

Stenographic Transcript
Before the

COMMITTEE ON
ARMED SERVICES

UNITED STATES SENATE

HEARING TO RECEIVE TESTIMONY ON
REGIONAL NUCLEAR DETERRENCE

Tuesday, March 28, 2023

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1 HEARING TO RECEIVE TESTIMONY ON
2 REGIONAL NUCLEAR DETERRENCE

3
4 Tuesday, March 28, 2023

5
6 U.S. Senate
7 Subcommittee on Strategic
8 Forces
9 Committee on Armed Services
10 Washington, D.C.
11

12 The subcommittee met, pursuant to notice, at 4:52 p.m.
13 in Room SR-222, Russell Senate Office Building, Hon. Angus
14 King, chairman of the subcommittee, presiding.

15 Committee Members Present: King [presiding], Fischer,
16 Cotton, and Tuberville.
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1 OPENING STATEMENT OF HON. ANGUS KING, U.S. SENATOR
2 FROM MAINE

3 Senator King: This hearing of the Strategic Forces
4 Subcommittee of the United States Senate Committee on Armed
5 Services will come to order.

6 I first want to thank our witnesses for joining us at
7 today's hearing on regional nuclear deterrence. Today's
8 hearing may sound somewhat esoteric but it is deadly serious
9 to our national security. We have debated strategic
10 deterrence extensively in this committee and, in fact, the
11 2022 Nuclear Posture Review concentrated on our nuclear use
12 policy, modernizing our triad so that we might ensure that
13 we are never coerced by a near peer adversary such as Russia
14 or China.

15 The question we ask today is about regional nuclear
16 deterrence. In other words, how can we ensure a
17 conventional conflict with a near peer adversary or a
18 conflict between two nuclear-armed adversaries does not
19 resort to the use of nuclear weapons, which then escalates
20 into a broader nuclear exchange? This is the nuclear
21 escalation ladder that theorists have worried about for
22 decades.

23 Today Ukraine is an example of regional nuclear
24 deterrence. Russia's strategic triad is certainly something
25 that the United States must take account of in terms of its

1 involvement in the conflict. Meanwhile, our extended NATO
2 deterrent has prevented Russia from intervening directly
3 with NATO allies. However, that is not the end of this
4 dilemma.

5 Russia has a doctrine referred to as "Escalate to
6 Deescalate," which is when they feel that they are in danger
7 of being conventionally overmatched and their country's
8 existence is at stake. It will involve first using low-
9 yield weapons to stun any opponent. Will taking back Crimea
10 trigger this doctrine? Will taking back some of the
11 property, the land that Russia has allegedly annexed trigger
12 this doctrine? We know Russia is running low on
13 conventional munitions. If Russia enters into a conflict
14 with a NATO ally will they quickly resort to low-yield
15 weapons?

16 I hope today's hearing informs us as to whether our
17 deterrent is appropriately tailored for such a regional
18 conflict. Are we self-deterred with our high-yield arsenal
19 of ICBMs and SLBMs? There is a debate about bringing back a
20 low-yield, submarine-launched cruise missile, that which
21 will deter Russia in a regional conflict. Would it deter
22 Russia in a regional conflict? These same questions apply
23 to China and Taiwan, North Korea, South Korea, and Japan.

24 Today's witnesses have all thought about these
25 questions and many of them have served in government,

1 enacting policies on this issue. It is important that we
2 hear and learn from them today so that we are better
3 informed as we prepare for our discussions of the National
4 Defense Authorization Act later this spring.

5 After remarks from Senator Fischer we will have
6 statements from our witnesses and a round of questions from
7 our Senators.

8 Senator Fischer.

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1 STATEMENT OF HON. DEB FISCHER, U.S. SENATOR FROM
2 NEBRASKA

3 Senator Fischer: Thank you, Mr. Chairman, and thank
4 you to all our witnesses for being here today and for
5 sharing your perspective on nuclear strategy and deterrence
6 theory, particularly with respect to the role it plays in
7 regional nuclear stability.

8 According to the 2022 NPR, effective nuclear
9 deterrence, quote, "requires tailor strategies for potential
10 adversaries that reflect our best understanding of their
11 decision-making and perceptions," end quote. The NPR also
12 notes that the United States, quote, "will collaborate with
13 allies and partners to tailor extended deterrence and
14 assurance policies," end quote.

