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FEATURING

Admiral Christopher W. Grady

Vice Chairman of the Joint Chiefs of Staff

CSIS EXPERTS

John J. Hamre

President and CEO, CSIS

Seth G. Jones

Senior Vice President and Director of the International Security Program, CSIS

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John J. Hamre: OK, folks. Great. I hope you felt that last panel was really – it was so interesting, and I'm so glad that you were able to hear it, but in a way it kind of builds up to now what is going to be a very important conversation with the vice chairman.

You know, when – early when I first started working in the Senate Armed Services Committee was when we were – they were working on Goldwater-Nichols, and there was a huge debate. You know, there was no vice chairman in the past, and there was a desire to have a vice chairman, but the question was what is his protocol status. And back then there were four services, and so there were – bringing a vice chairman would add the sixth person in the room. But is the vice chairman number two or is he number six? And we had a raging debate about that because, you know, there was interesting division within the services over the soundness of Goldwater-Nichols. Fortunately, we made exactly the right decision – not me, but the senators and the representatives. And it's because of that the vice chairman is now such a vital, crucial actor in the system. And he is – you know, he's really the chief operating officer, you know, and he is every day working all the tough issues that keep this going forward every day. Every day.

And we're so lucky to have Admiral Grady in that role. He comes from a Navy family. His dad was in the Navy when he was commissioned. And of course, he's risen to be, you know, the very pinnacle of service. And it's because of the strength of his character and the quality of his intellect that he's been lifted up to this level, and we're all going to be the beneficiaries of that just now.

So let me turn to you, Seth, for a more formal introduction. Admiral Grady, thank you. Delighted to have you here.

Admiral Christopher W. Grady: Thank you, sir.

Seth G. Jones: Thank you very much, Dr. Hamre. Thank you very much, Admiral Grady, for coming.

As everyone is aware, Admiral Grady is the 12th vice chairman of the Joint Chiefs. Is this capacity – and we're going to talk about that early on. He's a member of the Joint Chiefs and the nation's second-highest-ranking military officer.

What I wanted to begin, before handing the floor to you, is to congratulate you after a tough beginning of the football season at Notre Dame. I was there around the Marshall low on campus and there was clearly a feeling of desperation on campus, but the Notre Dame football team responded. So,

anyway, congratulations on a – on a good ending of the season and a victorious bowl game, too.

Adm. Grady: Yeah. You're only as good as your next season, though, so.

Dr. Jones: That's true. OK.

Well, thank you for coming. Appreciate it.

Just wanted to start off, really, with your introductory remarks, including framing how you see the job as vice chairman, including your support to the chairman.

Adm. Grady: Sure. Well, first of all, let me thank CSIS, Dr. Hamre, and you, Dr. Jones, for having me. It's a real pleasure to be here with each and every one of you. Thank you for taking the time to be here to exchange ideas. I think what you do here at CSIS is really important, because it helps – it helps the entire apparatus kind of think through all the tough issues. And you help shape that in many, many ways. So I thank you for that, and I thank you in advance for continuing to do that.

So a little bit about the vice chairmanship. It is a very unique position. I really feel like I stand in the intersection of – or, you could look at it as a Venn diagram, where in the middle is the vice chairman. And it's this intersection of policy, of resourcing, of acquisition, and budget. I think unique to the team in the Pentagon, I play in all of those spheres. So you can see me as DepSecDef Secretary Hicks, who's spectacular by the way, as her best battle buddy, I think, at the DMAG, or at the Workforce Council. I play at the NSC on the Deputy's Committee. The co-chair of the Nuclear Weapons Council. Certainly, in the tank as a member of the Joint Chiefs of Staff.

Of course, that all leads to the JROC. I'll talk about that in a minute, the Joint Requirements Oversight Council, and how important that is, back to one of those four worlds that I talked about in terms of the requirements piece. And what you may not know, but what I think is really important, as the 12th vice chairman, I am in fact the first for whom it's a four-year job, not a two. And I cannot be the chairman, right? And I think there's power in that, right? And I'm not worried about the next job. Well, maybe after this. (Laughter.) I don't know what that's going to look like. But I think that gives me a little independence to provide that forceful backup to the chairman, the deputy, and the secretary.

So how do I do that? So I have strategic framework in my head that I'd like to sketch out for you. There are three end states that I think the vice chairman can achieve. The first is joint force overmatch now and in the future. And I think the "now and in the future" piece is really important because there's

this constant tension between current readiness and future readiness. I'll talk a little bit about that later.

The second is dominant decision advantage, and bringing that to the – to the department and, more particularly, to the joint force. To be honest with you, thought that would be a foundational principle that I could build on when it came to the building. It wasn't there. So I want to use this next three years I have to try to achieve that. Think JADC2 or how we bring data to the foundry as we make decisions for the budget process.

And then lastly, is we need warriors that can fight and win. That's the people piece. Four lines of effort to get to that. The first is provide best military advice. I think that makes sense. The next is drive force design and force development. The third is to data-enable the force and the foundry. What is the force and the foundry? I speak about and think about my job through two lenses. The force is the going out, and fighting, and winning. The foundry is everything that enables it.

And back to those four roles, I think I stand squarely in the middle of all of those. So we talk about how do we data-enable the fight, the force. Think JADC2. But then how also do I bring data to the foundry to make the best possible decisions we can make from a budgetary perspective? And then the last is to create a culture of excellence that gives us those warriors we have.

