLCM?

Put yourself in Putin's shoes for a minute. What is it that would deter Putin from using nuclear weapons first in that scenario? Or rather, would deterrence be meaningfully enhanced by deploying the low yield D5, which I'll focus on?

There are two arguments made for the low yield D5. The first one is its faster response time. Assume that prior to the conflict, or during the conflict, the United States has readied aircraft to deliver the B-61 and/or the ALCM. The claim is that Putin is going to say to himself, if the U.S. has the low yield D5 they can retaliate in 15 minutes, then I'll be deterred, but if there's an aircraft outside ready to attack and it takes them 90 minutes or two hours to retaliate, then I'm not deterred. I don't think, from Putin's perspective, a fairly limited increase in the time would significantly undermine deterrence.

The second argument that's made in favor of the D5, which was the one I think Bridge was alluding to more, is the issue of Russian defenses. Let me assume for the sake of argument that Russia has defenses around some areas that can keep out all aircraft and missiles. And let me further assume for the sake of argument that in the conventional war preceding the nuclear phase we haven't attrited these defenses at all.

One could argue with both of those assumptions, but I'm prepared to make them for the sake of argument. Again, the idea that Putin is going to say that I have these islands that I can defend against nuclear weapons, but the whole of the rest of my country

is vulnerable and therefore I'm not going to worry about nuclear retaliation, seems to me to be a far-fetched argument. Ultimately, deterrence will fail, and Vladimir Putin will be willing to use nuclear weapons first, if he believes that the United States does not have the resolve to defend its allies.

From that perspective, I think we should be worrying much more about the president's decision when he was in Europe last year, standing on European soil, not to reaffirm NATO's Article V commitments. I think we should be much more worried about the president's comments explicitly saying he would not come to the defense of a NATO ally, Montenegro in this case, which cast doubt over his willingness to live up to the alliance as a whole. In terms of why deterrence is likely to fail, the president's stated unwillingness to meet defense commitments, seems to me, to be a bigger problem than whether we choose to have a third and fourth low yield warhead.

Now let me turn to the issue of inadvertent escalation. As I say, I think we have to worry about both the deliberate and the inadvertent here. Let me just highlight briefly two escalation mechanisms that I've been writing and thinking about.

The first one is that many U.S. nuclear command and control assets, and I suspect Russian and Chinese command and control assets as well (but that's harder to prove), are dual use. That is, they're used for both nuclear and non-nuclear operations. A capability like SBIRS, the U.S. early warning satellite constellation, and the legacy Defense Support Program System, is used both to detect incoming nuclear warheads, but also critical to detect a non-nuclear ballistic missile attack for regional missile defense.

At the same time Russia and China are developing capabilities to hold U.S. command and control assets at-risk. And all of us, the U.S., Russia and China, as part of our conventional war fighting doctrine, stress holding command and control assets at-risk. This is a destabilizing combination.

To give you an example, imagine that in a conflict against Russia, U.S. and allied missile defenses are proving successful in shooting down Russian non-nuclear ballistic missiles fired at regional targets. In that scenario, Russian strategists have talked about, as a way of defeating our missile defenses, attacking the early warning satellites that those missile defenses are cued by. But in the process, they would then be degrading the U.S. nuclear early warning architecture.

That may not be their intention, but it would be the effect of the attack. Similarly, I worry about a conflict in which Russia was attacking U.S. satellites in low Earth orbit, nothing to do with nukes at this stage. Imagine Russia is attacking U.S. satellites in low Earth orbit.

How does Russia see where U.S. satellites in low Earth orbit are? Well, the most important Russian assets for space situational awareness are Russia's early warning radars. So, one way we could potentially think about defending our non-nuclear satellites is by attacking Russian early warning radars. But that looks like an awful lot like

preparations for a nuclear attack, from the perspective of the Russians.