15 These strategies must be continuously evaluated to
16 ensure they reflect and take into consideration the evolving
17 threat environment. I look forward to hearing your thoughts
18 on effective strategy concepts and how they may impact
19 regional nuclear deterrence.

20 Thank you very much.

21 Senator King: If the witnesses will introduce
22 themselves. I do not know what order you want to proceed.
23 Brad, do you want to start?

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1 STATEMENT OF BRAD ROBERTS, Ph.D., DIRECTOR, CENTER FOR
2 GLOBAL SECURITY RESEARCH, LAWRENCE LIVERMORE NATIONAL
3 LABORATORY

4 Mr. Roberts: Sure. Thank you for the opportunity to
5 join you in this discussion today. I am Dr. Brad Roberts.
6 I am Director of the Center for Global Security Research at
7 Lawrence Livermore National Laboratory. The views I am
8 expressing are my personal views, not those of the lab, and
9 I had the pleasure and honor of serving as Deputy Assistant
10 Secretary of Defense for Nuclear and Missile Defense Policy
11 through the first Obama term.

12 In my time I would like to make five quick arguments.
13 The first is that we should appreciate that allies are
14 living in the nuclear crosshairs of our nuclear-armed
15 adversaries. Our nuclear-armed adversaries seek to remake
16 the regional orders in which they sit, and the prize in this
17 competition, and if there were a war, in war, the prize is
18 the allegiance of our allies. And they should not be simply
19 an afterthought in our defense strategy. The deterrence
20 protection we provide of them is central to the
21 confrontation in which we are involved today. And these
22 allies experience a good deal of anxiety about the life in
23 the nuclear crosshairs and about the credibility of U.S.
24 extended deterrence guarantees to them.

25 Second argument. In the U.S. discussion of extended

1 deterrence we tend to put our focus on the hardware -- dual-
2 capable aircraft, the B-61 bomb, SLCM/N -- all very
3 important, but we should not forget the software. The
4 software includes declaratory policy and other statements of
5 leadership intent. It includes consultations, processes,
6 and mechanisms within the alliance structures. It includes
7 concepts and principles for nuclear deterrence and
8 employment. It includes operational plans and planning
9 processes and exercise programs to exercise those plans.
10 And it includes the knowledge base that is essential to all
11 of that. And as we consider the weaknesses in the extended
12 deterrence posture we should consider the weaknesses in the
13 software side.

14 Third argument. The existing extended deterrence
15 posture was designed for an era long past. The existing
16 extended deterrence posture is a result of the Presidential
17 Nuclear Initiatives of the immediate post-Cold War period,
18 when the U.S. withdrew all of its nuclear weapons from Asia,
19 97 percent of its nuclear weapons from Europe, all of its
20 weapons from naval surface combatants, and all of its
21 nuclear-armed cruise missiles from attack submarines. Most
22 of those things were destroyed. The cruise missiles were
23 kept until 2010, when they aged out.

24 This was a bet we placed as a nation that extended
25 deterrence could be provided with a few remaining nuclear

1 weapons in Europe and our central strategic forces. We saw
2 this as appropriate in the benign environment of the time.
3 Russia, China, and North Korea perceived a different
4 security environment, of course, and have done well focused
5 on creating new nuclear advantages for themselves over a
6 long period of time, and theories of victory in conflict
7 with us that involve the coercion of our adversaries and the
8 disruption of our military options by nuclear means.

9 Our allies are very clear that they want forward-
10 deployed weapons as a part of the extended deterrence
11 commitment, or at least forward deployable in East Asia.
12 And thus, there is a rising discussion of what kind of
13 capabilities the alliances need in future years, whether
14 there is the right diversity in the posture in addition to
15 the right number.

16 Fourth argument. Looking ahead a decade or so, the
17 challenges facing extended nuclear deterrence seem destined
18 to grow. I think we all expect that when the Ukraine
19 conflict dials back into a frozen conflict the Russia we are
20 going to face for the next decade or so is going to be
21 difficult, threatening, and ever more reliant on nuclear
22 weapons. We clearly expect greater nuclear-backed coercion
23 out of China, as its nuclear arsenal grows and its theater
24 nuclear force grows, and we expect the same from North
25 Korea. There is a mismatch, in other words, between the

1 legacy posture of 1991 and the challenge that is emerging in
2 front of us.