There are three tenets that I think are foundational across all those lines of effort, really, really important. First is to support the chairman. I am the vice chairman and it's important for me to carry, particularly as a member of the – when I go to the National Security Council – to carry his position forward. But also to provide that forceful backup in private. And we have a great relationship that allows me to do that. I also think, secondly, that I have to integrate across three axes. The first axis I think is across echelon. So all the way from the Pentagon all the way down to the deck plate, where our service members operate.

Then you might think of the X-axis as across all domains, really important to integrate across all domains. And then the final one, which ties to the third tenet which is the importance of our allies and partners, is to integrate across all of our allies and partners. Maybe that's the Z-axis. And how you define allies and partners I think is really important. Certainly, within the joint force, with our OSD colleagues, into the interagency. How important is that for a whole-of-government approach? Out to our allies and partners, many of whom are in uniform. I'm so delighted to see many of them here today and to be such a big part of your – of your seminar over the two days. And then into industry and academia. I think you can see yourself there in that – in that third axis.

So we do have this straight line, then, from the National Security Strategy to the National Defense Strategy to the National Military Strategy. Those are kind of here's what we want to have done, and then the "how" is the Joint War Fighting Concept. And we can talk about that later, if you wish. We've had 1.0. We finished 2.0. 3.0 was just signed out and briefed to the secretary yesterday. And what's important about this is it will now be transitioned into Joint Pub 1. It will become doctrine. It's the first time that we've been in a position to do that and I think that's what will drive change within the joint force.

The other key element of the Joint Warfighting Concept 3.0 that we just signed out is the linkage to the JROC and that is the concept-required capabilities that are explicitly listed in the Joint Warfighting Concept. Those then drive action to the JROC.

Let me tell you where I think we are with the JROC, the Joint Requirements Oversight Council. I'm really proud of the work that we do there with vices of all the services. There are four things that I think you should know about the JROC.

First, building on the shoulders of my predecessors – folks like Sandy Winnefeld or Paul Selva or John Hyten – we have gotten away from, hey, bring me your widget and I will approve it in the JROC to here's the requirement – stakeholder, tell me how you're going to fill that requirement. That's a big change and that is a big putting over of the rudder, if you will, going forward.

The next is we have to stop thinking about things in stovepipes, whether it's a system or a capability, but we have to think about it in terms of portfolios.

So now we have instituted the concept portfolio management reviews that bring all elements together across a particular challenge set. The linkage of that then to what Bill LaPlante and his team are doing in acquisition – in the integrated acquisition portfolio reviews that's being done now but not in serial but in parallel so we can go faster in the acquisition process.

And the final thing – and this is going to take me three years to do it – is I want to put teeth into the JROC. We sign out a lot of documents and we say you're going to do a lot of things. We ask stakeholders to do a lot. Are we actually doing those things?

And to kind of wrap up my prepared remarks, just a note on the center of the universe and that is our soldiers, our sailors, our airmen, our Marines, and our Guardians. You know, the further you get away from the waterfront the harder it is to remember that it's all about the center of the universe. It's setting them up for success.

So on those really hard days, you know, you have to have an image in your head of why am I doing this, and I have my own image. This is the eight-inch gun crew of the USS New York circa 1898. That's my image, and all I have to do is look up at the wall and go, that's why I'm doing it.

So over to you.

Dr. Jones: Great. Well, thank you. You've hit on a couple of themes that we're going to go into a little more detail about.

I want to take your initial comment on the Joint Warfighting Concept but bring it to some of the issues that we're talking about today, which is the war in Ukraine.

So, from your perspective, first, you know, there's been a lot of discussion about environments, contested logistics, long-range fire, precision strike.

What are the – as you look at the way the war has transpired in Ukraine what do you take to be some of the major lessons in warfighting? As you've been thinking about this from a joint warfighting concept how do you see practically, empirically, from what we're seeing in Ukraine what you take to be some of the major lessons?

Adm. Grady: Yeah. First, the Joint Warfighting Concept – you just hit on what we call the four key battles for advantage. Now, the Joint Warfighting Concept is very classified but I can talk about the four key battles for advantage and those are to achieve information advantage, to maintain command and control in all environments, to conduct long-range fires, and then to be able to sustain in a joint contested logistics environment.

So many of the things that you just talked about we're seeing play out in the Ukraine situation right now. I'll get to that in a second. But first to note it is highly classified but we have been writing it to release. So when I look over here at my colleagues, we will have releasable versions of this so that we can go along back to that integration across three axes we should be able to integrate because they have so many great ideas and we want to – we want to move along well with them.

So in Ukraine, a – I think some of the lessons learned – I'm sure you've been kicking these around, but a central tenet of the Joint Warfighting Concept is maneuver. We are a maneuver force all the way back to, you know, Valley Forge and the rest. We are a maneuver force and that's absolutely critical.

Are we seeing maneuver in Ukraine? Not so much, right, and so the question then is do we want to get into this or do we want – what we need to do is get

out of this artillery battle of attrition that looks a lot like World War I and enable our Ukrainian partners – the heroes that are in Ukraine – to bring the tenets of combined armed warfare and maneuver to kind of break where we are now. So maneuver is absolutely critical going forward. And so, then, how do we enable that?

Logistics, contested logistics. Tactics are fun, but it's in logistics that war is won. And that's both sustainment and logistics, right.

And so the ability then to – you know, at the tactical level to keep lines of communication open, absolutely critical; a tenet of war that has not – that has been completely validated by what we see in Ukraine; but then the ability to keep the front fighting and the ability of the team, the unity of not just NATO, all the NATO partners playing, but the 50-some-odd that are contributing to that fight, to provide the sustainment and the logistics to keep that fight going.

