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THE FUTURE OF STRATEGIC DETERRENCE AND NUCLEAR MODERNIZATION: A CONVERSATION WITH ADMIRAL CHARLES RICHARD

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P R O C E E D I N G S

MR. O'HANLON: Good morning, everyone. I'm Mike O'Hanlon with the Foreign Policy program at Brookings. And on behalf of all of my colleagues and everyone at Brookings we really want to welcome to this Brookings event Admiral Charles "Chas" Richard of U.S. Strategic Command. He is the combatant commander there, which means he is the nation's senior officer in charge of strategic nuclear deterrence. He has been in that role since November of 2019; had previously been the deputy to General John Hyten, who is now the vice chairman of the Joint Chiefs of Staff.

He hails from the great state of Alabama with degrees from a number of universities, including Catholic University. He is a submariner by background and by profession; has commanded a number of nuclear attack submarines over his career and been involved in a number of studies for the CNO and other parts of the Navy and Department of Defense on the future of the Navy, including everything from the submarines to unmanned systems to many other capabilities.

Today he is going to speak about how he thinks of nuclear deterrence in this era of the 2020s. And then I'll have a brief conversation with him before weaving in a few of your questions, many of which we already have. With apologies, the whole session has to be shortened a little bit because the admiral has a hard stop in 40 minutes, so I will try to be fair-minded and share the floor here with those of you who have already sent in questions and those of you who may still send to events@brookings.edu. Again, questions can be received at events@brookings.edu.

But without further ado, Admiral, thank you for being with us today, sir, and the floor is yours. I don't think we're hearing you yet, you're still muted.

ADMIRAL RICHARD: All right, Michael. Hopefully, everybody can hear me now. And thank you for that very kind and perhaps overly generous introduction.

For those on the net that don't know me, I'm Admiral Chas Richard, U.S. Strategic Command. And more importantly, I am privileged to lead 150,000 sailors, soldiers, airmen, Marines, guardian civilians, conducting the strategic deterrence mission on behalf of the nation and our allies.

I do want to start off today by noting the U.S. strategic forces are fully mission-capable. We work very hard to make sure we can say that every day.

And Michael and the group, I'd like to offer just five quick points. I know we're anxious to

get to Q&A, but I think this would be a good foundation to start with in looking and thinking about strategic deterrence.

Many of you all have heard me say, other senior leaders say that strategic deterrence is the most important mission in the Department of Defense. It's our number one priority. And to be honest with you, that rings a little academic in my mind, that I am an operational commander. I tend to think about things operationally, i.e., more practically.

And let me give you another way of thinking about that for your consideration and it's this: Every operational plan in the Department of defense and every other capability we have in DOD rests on an assumption that strategic deterrence and in particular nuclear deterrence, those terms are not synonymous, they rest on the assumption that that is holding. Right? And if that assumption is not met, particularly with nuclear deterrence, nothing else in the Department of Defense is going to work the way it was designed.

I see in some circles this thought that somehow we can take nuclear in particular, put it off in its own little box to the side, has its command, had its own threat and we can decide how credible that threat is, and somehow there's this independent rheostat over here on how much risk we're willing to take and somehow that's completely separate from everything else DOD does. And to think about deterrence, one of the things I submit is you can't think about it in pieces. Nuclear is not separate from conventional, it's not separate from space, it's not separate from cyber. They are all linked.

And I in particular applaud Secretary Austin's leadership in having us work much better, think much harder about cross-domain deterrence. If you go back to the basic theories of deterrence it doesn't talk about how you're going to deny the benefit or how you're going to impose the cost. We need to be thinking much more broadly than narrowly at any one capability, in particular nuclear.

Second, and I testified to a great extent about this, but the threat is expanding rapidly and in particular it's China. China has hit some sort of what I would describe as an inflection point or an acceleration with their strategic nuclear capabilities that I described as the strategic complement to the conventional gross as being by INDOPACOM and other commands.

And so what that means big picture is China cannot be considered a lesser included case to the pace in strategic nuclear threat, which is Russia. Throughout our history we have been able to

make that assumption that anything less than the pacing threat could be handled by the margins and the hedges that we placed for uncertainty in the primary. That's about to no longer be true and it has some pretty significant implications.