This goes both ways. In a related note, let me say very briefly I think dual-use weapons are a concern here. Russia has an enormous number of types of dual-use weapons, missiles and aircraft. China has dual-use aircraft, but it's dual-use missile forces are most significant. We've obviously invested more heavily in dual-use aircraft.

There's been a lot of discussion about post-launch ambiguity. I'm sure you will remember debates about the conventional Trident. If a Trident was launched could the other side distinguish whether it had a nuclear or conventional warhead?

I think an even bigger thing we have to worry about here is pre-launch ambiguity. Before a weapon is launched, do we know whether the Russians or Chinese weapons are nuclear or conventionally armed? Do they know whether our aircraft are nuclear or conventionally armed?

I think this really matters from the perspective of signaling. Nuclear signaling in a crisis would be an important tool, both for us to signal to them that we were considering using nuclear weapons if it ever got that far, and for them to signal that to us. The real complication here with dual-use weapons is what the signaling looks like in a conventional conflict with degraded ISR when you're trying to use dual-use weapons.

Do we miss signals that they're sending to us? Do we pick up signals they never intended to send, and vice-versa? Let me say there are no silver bullets to any of these inadvertent escalation risks. For reason's I'm not going to explain, I think you literally can't disentangle nuclear command and control even if you wanted to, and no one is going to stop flying dual-use weapons, even if I wanted them to.

I think this comes much more down to the problem of planning and preparing to fight a war and taking these risks into account the best way that you can before the war starts. Have we adequately thought about, for example, the risks of attacking Russian early warning radars? Does the person who is going to brief the president on that fully understand the benefits and risks and can he or she present them to the president so that the president can weigh them up?

From that perspective, I thought there were two important things in the House draft of the NDAA, which I strongly support. If it entered into law, it would require the secretary of defense to report on a plan for nuclear command and control modernization, looking at various different ways of doing that modernization that could enhance resilience. I thought that was a positive step forward. And then there's report language about asking DOD essentially how it thinks about the problem of inadvertent nuclear war. I think those were two positive steps in that direction.

With that, I thank you for the time and thank you for the invitation and I very much look forward to disagreeing with Bridge.

(Applause).

MR. : My question is for you, Mr. Acton. In the Cold War prior to 1980 there was no intention of conventional superiority in Europe. The plan, and it was stated, General Blanchard, I heard him talk about it, is if the Russians cross the line we were going to nuke them. We were going to run like hell to the Rhine River, blow the bridges, and keep nuking them.

Therefore, we had forward deployed nuclear weapons in West Germany. The Germans had the Pershing launchers that were going to use them. Why don't we do a similar strategy today in Eastern Europe?

MR. ACTON: I would say this, because in the Cold War conventional inferiority was, to a large degree, not a choice. Today, our conventional inferiority around the Baltics is a choice. I think it's a bad choice, and I think it's a choice we should reverse.

I would rather nuclear options never came into play. I would rather Russia didn't do the conventional land grab in the first place. I don't think to deter Russia from that land grab we need a war winning force in the Baltics, which would be pretty enormous.

You know, if you look at the war games that have been done repeatedly, and Bridge will know these better than I do, at the moment the Russians could get to Tallin in say two or three days with minimum numbers of casualties. That is the classic condition in which conventional deterrence fails, in which the other side believes it can execute a rapid and bloodless fait accompli with minimal cost. What I believe we should be trying to do around the Baltics is ensure that if Russia invades it will be costly and it will be bloody and it will take them 10 or 20 days to get to Tallin with tens of thousands of casualties.

That wouldn't completely guarantee to deter the attack, but it would raise the threshold enormously. I think that is, by far, a more effective way of dealing with the real security challenge we face around the Baltics, than additional nuclear weapon capabilities.

MR. COLBY: I essentially agree with all of that, but I would just say a couple of things. The stakes are lower today than they were in the Cold War and there are far fewer nuclear weapons in Europe. First of all, less in the later part of the Cold War, but for most of the Cold War, it was better dead than red.