And I would look at it in a couple of capacities. One is, here's the stuff you need to go do it. We'll give you that. We'll help you. We'll train you to do that. You already know how to use some of it, perhaps; but then how we flow that in, keep that flowing. And then additionally, if a tube goes down, can you fix it? Can you maintain it? And the secretary has – it's probably no surprise, given his background as an Army officer and a former CENTCOM, has been ruthless with us about don't just give it to them; make sure that they're trained and that they can sustain even in that contested environment.

C2, very, very important, and one of the key battles for advantage. I think the Ukrainians are doing it really, really well. And they have thought about it in a very innovative way, right. In many respects they've weaponized the iPhone, if you will. So C2 in contested environments is also something that we are perhaps not learning but relearning as we see it play out. And he who can do that better, I think, will win. And I think they're doing it very, very well.

So those are some aspects of the joint warfighting concept that you see play out. We could also say long-range fires, right. And so getting beyond artillery to things like HIMARS and some of the other things that are important are game changers on the battlefield.

Dr. Jones: So just sticking with this topic for a little bit, there's been a lot of discussion focused, including in the media, about the support that the U.S. has given to the ground war. Can you talk a little bit about the maritime dimension of this or even the air dimension more broadly in the EUCOM AOR or even around the Black Sea? What are we doing to support the effort in those dimensions, including in the naval dimension?

Adm. Grady: Yeah, sure.

Well, I would say, first, in the air domain, that as we think about how we support our Ukrainian friends, the number one priority right now is air defense. How do we sustain their air-defense capability that they have now? And if and when there is this offensive, how then do they execute air defense as their troops move to contact and hopefully to success? So that's the number one priority right now, another lesson that we already know exists.

The challenge there, of course, is the expenditure rates and the fact that they had – our Ukrainians had a lot of old Soviet systems. Those will be expended over time. So what comes next? And that's the number one priority right now as we support it.

Air defense writ large in Europe, I think, really can take advantage of the high-end capabilities of the NATO alliance, so everything from air policing to what we do at sea coming off the carrier. That's a pretty well-developed mission. But it all starts with domain awareness. How well can we see? You can't shoot anything if you can't see it. And so domain awareness across all domains, I would tell you, in Ukraine is also another very high priority.

A new element of the air domain is the counter UAS. So there's a little bit of Spanish civil war playing out here, I think. And it's probably something that you've talked about at great length. And so what does air defense mean in a counter-UAS environment? And we're going to have to get really good at that going forward. That's a new changing-character-of-warfare element that we're going to have to recognize.

In the maritime, here's what I really think is important about what we see happening in Europe – and we'll use NATO as an idea – and that is, and particularly as they drive to Vilnius with their new – as they think about C2 adaptation. As my time as the 6th Fleet commander, we stood up – there was a recognition that it's a 360 problem in Europe; so certainly in the Baltics. The Arctic you could have mentioned as well, especially with Finland. Congratulations to them, and welcome aboard. So the Arctic –

Dr. Jones: And Sweden hopefully soon too.

Adm. Grady: Let's hope so. Let's hope so – by Vilnius, I would hope. We'll see. But, you know, from the Arctic, to the – to the Black Sea, the Baltic in between, and certainly the Mediterranean, and now the Atlantic – that 360 view that you can't take your eye off it. The advanced submarine threats that launch land-attack cruise missiles has been a wake-up call, I think. And so this 360 view that requires the maritime is really important. And as the 6th fleet commander, my very best day was when I had a ship in the high north, in the Black Sea, in the Baltic, in the Mediterranean and, oh by the way, down in the

Gulf of Guinea. Hard to do. A lot of battle space. But it reflects that understanding of the 360 view and the threats that come from it.

The United States, as an example, recognized that, and re-stood up Second Fleet, as you recall. So we brought Second Fleet back into existence. And then the stand-up with Joint Forces Command Norfolk, which is all about the Atlantic and the ability to strengthen that transatlantic link. So I think the maritime, it's challenging in a continental environment. Sea-blindness is a problem. But I think NATO has – and across the board – has recognized that this 360 view kind of lands in the maritime.

Dr. Jones: And I do want to remind everyone, both virtually joining us as well as in the room, is please ask questions. So for those online, we have a place on the website where you can type in your questions. I've got them on the iPad right here. For those in the room, we got a QR code on the sheet on your desk. So feel free to type those in, ask questions. And I will pull them up here momentarily.

I wanted to talk a little bit about – we've talked to the Poles as part of the session this morning with the ambassador. We've been speaking recently to the frontline states, the Finns, now the Baltic states. Just sticking with the maritime dimension, what are your thoughts on how to reinforce what are clearly concerned security pictures from the frontline states? I mean, even from the maritime perspective you can get carriers into or around the Baltic states. So how do we – you talk about air defense – but how do we help reinforce those states in an environment where we're now at war, the Russians have invaded Ukraine, there clearly is anxiety among any of the frontline states that border Russia. What are your thoughts right now on how to bolster some of those frontline states, the eastern flank, which are in a different position than a year or a year and a half ago?

Adm. Grady: Yeah, sure. Well, I think the alliance has done a really good job at adjusting their force posture with things like the EFPs – and, first of all, to our Polish colleagues, thank you for everything that you are doing. You are truly there on the front line, leading the charge. Couldn't be done without you. It's just remarkable. You really are – you really are heroes.

But as we think about the – bolstering the EFPs, as we think about what has to happen on the eastern flank, as we think about what's going to be codified at Vilnius, I hope, in this idea of being able to go from battalion to brigade at a very quick notice, the new force structure, I think that is a – my understanding is that's a really important outcome from the Vilnius meeting coming up here this summer. So I think all team players, now all 31, are working together to think about how do you provide assurances and deterrence in the land domain.