A big one is -- and this is where I could use some help in the theory -- we have never before as a nation had to deter two peer nuclear-capable competitors at the same time. The most classic theory really implies a two-party problem. There's Schilling and others that talk about third parties, but not as principals in most cases, and that is a very different stack of dynamics, particularly the fact they have to be deterred differently. We're working very hard on that here. But I think this is a much broader question that invites serious effort to go think through.

We do now measure the risk of a strategic deterrence failure every day here at STRATCOM. And the point being is in the previous 30 years you could pretty reasonably assume that risk was always low. It was not zero; you couldn't ignore it completely. But conditions are changing and we need to rethink how we're going to do deterrence, particularly under crisis conditions.

Two other points, Michael, and we can get into Q&A. The nation has had a longstanding, remarkably consistent, flexible, and tailored strategy in the way it wants to do strategic deterrence. In fact, I can trace its lineage back to the Kennedy administration. And it's, by the way, an interesting historical observation to go back to the one time we didn't have that, which was under Eisenhower and the "New Look" strategy, to do a comparison and contrast of how effective we thought those were.

Underneath that we have a very well thought out family of capabilities, policies, and postures that are all designed to go together to execute that strategy. And we've been successful at it for 70 years. And so I would invite, as I anticipate we're going to get into some individual questions about this policy or that capability, and I applaud where the Department and I think the nation is going is to pull that back into the strategic context such that we look at the overall effect of our strategy on any individual decision to understand the collective of what we're about to do. I, of course, will provide best military advice inside the Department, inside reviews like that.

And then finally, we are just starting a once every other generation, every 40-year recapitalization of our strategic forces. And I'm happy to go into more detail, but I just have no more operational margin. We put margin in these forces for a variety of risks: programmatic -- I'm sorry,

operational, technical, geopolitical. We have been trading that margin for programmatic convenience, but we're at the point that I just have nothing more to offer operationally.

Michael, I'll stop there. It may have been a little bit longer than you wanted, but I'm happy to get into some Q&A.

MR. O'HANLON: I thought that was great and very succinct. Let me, if I could, begin with a little bit of a framing question. Because most of our audience is rather knowledgeable about the issues of nuclear and general deterrence, but I want to make sure, especially because there has been, of course, a recent change with Space Command being created and in some sense split off from Strategic Command, and then Cyber Command being created. I know that you have to work closely with some of the other unified and regional commands.

And is it fair to say that the commands that you probably have to work with most closely would include the two I just mentioned, Cyber and Space, as well as Northern Command for defending the United States, and then Indo-Pacific Command and European Command because they have purview over Russia, North Korea, and China? And, therefore, those would be the commands that on any given day and any given mission you might have to really work very closely with. Is that a fair way to summarize where you sit in the broader scheme of the 11 overall unified commands?

ADMIRAL RICHARD: Well, Michael, I would agree with that, right. We have very close relationships with all the combatant commands that you just described. You've heard me quip sometimes that we still consider ourselves the proud parents of U.S. Space Command given that the mission came out of here, and backing up similarly with Cyber Command. But I keep going on your list. Right?

Special Operations Command is one that we work pretty closely with. I just had warfighter talks in terms of, again, how do you think strategically? How do you bring all instruments of the military and all instruments of national power to bear to conduct the mission?

And our challenges are global. And, yes, you are quite correct that INDOPACOM and European Command are leads, but we actually work with Southern Command, Central Command. We work with all of them as we look for the best ways to understand what the threat is that is being presented to us and then what means can we take to deter that threat?

So, you hit the order correctly. I just keep going a little bit.

MR. O'HANLON: Great. Now, I wanted to ask sort of general philosophical question about deterrence. And I guess the bottom line question is going to be if there were going to be an arms control goal for further reductions in U.S. and Russian and perhaps Chinese nuclear arsenals, what should that goal be in your mind? I mean, in the last few years we haven't really been able to pursue further reductions, largely because of Russia's behavior and the sense that we needed to push back against that; couldn't really work with Russia on arms control. And so I realize there are a lot of near-term impediments to any further progress in reducing the strategic nuclear arsenal.