3 Fifth and finally, strengthening of extended nuclear
4 deterrence has been a clear priority for three presidential
5 administrations in a row, and the fact of bipartisan
6 consensus on this aspect of our nuclear strategy is striking
7 and should be preserved. That bipartisanship has enabled a
8 good deal of progress in adapting extended deterrence to new
9 circumstances and strengthening it by various means, but
10 more progress is needed. This will not be possible without
11 leadership focus, which has ebbed and flowed, and with that
12 focus I think we will see the accomplishment of various
13 projects that are already underway, such as finalizing the
14 nuclear modernization and strengthening the consultative
15 processes in East Asia. But there are some important new
16 challenges still in front of us about future capabilities
17 and future concepts.

18 Thanks so much for the opportunity to contribute.

19 [The prepared statement of Mr. Roberts follows:]

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1 Senator King: Thank you very much, Mr. Roberts.
2 Mr. Weaver. Dr. Roberts, sorry. Mr. Weaver.

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1 STATEMENT OF GREGORY WEAVER, SENIOR ASSOCIATE [NON-
2 RESIDENT], PROJECT ON NUCLEAR ISSUES, CENTER FOR STRATEGIC
3 AND INTERNATIONAL STUDIES

4 Mr. Weaver: Thanks, Mr. Chairman, Senator Fischer,
5 Senator Cotton, Senator Tuberville. Thanks for the
6 opportunity to participate here. My name is Greg Weaver.
7 Today marks the 1-year anniversary of my retirement from
8 Federal service. My last three positions in government I
9 was the Chief Nuclear Policy and Strategy Advisor to the
10 Chairman of the Joint Chiefs on the Joint Staff in the J5.
11 I was the Principal Director for Nuclear Missile Defense
12 Policy under Deputy Assistant Secretary Bunn in OSD policy.
13 And before that I was the Deputy J5 in STRATCOM in Omaha.

14 My comments today also reflect just my personal views.

15 I want to commend the subcommittee for focusing on what
16 I think is a particularly important, urgent, and evolving
17 challenge that we need to get on top of. Frankly, I believe
18 improving our ability to deter and counter adversary limited
19 nuclear use in a regional conflict is the single most
20 important challenge we face in U.S. nuclear strategy today,
21 and let me explain why.

22 It is broadly agreed that the most likely path to
23 limiting nuclear deterrence failure is escalation in the
24 context of major conventional conflict between nuclear-armed
25 adversaries. It is also broadly agreed that the most likely

1 path to a large-scale homeland nuclear exchange between
2 major powers is escalation from limited nuclear use in the
3 context of such a conflict. Thus, regional nuclear
4 deterrence is the key to addressing the most likely path to
5 nuclear war at any level of violence.

6 Deterring Russian limited use is our most immediate and
7 challenging regional nuclear problem, although China is
8 rapidly rising in that area. So I am going to focus today
9 on the Russia problem to illustrate the nature of what we
10 are up against.

11 President Putin's criminal invasion of Ukraine
12 demonstrated both a high propensity to take risk and to
13 miscalculate in the process of doing so. Perhaps this
14 propensity to take risk and miscalculate will be alleviated
15 by Putin's eventual departure, but we cannot count on that
16 and we do not know when that will be. The Russian
17 leadership's historical propensity to underestimate NATO's
18 resolve and unity under threat long preceded Putin and will
19 likely survive him.

20 An effective regional nuclear strategy in Europe must
21 be based, as Senator Fischer pointed out, on an
22 understanding of Russia's nuclear strategy and doctrine.
23 Both are ultimately rooted in the assumption that limited
24 nuclear use in theater is unlikely to escalate to a large-
25 scale homeland exchange, though I do not believe the

1 Russians are certain that they can avoid uncontrolled
2 escalation.

3 It is important to understand that Russian conventional
4 and nuclear strategy and doctrine are fully integrated with
5 each other. Their nuclear forces role is to both deter
6 large-scale nuclear attacks on the Russian homeland and to
7 compensate for NATO conventional superiority in two ways.
8 First, through the limited use of nuclear weapons in theater
9 to coerce war termination on terms acceptable to Russia, if
10 possible, but second, to defeat NATO conventional forces
11 through large-scale theater nuclear strikes, if necessary.
12 The latter is what drives Russia's force requirement for
13 thousands of theater nuclear weapons embedded throughout
14 their conventional forces.