That was kind of the word here in the Republican Club, that was something that Republicans or John Birch people said more, but most people said I don't want a repeat of what happened with the Nazis. These guys shoot people in the basement of Lubyanka on a regular basis. So people were willing, people thought, this is worth risking nuclear Armageddon.

Secondly, for all the talk about flexible response, and this is Frank Gavin, the

historian's point, as you point out until the end of the Cold War there were nuclear weapons littered all over Europe. I actually think what happened in the Cold War -- and many of you know this better than I -- is basically our aspiration was conventional defense, but really what we had was a posture that was designed to make nuclear escalation more credible when the Soviets had parity. So second offset-type stuff was integrated -- and Tom and I have talked about this for a long time -- the conventional efforts were integrated with the nuclear efforts. I love Bob Work to death, but he tends to talk about the conventional side, but there was also a nuclear piece that was basically designed to smooth the escalatory path that the Soviets would had to initiate.

That leads me to the thing I wanted to say on James' point. Yes, we want them to suffer casualties. We also want them to be forced to attack you in a much bigger way, because then that makes you angrier and more willing to do the things that you want.

I remember a couple of years ago there were former Soviet generals and officers who came through town, and I asked one of them, why didn't you take more advantage of your conventional superiority when you had parity in the '70s and '80s? He said, we gamed the hell out of this thing, but we couldn't figure out a way to start a war that wouldn't go to general nuclear war. But that was a deliberate policy -- and that's essentially -- the ideal is to deny the fait accompli. On Taiwan, I think that's feasible. If we're properly prepared for an amphibious assault, it's really hard. I think in the case of Russia, ideally you deny it but realistically it's going to be a delay-degrade, which is to say you're going to up their costs, you're going to make it harder for them, they're going to have to come in a lot bigger, and then that's going to catalyze our resolve. Everybody is going to see, yeah, these guys are a bunch of barbarians, okay we're going to go the distance needed to address it.

MR. ACTON: This is very disappointing, you and I agree. The bloodier the conventional war is, the more credible the resort to nukes becomes. So, I agree you can't disentangle those two.

MR. TOM ERHARDT: Tom Erhardt, thank you for doing this. These guys are way out on the leading edge of this stuff. I hope everyone appreciates what they're doing here. Both of you guys, the thing I respect the most is that you really know, you're experts at what it is that you do. You're not just talking in broad terms like so many people do about the reemergence of major power competition.

I just wanted to say that you're attempting to pull this debate to a higher level, and in that I'm all for it. I just wanted to comment on a couple of things. Number one, James, you talked about what deters Putin. All three of the things that you talked about are seriously important. It's not so much what Trump says, in my view, because when you read what the Russians say about what deters them, they're generally derisive about NATO and American political leadership when it comes to what they might do in a crisis.

What they are afraid of, and what they constantly talk about being afraid of, is the American military. So, this gets to what Bridge is talking about, which is how do we

posture that American military to most effectively deter the Russian military, and by doing that -- Putin; in order to make all of this happen? I think this is where we find a major gap.

The major gap here is that the Department of Defense is behind, despite the NDS. And I would disagree with you, James, just on this. They haven't done anything since we wrote the document. That's unfortunate. The document is fantastic, we just haven't done what we need to be doing in terms of posturing ourselves.

I'd like you to talk a little bit about what are the kinds of deployment postures, exercises, the exercising of the postures, that might be more helpful in deterring all three of the things that you talked about, but especially how do we limit that first use of a nuclear weapon? Because, they do not think like the Russians did in the '80s, which I thought was very careful, very afraid, we war gamed it and it went to nuclear war. I think they're much more aggressive and it's a worst strategic environment. Could you comment on just what could the American military do to improve its ability to do all three of the things that you talked about. It especially refers to conventional deterrence and limited use -- keeping first use (from happening)?