But I wanted to get your sense about if you wanted to give a vision or a longer-term goal of roughly how big you think the strategic arsenal needs to be, I realize you already touched on this by saying that the combination of China and Russia as potential adversaries complicates the calculus and we still need to perhaps come up with a batter paradigm, but do you still have a gut instinct about, you know, how low we should be trying to go if and when we can get U.S.-Russia, U.S.-China relations on a trajectory where arms control becomes meaningful and possible again?

ADMIRAL RICHARD: Michael, I would start by saying that we work hard and contribute to the overall goal of a world without nuclear weapons. So, if you want an ultimate place to go -- and to be honest with you, again, not trying to sound not serious, but I'd love for the day that I could report we don't need a U.S. Strategic Command. We have achieved political agreements to that point you don't even have to have us.

So, backing up from that, how do you get on a path to go do that, it all comes down for operational purposes what's the threat? Anything that we can do to lower the threat makes my job easier and puts us on a path to that ultimate goal that I just described. So, I'm hesitant to give you specific numbers or anything because it's all relative. It is relative to the threats we face. And so concurrent reductions in any number of areas in terms of bringing in agreements that limit the threat, you know, a good starting point, the non-treaty-accountable weapons that Russia has would be a nice thing to get into a conversation about.

And even before we get after specific numbers, just the conversations are important. Right? The transparency, the confidence-building, would really like to have those types of conversations with China.

One thing you can say about the U.S. and Russia, even all the way through the Cold War, as tense as that was at certain points, we talked all the way through and there was great value in that. So, starting the communications, bringing the threat down to mutual benefit towards an ultimate goal of elimination of this class of weapons I think is a good path to go down.

MR. O'HANLON: So, staying at the conceptual level for a little bit, because I do want to get to some of the questions that people are fascinated to hear you speak about, where you attracted a lot of attention and interest a couple of weeks ago in congressional testimony and the future of specific modernization programs, but I want to stay a little broader and conceptual for a moment and ask you to speak about a dyad versus a triad. And, of course, you touched on that in your testimony, but, of course, today we have three primary long-range nuclear delivery capabilities -- that's been true now for half a century or more -- and they include: the ICBM force, the intercontinental ballistic missile force; the governing base missile force; and then, of course, the bombers.

And I think you had some pretty clear views about the desirability of keeping three separate legs. Some people have said two is probably enough. But I just wanted to ask you to explain, you know, why you still favor three.

And I'm especially intrigued given your background in submarine operations because, of course, many people have said the submarine leg of a deterrent is so robust with submarines so difficult to find underwater when deployed that we don't need to worry as much about having at least the same sized ICBM force and maybe for some people no ICBM force at all. But you've disagreed with that view and I'd like to hear a little more about your logic if you wouldn't mind sharing that, please.

ADMIRAL RICHARD: So, Michael, I'll start with all my comments are based on executing the strategy that we have today. That's an important piece to it. In fact, something that may be worth mentioning is one thing that distinguishes Strategic Command from the rest of the combatant commands is I don't have the ability to set my own objectives to execute that strategy. They are directed by the president as interpreted by the secretary of defense and the chairman. So, I am handed a stack of things that I am required to do with a certain level of standard that's associated with that, i.e., a level of risk that the nation has been willing to accept in the past. And all these could be considered as a part of the review.

But an example would be, one, a triad has a number of attributes, both individually and collectively, but it also collectively gives you a certain amount of capacity in terms of being able to do presidential objectives. And acknowledging this is kind of a theoretical discussion, but right now loss of capacity out of any one leg of the triad cannot be made up in the near term by any other leg of the triad. Now, we pass the opportunity to make those sort of decisions probably a decade ago. So, right now part of why I would argue for a triad is just for the total capacity that it brings.

Then you get into, you know, how has the nation historically approached this? One very basic criteria that we always apply to our strategic forces was the idea that we could lose an entire leg of the triad for any reason. We tend to want to postulate sort of adversary actions, but there are also technical and operational things that you consider such that I right now have to be able to achieve all presidential objectives, albeit with loss of flexibility, with a complete loss of a leg. That's a choice that we made. To honor that standard I have to have a triad. So, that would argue for that.