In the sea domain, it's certainly the same. The Baltics is a very challenging operating area. As the Sixth Fleet commander we did BaltOps up there for six weeks. You can't get a carrier in there. Submarines are equally challenging as well. So you have to think differently about defense, and you have to think differently about power projection. So you can use 44 strike fighters coming off a carrier. That's one way to do it. And you can, oh, by the way, do that and support the allies from outside the Baltic. That is doable.

So what are other forms of power projection that could best be brought to bear or change the calculus? You could think land-attack cruise missiles. You could think Marines. Nothing like, you know, 1,000 devil dogs coming off. And we do that and practice that regularly in BaltOps. So we're just going to have to think and act differently up there, given the challenges. And especially now, as this is the real advantage, I think, of Finland joining, right? And so access to their bases as this evolves and they think through their level of support. And one of the strongest militaries now within the NATO alliance, so congratulations to them. And then how we work together with them to create dilemmas for potential adversaries, I think it's pretty exciting, and a lot of that starts in the Baltic and in the Arctic, for that matter.

Dr. Jones: One issue that has emerged – probably reemerged – from the situation in Ukraine has also been a little bit of the saber-rattling that the Russians have done on the nuclear side, as well. How does that impact your thinking – whether it's in the European theater or in the Indo-Pacific – about nuclear deterrence, or how do we think through countries – could be the Russians, could be the Chinese – the way the Russians have approached the talk publicly about nuclear issues has evolved, the dynamics? So what are your thoughts on how nuclear issues have evolved somewhat, how it has impacted deterrence? How do you think about it?

Adm. Grady: Yeah, sure. You know, I think nuclear weapons are a reality that we're going to have to live with, and deterrence – you know, I think it's a function of at least four things, right? One is capacity and capability. The second is credibility. The third is communication, and I think the fourth is kind of a cognitive thing – let me get to the fourth one last.

So on the capability and capacity piece, you see the United States investing in the modernization of the Triad, right, so the Columbia in the – all three legs of the Triad – very, very important; number one priority for the Department of Defense and all the services as you might expect. On plan I'm happy to say, and it becomes the number one priority. So we have that robust capability that is thus credible.

Then you have to communicate it, and so how do you do that? I think you are transparent, your policies are well understood, and then your operations activities and investments I think have to reflect your commitment to

deterrence, and I think the department and the Joint Force is doing that very, very well.

It should be understood that deterrence underlies all of our operational plans. You must have that, and it must be credible and combat capable; otherwise, those other plans are really challenged in this execution. It underpins all of those, and I know I'm speaking on behalf of the STRATCOM commander on that one.

Dr. Jones: That's OK. We just had him in here.

Adm. Grady: Yeah, he's fantastic.

And I guess the last thing gets to deterrence, two adversaries now with Russia and with China, and it gets to the cognitive piece, so we talked about capability and capacity, credibility, communications, and then the cognitive piece. This is working that is going to have to be done. So in the past, many of you theorists here helped us think through how do you deter one great power adversary with nuclear weapons. The question now is how do you do that with two great power adversaries, and I would submit to you it's probably not the same, and a lot of thinking needs to go into that, whether it's here or within the department. And so that's where we're – that's where we're thinking that through for sure.

And back to Ukraine, Russia is a nuclear power, and so that's always on the table.

Dr. Jones: On the Russians – and then we'll broaden it to a couple of other issues – industrial base, Indo-Pacific –

Adm. Grady: Sure.

Dr. Jones: – and others – what is your sense of – I mean, the Russians have clearly struggled. Their ability to have combined arms has not gone well. Their ability to do contested logistics, RAU – there's just a whole range of issues, particularly with the army.

Adm. Grady: Yes.

Dr. Jones: Five to ten years – what's your sense about where the Russians may be headed? What are your thoughts, and will they be able to – are they pushing to rebound, to rejuvenate? We've clearly seen the Chinese and the Russians willing to meet, and the Chinese have provided some assistance – could provide more to help rejuvenate the Russian industrial base, but where do you see the Russians headed over the next kind of years? How weak do you expect them to be? Or how much do you expect to see an attempt to

rejuvenate?

Adm. Grady: Yeah, great question. Well, let's kind of go back to the challenges that they have had; certainly combined arms warfare – or the maneuver warfare as we talked about. The things that we expected to see that we didn't, and just may now be happening: EW, cyberattacks on critical infrastructure, we're now seeing all that play out. C2 – clearly a challenge, lots of drama there that you read about in the – but cyberattacks, all of that. So interesting that a lot of that wasn't put into play.

I also think that the Russians had looked at their elite forces and their performance in other places around the world and said, yeah, we're good at that and we can, thus, translate that into Ukraine. Maybe not so much.

Dr. Jones: Not so much.

Adm. Grady: It did not play and it did not pay off.

Here's what I'll say about the Russians, though: They are a learning adversary and it would be folly on our part to expect that they will not learn here. We see them learn in the fight now, to the extent we can discuss it, even tactically and technologically. They learn and they learn fast. And so you talk about a weakened state, particularly in the – in the land domain. Perhaps, but they will learn, and they will learn fast, and they will apply lots of resource to that. So for us, I think then we should not underestimate, and expect that they will learn and that they will reconstitute very quickly.