MR. COLBY: Thank you, first of all, Tom. You're very generous and obviously have been a big influence on me. I'm sure James, too.

I'm kind of a glass half-full person on the NDS, maybe because I'm naïve, in the sense that I do see more clarity and I see in the service budgets evidence of movement. Many of you are former military officers, including you yourself, Tom. I see people beginning to grapple with it and wanting to start to get their hands on it. You wouldn't see immediate changes because the NDS does not say here is the solution. It says, here is the problem you should be grappling with. When the Secretary of Defense gets up in his posture hearings and says the fait accompli is the problem the Department needs to focus on; and in the Indo-Pacific Report says the fait accompli is the problem you need to focus on, that is clarity, man. That is real clarity.

People out there are going to talk about, no, the problem is the gray zone and everything is global and blah, blah, blah, blah, blah. No, it's the fait accompli and it's the possibility of military defeat in a plausible scenario. And then, people are wrestling with the issues.

The three things I mentioned, which you know better than I: operational concepts, technology, and posture, at a minimum, those are three of the things we should say; we don't want the Maginot Line for obvious reasons, but we also don't want the Maginot Line because we have multi-theater requirements in peacetime and in a contingency setting. So, I totally agree with you, and as you know I pushed hard, and there's (elasticity ?) for a stronger deterrent posture in Europe. We have done some things.

It's better than it was three or four years ago. Some of the stuff that used to be in EDI, as I understand was in the '20 budget, is now in the service budgets because they're

doing stuff that would cover it. I don't fully understand it, but there has been progress.

My understanding is the Army is starting to think much more about exercising some of the new capabilities, especially now that we're out of the INF. I mean, I wouldn't be in favor of a Pershing III type of thing, but I do think things that are at the shorter end of INF that are conventional only should be totally fair game in Europe. As well, obviously, in Asia, everything.

But I'm still in a little bit of a wait and see mode. I think the Army is moving actually pretty well compared to where it was under previous leadership. I mean, I give General Milley a lot of credit and McCarthy and Esper and the whole Night Court thing.

The Navy is moving, as I mentioned. I mean, there's the two carrier buy, but the carrier is kind of -- there's a lot of -- it's more complex as you know better than most people. You've written things on the air wing. I would like to see more on the air wing. We don't know exactly what's going on, obviously.

The Marines, I see them really wrestling with the global operating model and how to operate effectively. You see a lot in the press. Essentially, I think what Mattis wanted is O4s, O5s and O6s wrestling with it on the pages of War on the Rocks or something, and saying, what does this mean in the Indo-Pacific? How do Marines operate differently? What's the new Ellis model or what have you?

I think the Air Force got wrapped around the axle on the 386 thing personally. I'm not against a bigger Air Force, but why don't we figure out what we need first? But from what I hear, I see some encouraging stuff.

In Europe, my sense is, and I'd really beat up on the Germans on this because I think we as a community cannot let them off the hook. In some sense, the political relationship is so toxic. But when you step back and you look, the Germans are spending 1.2 percent of the GDP on defense, which is grotesquely below what they should. They are the richest, largest economy in Europe. Nobody benefited more from NATO than they did.

The German defense minister talks about looking at capabilities, not expenditures. But the capabilities are a worse story for them. In 1988 they had 12 active divisions on the inner-German border and three in ready reserve. Now they don't have one, and they won't give that protection to the people of the East, frankly, whom they ravaged in the 1940s. And then they have the gall to come here and talk about history.

I know there are many Germans who agree with me. I did a piece in German, actually, on this history point and got a lot of good feedback. But I think the near-term thing is that the Americans will cover them on trying to build up a force that can get there ready, resilient, lethal, and can move quickly to defend the Baltics.

The Ochmanek standard good, 2,500 armored vehicles in the first three days.

Dave knows this stuff better than I do. That's a reasonable standard, I guess, something like that as an orienting point.