Then it's the idea, I'm not sure how well it's understood and I might be getting a little operational, we don't have a triad day to day. What we have is a dyad. That was a decision that we made. This is one of those posture decisions as the threat changed at the end of the Cold War. So, the bomber leg is not available to us. It takes some amount of time and a presidential order to bring that back.

So, now what do you need day to day to deter? And, Michael, let me keep going for a second. I think this is an important point. I see a lot of discussion, a bolt out of the blue. Right? And I want to make it clear that we would be the first people to tell you that a bolt out of the blue is unlikely. Right? And we don't posture what we do for this specific thing or that specific thing. Remember, what I'm tasked to do is deter nuclear use and deter a strategic attack. So, I consider all possibilities in terms of how that might happen. I consider limited nuclear use out of conventional conflict to be a far more stressing challenge right now.

But it's important, I think, I worry in some cases that we collectively forget how we got here in some cases. Right? Bolt out of the blue is very unlikely because we made it unlikely. We took actions. We literally invented the ballistic missile submarine to provide a survivable second strike. Right? Invented launch under *[sic]* warning and launch under attack capabilities. Part of why bolt out of the blue

is so unlikely is because it's probably not going to work. Right? And competitors are deterred from doing that.

And so I just invite caution as we think our way through this, that if we're not careful we could actually go make it likely again or considerable. I shouldn't say likely, but we could make it at least something to consider if we forget why it's unlikely today.

MR. O'HANLON: And you mentioned the two legs of the triad that are routinely on alert and within your purview, so to speak. And some people have already asked questions in our chat, but also more generally in the policy debate about whether the alert level is too high, whether it would be too easy. And, of course, some people use the term "hair-trigger alert." I don't think you use that term, but I want to invite you speak as to the kinds of checks and balances we have to avoid accidental or inadvertent nuclear war.

And if I could combine that with sort of the political side of the same question. And some of it was magnified by the Trump presidency, but it's not a question that's unique to President Trump. It's the broad question of whether we have enough checks and balances on a president deciding to essentially issue an order through the secretary of defense straight to you that Congress has no role in checking or potentially responding to that could allow for a nuclear weapons usage with very little oversight. And I wondered if you had concerns on either front, either in terms of the technical high readiness of the force or in terms of political channels by which a nuclear strike could in theory be authorized.

ADMIRAL RICHARD: Michael, that's a very rich question and we could go into any number of aspects related to that.

One, I do want to acknowledge that part of what we are accomplishing with our strategic force that is, again, unique to the United States is our extended deterrence and assurance commitments that we give to any number of our allies, right, NATO, Japan, Australia, South Korea. Right? We are unique I doing that. I would offer my opinion that has done more for nonproliferation in the world than any other combination of actions. I wish I could find the person that thought of that, right, because that was an absolutely brilliant good thing for us to do and we take those commitments very, very seriously.

I do want to -- so, I'll go into pieces on that. One, I have fabulous confidence in our

command and control capabilities and that is writ large, particularly there on the question that you asked. Not only do I not use the term “hair-trigger alert,” I would tell you that’s not a thing. That doesn’t exist. I don’t know what that means.

May PAO is trying to wave me off here, but sort of by that logic your car’s on hair-trigger alert. Right? I mean, it is responsive, it’ll start within a second, maybe two on a cold day. So, is it on hair-trigger alert? I mean, it has exactly two interlocks: a fob and a button. Right? And I haven’t seen a big problem with cars starting themselves up and driving around.

Now, compare that to scores of technical, procedural, and personnel interlocks that are placed in. All U.S. weapons are under positive control and will do exactly what the president says to do or not do. I have great confidence in that.

As to the broader questions about decision authority, one, I’d invite us to look at General Kehler’s testimony last week where I think he very crisply summarized the considerations that need to go inside that. Look, fundamentally, that is a question in my mind of how we intend to conduct civilian control of the military. Right? I can design you a command and control system that will do anything that the nation wants to do in the way its civilians oversee its military.

But I do think there are some key points that General Kehler brought up that are worth remembering. One is the idea that whatever system we come up with, it has to be very clear to the military who has the authority and who has the responsibility to give that order. Right? There should be no confusion or no doubt. That’s an important consideration.