15 What then is required to deter Russian limited nuclear
16 escalation in theater in an ongoing conventional war with
17 NATO? Well, because Russian strategy is based on the belief
18 that mutual deterrence of large-scale homeland strikes is
19 very robust, we cannot rely solely on the suicidal threat of
20 a large-scale U.S. nuclear response to limited Russian
21 escalation or on the potential for uncontrolled escalation.
22 Deterrence of Russian limited nuclear use requires the
23 perceived ability of the United States and our NATO allies
24 to persevere in the face of limited nuclear escalation
25 without being politically coerced into accepting Russia's

1 terms and without being decisively militarily disadvantages.

2 Our longstanding flexible response strategy is, I
3 believe, fit for that purpose but only if it is enabled by
4 U.S. and allied nuclear and conventional forces that are
5 capable of three key things. First, being able to continue
6 to operate effectively to achieve U.S. and allied objectives
7 in a limited nuclear use environment. Second, being able to
8 counter the military impact of Russian theater nuclear use.
9 And third, providing the President a credible range of
10 response options to restore deterrence by convincing Russian
11 leadership they have miscalculated in a dire way, that
12 further use of nuclear weapons will not result in them
13 achieving their objectives, and that they will incur costs
14 in the process that far exceed any benefits they can achieve
15 should they choose to escalate further.

16 In sum, our capabilities must convince them that
17 nuclear escalation is always their worst option.

18 Now, for the nuclear capabilities bottom line. To meet
19 these requirements with high confidence we need a range of
20 forward-deployed, survivable theater nuclear capabilities
21 that can reliably penetrate adversary air and missile
22 defenses with a range of explosive yields on operationally
23 relevant timelines -- and that is an extensive list of
24 attributes. Based on these attributes, planned U.S. nuclear
25 capabilities, in my view, are not sufficient for the future

1 threat environment we face. Strategic nuclear forces alone
2 are insufficiently flexible and timely to convince a major
3 power adversary that we are fully prepared to counter
4 limited nuclear use with militarily effective nuclear
5 responses of our own.

6 Theater nuclear forces are needed for this role, but
7 our planned theater nuclear forces, in my opinion, are too
8 small, insufficiently survivable, and insufficiently
9 militarily relevant. Completing the modernization of our
10 dual-capable fighter aircraft capabilities is necessary, but
11 it is not sufficient.

12 Our theater nuclear forces can be made a much more
13 credible deterrent without having to match Russia and China
14 weapon-for-weapon by supplementing our dual-capable fighter
15 force with at least one more survivable, forward-deployed,
16 selectable yield delivery system that has a high probability
17 to penetrate adversary defenses. Several candidate systems
18 could meet this requirement, but I assess the SLCM/N,
19 deployed on attack submarines, is the best solution for
20 these reasons. First, it is highly survivable day to day
21 and thus not subject to a preemptive strike. Second, it
22 provides theater nuclear deterrent presence, whether it is
23 actually present or not, because the adversary will not know
24 where those submarines are located. Third, it provides an
25 effective ability to penetrate, in part due to, in some

1 cases, being capable of launching from inside the outer
2 edges of an adversary's integrated air defense system.

3 Fourth, it provides operationally significant
4 promptness when compared to bomber-delivered, air-launched
5 cruise missiles, it exploits the submarine fleet's large,
6 preexisting launch infrastructure, reducing cost, it has no
7 ballistic missile launch signature that could be
8 misinterpreted by an adversary, and finally, it could
9 leverage the LRSO, air-launched cruise missile modernization
10 program, reducing the impact on our nuclear weapons
11 infrastructure of building an additional theater nuclear
12 capability. No other system I am aware of checks all those
13 boxes.

14 So in conclusion, and I know I have gone a little long,
15 regional nuclear deterrence is not the place the United
16 States should choose to take risk, and not only because
17 theater deterrence failure is the most likely path to large-
18 scale nuclear war, though that is a pretty good reason in
19 and of itself. An inability to confidently deter or counter
20 adversary limited nuclear use will undermine the credibility
21 of U.S. capability and will to project power against
22 nuclear-armed adversaries in defense of U.S. and allied
23 vital interests, making major power conventional war more
24 likely in both Europe and Asia. Our allies have not
25 forgotten this and neither should we.