And then over time, the Europeans need to step up, the Germans in particular, and then the rest will nest behind them and then we can focus more on the Pacific. We'll stay engaged in Europe, we'll have some forces there, and we can get forces there. We can cover them in the near-term, but they have to -- that's kind of my vision and that's what the NDS was trying to say.

MR. ACTON: Firstly, there's nobody I learn more from talking to and who challenges my thinking more than Tom. What would I partially disagree with you about? I entirely agree Russia looks with derision at NATO decision-making. I mean, it's hard to disagree with that.

I think I agree with you that what deters is ultimately the U.S. military. The problem is, of course, that the president is the commander in chief of the U.S. military. It is Russia's belief that if all hell broke loose in Europe, that regardless of what NATO agreed to or couldn't agree to internally, that the U.S. military would ultimately pick up the slack, I think is critical. That's why I find the president's comments about NATO so worrying.

I agree with Bridge, Europeans, including Germany, needs to do their share. I've got no problems pushing them towards that. But I think doing it in a way that fundamentally questions the U.S. commitment to NATO is ultimately going to be counterproductive.

In terms of what this practically looks like, I was kind of hoping Bridge and I could find something to argue about this morning, but I thought enhanced forward presence was a very good idea. I thought the European Reassurance Initiative was a good idea. That's exactly the stuff we need to be doing more of.

MR. : This is the kind of clarity that you two bring to this that I think is important. Enhanced forward presence became important when the U.S., the British, and the French were involved in enhanced forward presence because for the Russians those were the nuclear states. So many Americans that I run into don't understand that Canada being there is just kind of nice to have. That's what speaks to the Russians, regardless of what we all think about nuclear.

MR. ACTON: In terms of other stuff that looks practical, and this is not a training or an exercise thing, I just want to say, because this is like my personal hobby horse. On nuclear command and control we're going to be making decisions over the next five or 10 years that are going to affect the shape of the command and control architecture for 30, 40, 50 -- I don't know exactly how long, but a very long time. Much of our command and control architecture has been focused on the very real and important problem of insuring it survives as long as possible through a nuclear war. You worry a

lot about EMP hardening.

If my argument about the nuclear command and control architecture being degraded over the course of a conventional war is a real problem, the kind of resilience you need against that is very different from the kind of resilience you need to survive through a nuclear war. Those two things both need to be taken into account. I worry, based on what I see from the outside -- and there may be a whole lot of stuff below the surface I don't know about -- but we're still very much focused on the important problem of surviving through a nuclear war, and we're not giving nearly enough thought to surviving through a conventional war before you get to the nuclear war part.

If there's one thought I have been trying to inject into DOD and into the people that deal with stuff, it's you need to consider both of these problems in designing the future command and control architecture. The technical solutions actually look quite different from one another, and combining them together is a real challenge.

MR. : You spoke about Putin having this concept of having a couple of spots that are very well defended and still being worried about the rest of Russia. I want to question that, insofar as there's a huge historical precedent for Russian leaders letting vast swaths of territory become (occupied ?) going back to the Soviets and further. I think that regardless of the very strict details of it, the arc of that can't be understated. I wanted you to think about that, because we spend a lot of time mirror-imaging and the U.S. is much more casualty adverse. We don't have the stomach for it, in a lot of ways, and it leads us in the wrong direction.

The other thing is we're talking about posturing for limited wars, but what does the actual chess match look like? It gets to a very tactical question, and I don't want to go that far, but it's different in Eastern Europe versus in the South China Sea or Taiwan. The pace of operations is different, the way that you get assets in theater are different. So, I just wanted to get your ideas about, if we got into a hot shooting match, how would it stop? What are your perspectives on that? Those are my two questions.

MR. ACTON: I'll leave the second one to you. That's much more your area of expertise. On the first one, if Russia uses nuclear weapons in a limited way first -- and that's very much the problem I am focusing on here -- the purpose of our limited use in response is all about raising the risk that this is going to go catastrophic.