The idea to at least allow a mechanism for us to make a rapid decision, right, and I want to be very clear we never, no president ever has to make a time-urgent decision. I’m not allowed to write a plan that requires a time-urgent decision. There will always be options available to the president, always provide that.

But there is deterrence value in being able to make a rapid decision. Right? That will change someone else’s calculus in considering that. And the system we have right now has served us well for 70 years. Not to say it couldn’t be improved upon, not the things that we shouldn’t, but there are significant potential second and third order implications of that that I think we would want to think our way through very carefully as we answer these broader questions about what is the best way to exercise

civilian oversight policy questions over the military.

MR. O'HANLON: Thank you. And I'm now weaving questions from the audience as I have been with my own. Before I get to the famous question of the ground-based strategic deterrent or the ICBM Minuteman successor, which is on a lot of people's minds, I wanted to stay on command and control and ask about cyber specifically and the cyber systems that undergird and control your forces, Admiral.

Because I remember a Defense Science Board study of just a couple years ago, actually I think it was 2017, that basically said because of the kind of software that's in many of our military systems, including our nuclear systems, we can't really be confident that they would work correctly in a crisis because an adversary might be able to access them and find gaps, vulnerabilities, and carry out various kinds of hacking attacks or various kinds of advanced persistent threats could be planted, etc.

But I wanted to hear from you just how worried are you about cyberattacks against our nuclear forces? Recognizing that we have a Cyber Command to potential carry out attacks against others' cyber capabilities. But I wanted to hear your assessment of our own cyber vulnerability and how that's evolving in real time right now, please.

ADMIRAL RICHARD: So, Michael, one, if I could pick up on the tail end of your question, yes, we have a very capable Cyber Command. We have a very capable NSA. They also help me with nuclear command and control. Right? General Nakasone is -- I applaud his leadership inside that area.

And some people watching this may not know that I have a separate stack of responsibilities to get after the overall question of nuclear command and control. In 2018, the then secretary of defense directed the establishment of an NC3 Enterprise Center that oversees all of the Department of Defense's nuclear command and control for operations requirements and system engineering; designated undersecretary of defense for acquisition and sustainment the responsibilities for acquisition and programming. So, we now look at all of NC3 altogether, all at once. Just went last week for the most recent update to the deputy secretary and the vice chairman.

So, to your point, I have great confidence overall in the cybersecurity of the nuclear command and control system. Right? We are not naïve. You want to know what my approach is? I would describe it as constructive paranoia. Right? That we know that command and control is always a

very lucrative target in any military competition with nuclear command and control at the highest level.

We are not trying to or I'm not trying to purport that I have built some sort of impenetrable hardened system, but NC3 carries some advantages over the rest of the networks in the Department. One, it operates in relative isolation. Two, it is tremendously diverse. Right? And so confident that while perhaps it's possible to effect a piece of it, you are not going to effect it overall.

That statement, I offer, is true today. I do need to modernize the system. Remember, pieces of this, while it's been modernized some, some of this command and control was originally designed before there was an Internet, before the word "cyber" even has its modern definition. And there's only so much retrofitting you can do in that environment. It's like trying to put to an automotive engine control computer on a '73 Chevelle in some cases. There's just nothing to hook it to. So, we need to continue to modernize.

I will go back to General Nakasone ensures that NC3 gets the best available intelligence. I get the best available defensive teams. We are constantly probing our own networks looking for vulnerabilities. So, I have confidence, but it is going to have to be modernized for me to say that in the future.

MR. O'HANLON: So, speaking of modernization, now let me get to the broader question of the budget picture and put the question of ICBM modernization in that context, if I could.

So, to, again, situate the debate fairly we now have two, if not three, straight administrations that have made nuclear modernization their top priority. This is not a Trump administration legacy, per se. I remember interviewing Admiral Greenert back at Brookings half a dozen or so years ago and asking him for his priorities, and nuclear modernization was at the top back then. And so in fairness, to defend your point of view on the need for modernization, it's crucial to the country's security and it's a bipartisan agenda.

On the other hand, we also know that since the publication of the National Defense Strategy of 2018, as well as the nuclear posture review at that time, the United States defense budget prognostications have become a little less promising. And it looks as if in the last Trump budget and now the first Biden budget we're seeing the expectation of a flatline in overall national defense resources when the authors of those National Defense Strategies thought we needed 3% to 5% annual real growth to buy

all the things they considered essential.