As to the Chinese relationship, if you will, certainly a strategic relationship. Xi and Putin just met. My assessment, though – this is just Chris Grady's view – is they may be back to back; I don't know whether they're shoulder to shoulder yet, but that may be coming. The secretary, in his comments last week, was asked about this, and I think he used the word troublesome and concerning, and he's exactly right. I'm fully behind him on that. So we're going to have to watch this.

You mentioned that they might be able to help with the defense industrial base. They certainly have the economic might to do that. They have yet to provide lethal aid. We will be watching that very closely as well. But it is, as the secretary said, troublesome.

Dr. Jones: So, speaking of the industrial base, this starts to span into the Indo-Pacific. There have been some challenges. There were efforts, clearly, from defense companies to ramp up. The stockpiles on some weapons systems declined somewhat. We saw that on Stingers and Javelins.

Adm. Grady: Sure.

Dr. Jones: And equipment breaks down. You run through munitions in some cases at extraordinary rates. Certainly, we see that with the Ukrainians and the Russians. So what is your sense about the industrial base now and how well we're prepared for the environment that we're in? And how do you see us – we've talked to Bill LaPlante about this and I know he's been – made a number of comments publicly as well, but how – where are we headed along those lines, as well?

Adm. Grady: Yeah. Thanks.

So I think you're correct that the fragility of the industrial base is something that has been stressed during the Ukrainian challenge. I think there's three – at least three contributing factors to the industrial base that we have now.

The first is the contraction of the industrial base. How many shipyards did we have? Twenty-five or so. Now we're down to about six. And how that, then, translates into competition and big primes and single-source within the supply chain, that's a challenge.

Dr. Jones: Like engines, for example.

Adm. Grady: Certainly engines or who makes 1-5-5, as an example. So there's this contraction of the industrial base that happened, perhaps, during the peace dividend years, right?

The second thing is the complexity of what we build. And so, you know, in World War II we were pumping out Liberty ships, one every three days. You're not going to do that with an SSN or an SSGN. It's just too hard to do. And so, to maintain an industrial base that has the right number of artisans to create these complex systems at speed is going to be a challenge.

And I think the third is just this just-in-time. So if I'm in industry in the – in the '90s/early 2000s, that made a lot of sense, right? There's a good profit margin that could be there. That's a phase-zero peacetime mode. It's not necessarily, I think as we're seeing now, going to pay off in a phase three or in the fight that we see now.

So now I think the question will be: How do we incentivize an industrial base that will allow us to find the right answer – it's going to be a hybrid, I think – in terms of how much do we need in a stockpile and what do we need from a hot production or a warm production line? So how do – how do we incentivize this?

You know, I was brainstorming. What are the attributes that we want from our industrial base, right? And so Secretary Hicks and Bill LaPlante and his

team have been leading this. But I just jotted down a few that were kind of important to me. One is you want an industrial base that has competition. One is you want an industrial base where private capital can flow freely back and forth. You want those supply chains that are robust and are diversified and are trusted; a big question right now. You want innovators to have a space in there so that we can move faster.

It has to rely – and we should think about a larger industrial base isn't just the U.S., but with our allies and partners as the industrial base. You have to have that workforce that is seen as the excellent artisans that they are. It has to be a hardened industrial base and has to be a 21st century foundry, right. If we're going to get into the digital age, then we need to have a 21st century foundry. And in the end, it has to be one that can surge.

So I just jotted those down. We could debate those left and right. The question then is, how do we incentivize to do that? And that's the work that DEFSEC and Bill and his team are working on. The Defense Production Act Article 3 authorities are now in place, some of the waivers that we need. That's a good step in the right direction.

Dr. Jones: So one aspect of this has been this discussion about the – two of the main theaters that the U.S. is operating, one in the U.S. European Command AOR; the other is in the Indo-Pacific.

Adm. Grady: Right.

Dr. Jones: One first kind of strategic question: How are you with an ongoing war in Ukraine and a prioritization of the National Defense Strategy on China and the Indo-Pacific, and a Marine Corps that has clearly shifted to the Indo-Pacific with General Berger's Force Design 2030? How are you thinking about deterring and continuing with the support in an ongoing war in Europe, but also deterrence and effective activities in the Indo-Pacific?

I raise this in part because we certainly heard from some of our European colleagues. Some worry that our support in Europe is likely to be short term as we move towards the Indo-Pacific. So how do you see that balance?

Adm. Grady: Yeah, certainly a valid concern. First, let me just say this up front. Our commitment to Europe and to NATO and the transatlantic alliance is rock solid. I do not see us wavering from that in any way. The unity that we have shown in support for Ukraine will continue. And so I am very confident that we will continue in that vein. Again, the United States wouldn't have brought 2nd Fleet back to life if they didn't think it was that important. So let me just get that one out of the way. We are there in the transatlantic alliance. This is as important, if not more so, than it ever has been.

I think there is balance. So back to Venn diagrams, right. If you were to look at what do you need for a Ukraine fight, what do you need for a Taiwan fight, there is some commonality. I think early on in this dialogue there was perhaps a counternarrative that one was at the expense of the other. It isn't that closely aligned. But in some cases it is. And so, for instance, it's not going to be an artillery fight in Taiwan as we enable them to porcupine up, if you will. But at the same time, counter-UAS and UAS will be there; HIMARS; the ability to do coastal defense.

Dr. Jones: Like GBLRS (sic; GMLRS).

Adm. Grady: GMLRS and that kind of thing. But it's also a maritime fight, which you're not going to see in Ukraine; so very different fights. So there is some intersection, but they are also different. And so I think we can do both. I think we can track and balance the requirements that we need to maintain that transatlantic alliance, to continue to support our Ukrainian friends, and actually use that as an opportunity to inject into the industrial base what we need.