Ultimately what is going to deter -- I think it's really important we never get to this point, is the first thing to say. But if we do, we're not using tactical nuclear weapons as a form of super artillery to try to defeat Russian tanks on the battlefield, to win the war by brute force. It's about raising the risk in order to try to get them to back down, which was exactly Putin's logic in using nukes in the first place.

If that's the logic behind our use of nuclear weapons in response to their use of nuclear weapons, I would argue that whether or not we're able to penetrate a few of these highly defended islands, it beggars belief for me that there are not meaningful targets we

could hit that would demonstrate our resolve, that were not so highly defended. Putting a B-61 off in the middle of the tundra in Siberia may not do the job, right? And this is where it's very hard for somebody without clearances, without the detailed maps of Russia and exactly where the sensors are and blah, blah, blah, to tell you exactly what the right targets are. But it is hard for me to believe that there are not meaningful and significant targets, almost certainly military in my opinion at this stage, that we could not reach that would not send out the right message.

MR. COLBY: This is where James and I disagree. This is what is called differences among strategists. I think our framework is actually quite similar, but there's a different assessment of risk and rewards.

I agree with you that nuclear weapons are primarily political and strategic weapons. However, there is a benefit to their having military utility, particularly at the conventional level, although it could also be at the tactical nuclear level. Because what the Russians are most likely to do, the most damaging employment they could -- the most dangerous use would be to use a nuclear weapon that was a signal, but also really knocks back or short-circuits our conventional fight.

They have the local conventional advantage, but if we flow our forces in long enough, we'll eventually beat them. But if they sense it's a (stop the war ?) thing, they could do a demonstration shot. But with a demonstration shot you just keep going, right? But if they start knocking down your ability to rectify the battle conventionally, then that has a real impact.

So really what we want, and this is where I think over time our nuclear forces should evolve, is not -- and this was the case I made last fall -- not a significant increase. I'm not worried about numbers. A modest number of capabilities for militarily significant, at particularly the conventional and theater level, tactical or whatever nuclear weapon, that actually would help.

That's why I'm more interested in the LYBM. I'm not interested in the time of flight, I'm interested in being able to put it on target. The less you have to escalate, in addition to the nuclear signal, the better off you are. You want to put as little weight as possible and you want to basically even the game, if you can. And by the way, it could be useful for us in a first use scenario in the Pacific against the Chinese if we lose our conventional advantage, which we don't want to. That's our primary focus.

I'd also say just on the Russians, it's true historically that they have used General Winter and stuff. I'm not the world's expert on Russia, for sure, but first, they didn't have a better alternative; and, secondly, my understanding today is that they regard themselves as being considerably more fragile, partially because of the relative weakness of the Russian state, but also because the nature of their military technology.

What the Russians really fear, to Tom's point, is a conventional aerospace assault that's backed by nuclear weapons and so forth. That could basically take down their

defenses, and then they would essentially be supine at our feet. So that ability to give 1,000 miles of road between Minsk and Moscow, I don't think they see the military map in the same way. Those distances have become compressed because of (technological ?) strides and so forth.

To your second question about war (strategy ?), this is huge. Right now I call it the boa constrictor strategy. It's not actually right. I need to think of the right metaphor.

Basically what we want to do is we want to put the opponent in a situation where their local objective has been denied and they face a choice. Do they want to keep pursuing it, expanding the war in a way that essentially worsens their geopolitical and military situation, or do they settle for a limited defeat. Let's say it's a Chinese invasion fleet and the Chinese navy is sunk around Taiwan, or back in port having blown up at pier-side or whatever.

They say, I could launch a massive society-wide (barrage ?) against the Americans. But everybody will say they started it, it's totally unreasonable. By the way, I guess we'd really see what they're made of, so we'd really need to worry; or, they could launch.