In that context, if you had to accept 5 to 10% less resources for nuclear modernization than you had previously envisioned, is there a way to delay the ICBM replacement? Maybe by shrinking the force and using some of the retired missiles as test missiles, for example. Is there a way, at least in the short term, even though you might consider it a false economy because it might not save us any more in the long run, is there a way to potentially mitigate budget pressures there or do you think that's just an unacceptable option or there are other ways we ought to be looking to economize if we really have to do so?

Over to you on a loaded question, but I know you've thought a lot about it.

ADMIRAL RICHARD: Well, it is, Michael. And, again, let's -- first, biggest picture, right, I'm a military commander. I have requirements to do what I've been told to do. I ask for certain capabilities. And I will faithfully inform based on decisions that are made. I mean, fundamentally, those are service, those are Department, those are national decisions. And I'll just faithfully inform what I can't do or what risks we're going to have to take.

But more broadly, I try to put it back in a larger perspective. We only do this every 40 years. Right? This is not what you normally see the Department of Defense debating, right? And there are very large dollar amounts associated here and I would be the first to challenge the services to do this in the most cost-efficient manner. I certainly have experience with Navy. I know the Air Force is working very hard to make sure that we are actually getting the value for our dollar.

But I ask us to put this back in a broader context of all the things the nation chooses to spend its money on. Put it in the Department of Defense's budget, discretionary budget, nondiscretionary. Put whatever label you want on it. And now start to look at all the things the nation chooses to spend its money on and then ask yourself about the risk that we're willing to carry should we not be able to accomplish this mission to historic standards. That's kind of point one.

Point two I would offer is, and I sometimes tongue-in-cheek refer, I'm a member of DOD. We're perhaps the largest bureaucracy on the planet. Right? And bureaucracies in general, we're not bad at making individual decisions. We're messy, we take a long time, but we generally get you a good decision.

Here are situations, though, that we don't normally face in that if you're wrong in a decision that you can't come back two or three years later and change your mind and buy something back, you don't like to do that, it tends to cost more money, it's not an efficient use of your resources, but you can do it. Right? We have delayed the recapitalization of the tried to the point that in certain infrastructure areas and in certain talent areas, human capital, that if we're wrong and choose not to do something and we lose those, we're not getting them back for five or 10 years. Right?

We have exhausted -- well, there's several areas I could give you where we don't know how to do it anymore. We haven't had to do it in 30 years. There was no reason to keep the people on it and we've lost that.

So, we don't normally face those decisions. I am very confident that our -- we're trying hard to identify them. I'm confident our leaders both inside the Department and inside the nation will make wise decisions, but we don't normally have that consequence to our decisions.

MR. O'HANLON: Thank you. In the roughly five or six minutes we have left I wanted to ask you a little bit about specific issues of, going back to your point, deterrence as a broader concept than simply strategic nuclear deterrence. And so I wanted to ask you about tactical nuclear weapons first, as well as the nuclear posture review of Secretary Mattis back in 2018, where he wanted to have some lower-yield strategic weapons as well as lower-yield tactical weapons. How's that going? Do you feel, based on what you're seeing out in the field, that even though those are not always your direct responsibility, the way they contribute to general deterrence is moving ahead well based on capabilities that we have, based on what you see adversaries saying in response?

And then I want to come back to a question about using non-nuclear methods to achieve strategic nuclear deterrence. But if I could first ask about tactical warheads, the way you see them fitting into our broader capability, the way they help, you know, with your responsibilities, with the ICBM and SLBM forces.

ADMIRAL RICHARD: Michael, again, I applaud, you ask some very insightful questions.

So, one is we don't draw a distinction. I try to avoid using the term "tactical". Any use of the nuclear effect will have strategic effects.

And then separately, I would submit this distinction in the New START Treaty between

strategic and nonstrategic weapons I think is increasingly irrelevant. That technology has moved and there are any number of the non-treaty-accountable weapons that not only present a threat to our allies, but also are a direct threat to the North American homeland in ways that were not envisioned when that treaty was originally constructed.