You mentioned a couple that we're also going to need there. So this is an opportunity then to rethink how we're going to talk about GMLRS or coastal-defense cruise missiles that we kind of put together for our Ukrainian friends, and use that as an opportunity then to surge in – to revitalize the defense-industrial base for the Taiwan fight.

So I think we can do both. It will be a balance. That's what SECDEF and the president get paid the big bucks for. We will provide the best military advice on how we think that should go, and then we'll decide where we're going to – where we will take more risk or less. But I think the NDS is pretty clear. And it does say China, but it also says Russia.

Dr. Jones: On the – on the China front one area that we have been involved in at the Center for Strategic International Studies is doing unclassified war games to support in part a range of the other classified games that have gone on within the department and within the FFRDCs and others. Our most – one of our most recently published – publicly published war games, which we ran 24 different iterations of, one of the things it highlighted, going back to the industrial base, was a need, for example, for munitions, particularly longer-range strikes. So we run out in some of those war games of LRASMs in a matter of a week or so. So what's your sense about the state of that challenge and how to start to fill that gap?

Adm. Grady: Yeah. It's a very real challenge and it gets to the Defense Industrial Base that we've been talking about.

Let me just talk about war gaming for a second, if I could, though.

Dr. Jones: Yeah.

Adm. Grady: Thank you for that work. Really, really important. And even the work at the unclassified level just bring such great insights. So I would encourage you to keep doing it. And the ability for you to then iterate into branches and sequels and try this and try that, really important.

And let me just spin to one thing I'm trying to get done in the next three years. If you think about that line of effort, which is data enable the force and the foundry, part of that is modeling in sim, and I think there's a capability that we really need to have in the department. And so I'm going to spend the next three years trying to build a robust capability that will allow us across war gaming to experimentation and the rest – that will allow us to do those iterations that you talk about.

Now, back to your question. I don't think those are – I don't think the results that you found there are wrong. I think –

Dr. Jones: Or new, in many ways, too.

Adm. Grady: Or new. So I think there's good understanding that we're going to – if we're in that kind of fight it's going to go fast. And so back then to how much is in the stockpile and how quickly you can regenerate them.

The bigger picture in all of this – I think the biggest issue is we always underestimate how much we're going to shoot, right. We did in Libya for sure. I think we, certainly, did in precision-guided munitions in the Middle East. We went through those very quickly. As a strike group commander I remember shooting Hellfires at guys on motorcycles, right. I mean, OK, well, that's a pretty expensive weapon for that. (Laughter.) Worked, though. It was pretty effective. (Laughter.)

But so we always underestimate that, and so to the chairman's great credit – he's always out ahead of us – he has directed all of the COCOMs through the J4 on the Joint Staff to revalidate with some kind of sanguine, realistic analysis what our ammunition requirements are going to be.

I guarantee they will be – the work that comes back will be higher than what we have in our OPLANs right now.

Dr. Jones: Before going to questions I did want to touch on an issue that I know you've been working on, which is the modernization of the force.

Adm. Grady: Right.

Dr. Jones: So, obviously, war – the nature of war, in many ways, doesn't necessarily change but parts of – you know, characteristics may change to some degree. You've been working on force design, force development, integrating data, broader implications of the digital force, and fostering a culture of excellence.

How are you thinking about the modernization of the force over the next several years?

Adm. Grady: Yeah. It gets back to that joint force overmatch now and in the future, and if you read the unclassified version of the National Military Strategy the central challenge, I think, in that is how rapidly can the joint force modernize for the future fight while maintaining what it needs for the current fight, while maintaining what it needs to deter. That's the central challenge of the National Military Strategy.

And so the modernization challenge is one where we don't want to fight the last war. We want to fight the next war. We want to have an understanding of where we have competitive advantage and where we can either maintain it or increase that.

And so the budget that you see that includes not only historic numbers in R&D and S&T to help us get there from the – kind of the foundational piece to the investments that are being made in those high-end capabilities that will be required against the high-end adversaries, doing that while we, perhaps, eliminate or retire those things that aren't applicable to that high-end fight.

That's the risk calculus that we're undertaking right now. It is a challenge. COCOMs have to – have to fight now. Services want to be able to set them up to fight in the future. And that's a large part of the deliberations that happen in the tank with the chairman, and that we present to the – that we present to the – to the DMAG. Not easy decisions.

And I think it really speaks to the larger strategic challenge that we have, which is kind of this idea of simultaneity. You know, we were the unipower for a long time, but that was a historic anomaly. Now we're back, I think, to the real world where there are various powers who don't have the ability to outgun or necessarily outspend the adversary. So now that requires ruthless prioritization and strategic discipline to get there – another tenet of the National Military Strategy. So it's that constant balance then of what we need now and what we need in the future in what we anticipate will be the high-end fight.

And then leveraging key technologies. We talked about counter-unmanned systems. Notice I didn't say just UAS, but unmanned systems in all domains. Back to integrating –

Dr. Jones: Underwater –

Adm. Grady: Underwater and surface as well. Hypersonics, the appropriate mix of hypersonics and conventional cruise missiles, long-range precision strike, the ability to command and control that faster than the enemy and C2. How we leverage things like AI on top of that, so command and control system. Or quantum, and how we bring that together. So the 14 priorities that Secretary Shyu has the department looking at are good places to start going forward.

I would also say that all the modernization efforts have to be measured against the Joint War Fighting Concept and how we're going to succeed in those four key battles for advantage. And that's the work of the JROC. We take those concept-required capabilities and we look to – we look to modernize the force so that we can win that high-end fight. Again, not the last fight, the next fight.