And again, people say, they're going to go nuclear over Taiwan. What are they going to do? Are they going to blow up Guam? Then we're really going to be angry.

They're the first ones to cross the nuclear threshold in 75 years, when we just used conventional weapons to defend democratic people on Taiwan, who they were trying to starve out? That's not a good situation either. So, that's how I guess you terminate a war.

MR. HUESSY: The House Armed Services Committee, one of the parts of it, has said the proper response to Russian nuclear use is everything. The implication is, Bruce Blair said, we'd just keep fighting conventionally. Mike Turner said, what if the Russians come at you again with nukes? And he said, keep fighting conventionally. As General Chilton said at this forum earlier in the year, the explosive power of nukes versus conventional is we don't have enough airplanes even in World War II, even though we produced I think 800,000 of them, believe it or not, of all kinds.

So my question is, both of you seem to think that a response to Russian nuclear use should be, if we go nuclear, some kind of limited use to terminate things and keep the status quo ante, albeit the old underlying conflict and casualties and a mess. That's my first question. It is not a question of responding, that the only reasonable response is everything, and to me that's kind of what we've been trying to get away from with Kennedy's flexible response and Schlesinger's counterforce capabilities. It's not credible.

The second issue is more practical. In the budgets that you see going to Congress, with respect to the Chinese theater and the East European theater, what should be in the

budget Or, what is crucial that they keep in the budget and when it goes through Congress it's still there?

MR. ACTON: On the first point I largely agree. As I said, once we cross the nuclear threshold I don't know what's going to happen. And I'm not somebody who is remotely sanguine about managing escalation. On the other hand, I do think if we ever got to that situation the president will be pretty pissed off if there wasn't some kind of theory and planning in place for that scenario.

I think going all out nuclear after limited nuclear use would almost certainly be a mistake. And I think not having options for limited use would be a mistake. So I agree with that.

I'm going to defer to Bridge largely on the question of conventional -- what needs to be in the budget. Here I'm going to kind of do what Tom hates, and just be general and airy-fairy and high level. The military goal for me for NATO around the Baltics is to ensure that a Russian attack would be horrific and bloody, even if they won.

We're having this conversation on almost the 75th anniversary of D-Day, which doesn't let us forget quite how difficult a sea-borne invasion is. The Taiwan the Straits are wider than the channel. So, one wants to be able to deny China the ability to do that invasion. Those are my military goals, and Bridge can tell you exactly what capabilities you need to achieve them.

MR. COLBY: Well, not exactly. On your first point I thought that letter was -- I actually wrote a few friends who were signatories and said guys, this is kind of stupid. The overwhelming response, I love that, is like -- first of all, it's not only incredible, it would be ethically stupid and irresponsible for us to respond to a limited strike, like it would be inhumane. We haven't done it. We've had limited options forever, through Democratic and Republican administrations.

And the other thing is, the people who are least credible -- if Dwight Eisenhower were signing that letter I might say, well now; or Larry Welsh, who doesn't believe in limited nuclear war. I respectfully disagree with him. That's one thing. But the people on the letter are the people who are least likely to actually support such a total strike, so it's obviously a bluff. So, I don't think it's very productive.

I think the real argument is, on the margin is LYBM. We have limited options. It's important. The way people should have said it was, the risk of uncontrolled escalation. I don't think even that's enough because I think somebody like Putin is a savvy guy and if he values something he might think, I know these people aren't going to (authorize use ?).

What do we need in the budget? There's a lot of things. I think really key are munitions, and munitions oriented on the stressing contingencies. So, not just Small Diameter Bomb, but long-range anti-ship munitions, JASSM. Frankly I don't even know

who produces them, so I'm not playing favorites.

But JASSM, maritime TACTOM, basically systems that can penetrate contested and defended airspace, make their way through, and kill enemy ships, enemy tanks, enemy armored vehicles in a Taiwan or Russia scenario. Systems that can do that, survivable naval platforms. Things like the SSN is important, and we need more of them.