What I go back to here is the whole goal is to not have nuclear use. Right? My mission said victory looks like nothing happened. Right? It is a very non-military concept. And so when we perceived that the other side was thinking that there might be a way to use tactical, or, you know, put your term on it, that that might present them an opportunity that we wanted to change that perception. Right? And we think we have been successful at that.

One thing that I want to point out is we like to talk about low-yield ballistic, the 76-2. The nation has always had low-yield capability. The air-launched cruise missile came and had it. You can go all the way back to our gravity weapons, right? And so we have always wanted to show opponents there's no window, there's no place that you can go to attempt to use a nuclear weapon and not perceive that it's not to your advantage to do that. Right? That the cost -- either the benefit's going to be denied or the cost is going to be too great. We have always done that.

This is just an example of the threat change. And I can't deter if I can't get to the target. Low-yield ballistic enabled us to make that credible claim. And I think, you know, we do formal analysis on this. We saw a deterrence value in the decision to do that.

MR. O'HANLON: Fantastic. I think this is going to be my last question. And again, I want to thank the audience because, again, I am weaving your ideas and questions into my own. But I wanted to then go back, Admiral, to the concept of general deterrence that you mentioned at the beginning and ask to what extent you see new technologies, especially precision strike conventional weapons of whatever range, as being relevant to your overall task of potentially attacking targets that nuclear weapons might have previously been required to attack.

And does the advent of better and increasingly capable, maybe even hypersonic, conventional weapons change the mix very much and how we think about strategic nuclear deterrence? Or do you still think that -- do you think that the latter mission is sort of still separate enough that notwithstanding your earlier point about deterrence being a big, broad concept, that we really shouldn't

mix up, you know, conventional weapons into PSYOP, strategic, you know, single integrated operational plan, nuclear target set planning very much? That these are really two separate worlds. Or are they really coming closer and closer together? If that's not too fuzzy of a question.

Over to you, sir.

ADMIRAL RICHARD: No, Michael, that's a great question. And, again, I'm Strategic Command, not Nuclear Command. Right? I am trying to achieve a strategic deterrent effect. And we already -- look, nothing in the basic equation is effect-specific. And so we are always looking for ways to use the nation's full range of capabilities.

I mean, you asked specifically about conventional prompt strike. STRATCOM's had a requirement for that since 2016. I will be ready to receive the first intercontinental capabilities from any services. I'm already putting together command and control targeting, etc. I've committed the secretary. I'll put it online day one that it's made available to us. Right? And any means available to achieve the effect that we're after, we only use nuclear for things that only nuclear can do and we have long done that.

But it is probably worth one other point, Michael, which is today, and as far into the future as we can see, there are things that only nuclear can do; that you can only deter with the nuclear effect. And so until that's able to be changed, remember that there are things out there that you can have unlimited conventional capability and not be able to deter. Right? We are working to make that number of things smaller.

The secretary of defense I think has spoken pretty strongly. I applaud his leadership. How do you get cross-domain? How do you take the capabilities we already have, integrate them in novel ways to achieve a better effect?

We will certainly be ready to put online any new capabilities we have, searching how to use what we have better. But today and into the future, there are some things that only nuclear can do and only nuclear can deter.

MR. O'HANLON: Well, Admiral Chas Richard of Strategic Command, thank you very much for spending time with us today. Thank you for all the men and women and their service to the nation that you command. And we want to just express gratitude from Brookings and Washington and

the country in general.

So, I will let you get on with the rest of your day and sign off from Brookings with best wishes to everyone for the weekend and beyond. Thank you.

ADMIRAL RICHARD: Michael, I thank you and I want to leave you with this thought, particularly from the leadership you, Brookings, and other institutions have had, which is do we have enough strategic deterrence intellectual expertise in this nation and more broadly, right? I'm kind of reminded we invented the entire RAND Corporation to help think through the Cold War challenges that we faced.

So, I do intend to introduce that question as a part of a strategic or nuclear posture review. But I think it is broader than the Department of Defense. So, if you're on this, I applaud your interest, but I sometimes worry that there may need to be a lot more of us that are thinking hard about this to guarantee our security given the threats we face.

Thank you for the invitation. I hope everybody else has a great weekend and enjoyed being here.

MR. O'HANLON: Thank you and well said.

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I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

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