Dr. Jones: So I'm going to channel my inner Andy Marshall here, the former head of Office of Net Assessments, along these lines. How does the way you're thinking about force modernization – how is that impacted by what you're seeing coming particularly out of Beijing right now, and how they are working on modernizing their force? How much of this is also, you know, a competitive landscape, that it needs to be done because they're making changes as well?

Adm. Grady: Yeah. It drives that. And I think Andy would be happy with that. So as we lay their ability, their kill chain, their kill web, whatever you want to call it, against ours, then looking for those competitive advantages is how we – how we need to think about it. Every decision that – I think, every decision that the secretary, or the chairman, or the president needs to make should be threat-informed, risk-based, and data-enabled.

Starts with the threat, and so we have to have a good understanding of what they're doing now and where they are going. And I think the apparatus that we have to help us understand that is pretty solid and pretty strong. So we can do that comparative analysis, lay the two together, look for competitive advantages. One that we have now and we have to maintain is examples in the undersea domain, for sure. That comes from a really good, strong analysis of that competitive advantage.

Dr. Jones: So before getting you to get crystal ball out and tell us what the Notre Dame football record will be next year, we've got a question from someone in the audience, Byron Callan, on weapons programs: Still moving at glacial speed.

What can be done to speed that up? For example, what would have to be done to cut procurement time from contract award, for example, in half, say, for the F-35 or SSN. How do we decrease that procurement time?

Adm. Grady: Yeah. So I think the big question there is we're too slow. That's what my friend here is telling us. So how do – how do we go faster? Well, first, I think it starts with we have to be a good customer, right? So we have to write a very good requirement. We have to have a good understanding. We have to communicate that to – we have to communicate that to industry. And I think the services are working really hard to – really hard to do that.

But I think there's some things that have – I would put it as in serial as opposed to in parallel. So a lot of things that we have done in the past has been in serial. We do this, then we do this, and then we come to the end and we have achieved the end stat that we're shooting for. Let me give you an example of that, and that's testing, right? So if we can do and embed the testing apparatus in the acquisition process, as we work our way along, such that when we're ready at the very end all we have to do is that final test, as opposed to then starting the whole testing process. Where did this work really, really well? I would submit it was in the B-21. Worked really well there. So thinking less in terms of serial execution of the acquisition process and more in terms of parallel.

How do we thus? I think another way is how do you – how do you leverage the adaptive acquisition system that DepSecDef has championed? How do you use military acquisition? How do you seed with the RDER fund that she has established? Or how do you use the Office of Strategic Capital to go faster within the authorities that we have? I think the real – the real promise is in the digital space. And so I've done a lot of thinking on this. And the great – there's this kind of iron triangle, but in digital, right? And it includes an open architecture. It includes digital engineering and digital manufacturing. And it includes that agile software development.

Again, the best and most modern systems are going to be the ones that allow us to do that. And the real advantage of that is you get to go a lot faster. You can parallel up many of the processes. And then you get these things like app-based approaches that are software-defined. That's the – that's the realm of the future, particularly to weapon systems that Byron asked about.

Dr. Jones: Great. Thanks. Let me do another question. And this certainly reflects a view that some Americans have had and continue to have. Why shouldn't Western Europe bear most of the cost for the Ukraine-Russia war, instead of the U.S.?

Adm. Grady: Yeah. Well, again, you know, it's not U.S. versus Western Europe. It's an alliance. We all come together in the ways that we can. And so we can look at it from a percentage perspective, if you will. But there's other ways to come

to the fight and to contribute in the fight in Ukraine. I think everyone's working hard, doing what they can. They're doing their own risk calculus. Their work happens at the various UDCGs, the meeting where we come together where we push and cajole each other to do more. And in the end, I think we get the right result.

So it can be the right result in spending more. It can be the right result in what Poland is doing right now in terms of everything that they have done to host, and be a logistics hub, and the rest. It can be training, as we have seen here most recently the various teams that have stepped up to help with training. So there's various ways to contribute. Money is just one of them. And they will all meet together with the secretary and the chairman, and they'll figure out what is the appropriate contribution for each – for each nation.

Dr. Jones: Question from a different perspective on Ukraine. This comes from a former U.S. Green Beret, who was – participated as a member of the Foreign Legion in Ukraine. And he says, given that – according to U.K. intelligence, and they put this out publicly – 97 percent of the Russian military is committed to the Ukrainian battlefield, why hasn't U.S. security assistance significantly increased in equal measure? It would seem, he says, that there's an opportunity here for Ukraine to decisively defeat the Russian military, so the U.S. can pivot to the Indo-Pacific. You know, people have raised the question about attack on fixed-wing aircraft, F-15s, F-16s. What's your response there?

Adm. Grady: Yeah, well, first, I don't think the premise is right. Ninety-seven percent of the ground force is committed, not 97 percent of the entire Russian military. There's huge chunks that are not. But not wrong in that number. I think that the work that the alliance is doing, the United States is doing, to provide the capabilities and add capacity that the Ukrainians need has been pretty spectacular, frankly. You know, you talked about Stingers and Javelins. If we were here, you know, nine, ten months ago, that's what we would have been talking about. And here we are now talking about HIMARS, and 155, and air defense –

Dr. Jones: Patriots.

Adm. Grady: And Patriots, as an example, as the war fight has progressed. So I think the alliance and the United States has stepped to the plate and is kind of ahead of the curve in many respects.