I'm glad the Navy is building things like an USV that offers new things. There was a whole debate about the F-15X and the F-35. New concepts of having kind of an arsenal plane or a truck. These seem like reasonable approaches. I don't know all the specifics.

Obviously you need long-range penetrating strike in some capacity, in whatever model that turns out to be. Even though you're not going to be able to do Iraq 2003, you're still going to need to get into their airspace and knock them hard. So, those are the things.

And then I would like to see less of other things. I would like to see -- ideally I'd like to see some force structure reductions, particularly in the forces that are less optimized for the Pacific. I'd like to see less -- but that's hard, and the Congress puts stuff back in. The Department tried to not refuel the Truman. They'll have to figure out how to do that.

But I will say, there's some folks like MacKenzie Eaglen and Rick Berger who wrote this piece War on the Rocks that was sort of critical of the NDS, basically saying we should spend more on defense because -- and we've had this discussion in the past -- we should spend more on defense because we can't expect the U.S. government to be strategic. Stop doing things in the Middle East. I'm sitting here in the Republican Club and I think: the taxpayer should expect more.

We can do strategic. Dwight Eisenhower was strategic. The '70s second offset was strategic. We can do better.

I wouldn't support a higher defense budget if we're just going to fritter it away on dumb exercises that we've been doing, that we invented in the '90s and we're just doing because we've been doing them. No, focus up on maintaining the war fighting edge and conventional deterrence (in these scenarios ?) and strategic deterrence. With that, I could say to the American people, yes you should spend more money. But without it, I'm not so sure.

MR. : Regarding North Korea, how long does it take for them to de-nuke completely? Let's just say they have six or seven facilities.

MR. HUESSY: Six or seven hundred.

MR. : I don't think they will, but I'm just asking.

MR. ACTON: You've asked me this question before and I've answered it, but 10 to 15 years. This is a huge, long, complex process. I mean, it's not going to happen, but if it did it would be an exceptionally huge, long, complex, multi- multi- multi-year process.

MR. HUESSY: Both of you have done exactly what I hoped you would do when I asked you to come speak. This kind of discussion is critical. Thank you for your contributions. We'll type it up, transcribe it, and get it to you because I think it will be useful for some of our Hill people, some of our committee people, because these are tough debates.

There's no silver bullet, as you said, but there is some silver thinking going on, which is to move this paradigm. We get caught in paradigms that get us down wrong rabbit holes. I say that as someone who in 1969 came back from Korea and went to work for Gaylord Nelson.

The first thing he said was, what do you know about UNRA? I said, what? He said, I want you to write a speech -- he actually asked our defense liaison, a captain in the Navy he had borrowed. Dennis was on a R&R trip with his fiance, and he said this is your job. Write a speech by Monday. It was Friday night. I went to Marjory Wilson over at the Library of Congress who ran the Foreign Affairs Division, and she had written her Ph.D. thesis on the subject.

Gaylord Nelson's issue was that UNRA was running refugee camps which were basically recruitment centers for the PLO, for terrorism. He said, we need to shut them down. That was in 1970, when he gave a speech before the Senate. He came back and said, I guarantee nobody is going to pay any attention to this, and nobody did.

This president is the first president to say we're cutting UNRA out. It takes -- you can do the math, half a century. I was 19, and now I'm 69, that's how long.

All I'm saying is, to answer your question, we've got to figure out how to think well, and we can. That's why I do this breakfast series. Any of you who have people who you would like to have speak, we'd like to sponsor it.

I've done almost 2,000 of these since 1983. The reason is, the media doesn't cover a lot of these things. They're more interested in the Kardashians. I say that seriously. Go do a Google on some of this stuff.

But anyway, thank you both.

MR. ACTON: Thank you.

MR. COLBY: Thank you.

(Applause).

MR. HUESSY: Thank you all for attending. You make it possible. We will see you next week.