Yeah, so the question, I think, is, you know, why not give F-16s to the fight right now, as an example? That's a really wicked expensive and long-term solution set to the current problem. Maybe we talk about that later. I don't know. But, you know, if you're going to spend 40 billion (dollars) to provide

F-16s, that could also buy a hell of a lot of 155 GMLRS, right? So the question is: What's the return on investment for the current fight? And we will think about the future force later. So I think we're – I think we're doing it in the – in the appropriate way.

Dr. Jones: Good.

Here is another question from an analyst at RAND: In Ukraine, you have a Western-equipped army based on a skeleton of Soviet doctrine and tactics. Moving from a fires army to a maneuver army wouldn't be a trivial task, even in peacetime. Will you be able to see the needed return on investment in a compressed timeline of an active war? How essential is moving from fire to maneuver doctrine going to be for Ukraine, given U.S. and European defense infrastructure limitations for supplying munitions?

Adm. Grady: Yeah. All the right questions. One pushback would be they are largely Soviet-equipped and that's how they started, and now we're changing that dynamic, so – over time.

Yeah, maneuver's going to be the answer. What's going to get them to the – to the table, right, to the negotiating table? That's our job. This thing will end because the politicians will get together and figure out, you know, what's the end state, and it's going to be maneuver that does it. And so the capability will be provided, I think at the appropriate capacity will be provided, but none of that matters – back to the center of the universe, right – none of that matters unless Ukrainian soldiers can do it. I think that's the – I think that's the tenor of his question.

So let's go back to 2014, when the – post-Crimea, and then the United States and the rest of the allies started training the Ukrainians in Western style. Look at the success that they have had, right? And that's a direct result of the training. But I think, more, it's a direct result that the Ukrainians are pretty damn good and they're super committed, obviously, to protecting and regaining the sovereignty of their country.

So to the – to our – to our colleague who asked that question, that training is ongoing right now. Fair to say that it has been very successful. We'll see it play out, maybe, in this offensive, if and when that happens. But the Ukrainians are very, very fast learners. They are all business, all serious, lethal to the core. I would never underestimate their ability to learn and then lethally apply the concepts of maneuver warfare.

Dr. Jones: I think this will be the last question, just based on the timing, from someone in the audience: What is the perspective from the Joint Chiefs on theater missile defense in light of Russia's warfighting capabilities in Ukraine? And what would be the role of the next glide-phase interceptor for the Navy?

Adm. Grady: Yeah. So I think theater missile defense is something that Ukraine has shown us is important, another one of those elements that is perhaps reemphasized as opposed to learned or relearned. And so moving together with our allies and partners on the appropriate architecture and capability/capacity to execute theater missile defense will be absolutely critical. Europe is a great example of that, with the European Phased Adaptive Approach; with Aegis Ashore in Romania, also in Poland; with the DDGs that are there that provide that capability, the four that are – soon to be six that are stationed in Rota. So I think Europe is a – is a really good example of that. And then the contributions of that – because, again, it all starts with domain awareness and sensing, and the contributions of the entire alliance to that – to that architecture.

The glide-phase interceptor, that's a wicked hard problem. But what we have at sea right now can be adapted to do that mission, and so we will – up to the – up to the team on whether those investments are where we want to go. But the capability and capacity is there to take – to take the Aegis weapon system and put it to use in that – in that realm.

I think you'll see us do that, go forward. Is it a hard technical challenge? Absolutely. Can we do it? Absolutely.

Dr. Jones: Just briefly, in 30 seconds or so, you're – anything else you want to say as we – as we bring the Finns in right now into NATO and hopefully the Swedes soon on what role they play in strengthening the alliance? And then we'll return to Notre Dame before we –

Adm. Grady: (Laughs.) Yeah. Well, first of all, again, congratulations to the Finns and to the entire alliance. Now we're 31 for 31, and, boy, what a success story that is.

Talk about a miscalculation by Putin, right? You know: I'll break the alliance. No, you didn't. This is what you get.

And so the additional – the addition of our Finnish colleagues to the fight is significant. They are a highly-capable, highly-trained, highly-motivated military force that brings a lot to the fight, not the least of which is a long border that now has to be factored into the – into the Russian calculation. So welcome aboard to the Finns; glad to have you. We're only stronger together now that you're there.

And soon to the Swedes, same thing. I've worked a lot with the Swedes; again, great capability.

Back to your Baltic piece, is there anybody that knows that background better than the – I mean, maybe the Poles, the Germans and the Finns might say that, but the Swedes certainly do. And to have them in the fold to teach us, to help us get better and stronger in what will soon be a pretty spicy or could be – not soon, but could be a pretty spicy operating environment; better to have them with us. So look forward to welcoming them too.

Dr. Jones: Well, thank you. Any predictions on next year's football –

Adm. Grady: Yeah. We make the playoff.

Dr. Jones: OK. Make the playoff?

Adm. Grady: Yeah, we make the playoff.

Dr. Jones: All right, good. Bowl game? No bowl game? Playoff.

Adm. Grady: Oh, absolutely bowl game. I mean, you've got to try really hard not to make a bowl game. (Laughter.) Yeah, we'll make it.

Dr. Jones: All right, good. Well, just a heads up. Before I thank Admiral Grady, as a reminder, we'll break now for lunch, which is out there. We will return at 12:30 for our panel on challenges in Europe – challenges and opportunities in European defense.

And so if you could join me before we break in thanking Admiral Grady for joining us; really appreciate you taking the time. And we'll let you get back to the rest of your working day.

Adm. Grady: Yeah. (Laughs.) Thanks.

Dr. Jones: All right, thank you. (Applause.)

(END)