[The prepared statement of Mr. Weaver follows:]

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1 Senator King: Thank you very much. Compelling
2 testimony. I appreciate it,
3 Ms. Bunn.

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1 STATEMENT OF M. ELAINE BUNN, SENIOR ADVISOR [NON-
2 RESIDENT], PROJECT ON NUCLEAR ISSUES, CENTER FOR STRATEGIC
3 AND INTERNATIONAL STUDIES

4 Ms. Bunn: Thank you, Chairman King and Ranking Member
5 Fischer, and other subcommittee members for the invitation.
6 It really is a pleasure to testify before you again, but
7 this time as a private citizen representing only myself and
8 not as a USG official. I spent 40 years in government,
9 mainly at Department of Defense. My last job there was as
10 Deputy Assistant Secretary for Nuclear and Missile Defense
11 Policy, following Brad, in 2013 to 2017.

12 Senator King: Did you say 40 years?

13 Ms. Bunn: Forty years. Forty.

14 Senator King: You were hired as a child?

15 Ms. Bunn: I just had my 70th birthday. That is on the
16 record.

17 I also, in that NASD job, as did Brad, spend a lot of
18 time with allies, both as the U.S. Representative to the
19 High Level Group of NATO as well as co-chairing the
20 deterrence dialogues with Japan and South Korea.

21 The U.S. has made very explicit extended nuclear
22 deterrence commitments to more than 30 countries, NATO
23 countries as well as Japan, South Korea, and Australia. In
24 so doing, the United States has privately and publicly
25 affirmed that aggression against those countries could,

1 under some circumstances, merit a U.S. nuclear response.

2 I have come to believe that extended deterrence is
3 amazing from both sides. We have our non-nuclear allies,
4 who have foresworn their own nuclear weapons and rely on
5 another country, the U.S., in high-end situations, including
6 nuclear attacks on their own territory and people. And it
7 is amazing that the U.S. takes on the risk and
8 responsibility of putting its own forces, even its
9 population and territory, at risk on behalf of an ally. And
10 that is an amazing fact to the point that some, in the past,
11 have found it incredible. That is the reason we have an
12 independent French nuclear force.

13 It should be no surprise that our non-nuclear allies
14 need to constant reassurance that they are very interested
15 in how we think about deterrence, how we might respond. It
16 is not amazing that they need that constant interaction to
17 feel secure.

18 In January, South Korean President Yoon speculated
19 publicly that if North Korean provocations increased, South
20 Korea might consider building its own nuclear weapons or
21 maybe asking the United States to deploy tactical nuclear
22 weapons to the South, as it did before 1991. Although
23 President Yoon later stress that his comments did not
24 represent official policy, they were still significant,
25 marking the first time since the '70s that a South Korean

1 President has raised the prospect of acquiring nuclear
2 weapons.

3 Do President Yoon's comments indicate that some in
4 South Korea are concerned about the credibility of the U.S.
5 extended nuclear deterrence commitment? I think so. While
6 I am not worried about non-nuclear allies deciding to have
7 their own nuclear weapons in the very near term, I can see
8 it happening, 5, 10, 15 years from now, with South Korea
9 probably the first among them.

10 U.S. will has long been the underlying concern for
11 allies. They know we have weapons, but would we use them?
12 It is not "could we" but "would we." I think it
13 consultations at multiple levels, real ones, where we listen
14 as well as talk, where we have exercises, both tabletop and
15 field exercises, where we have forward deployments of
16 conventional and sometimes nuclear forces. All of those
17 things that we have a stake in and will take risk for
18 allies' security.

19 If South Korea, or another ally, does ask for
20 deployment of U.S. nuclear weapons on their territory, or
21 nuclear sharing arrangements, dual-capable aircraft and the
22 B-61 bombs, as in NATO, or offshore SLCM/N, which I have not
23 heard allies discussing much, but if allies raise any of
24 these hardware issues I think the U.S. should be willing to
25 have frank discussions about their view and be open to talks

1 on the plusses and minuses of what allies believe they need
2 and not simply give a kneejerk "no."

3 There are things we can do short of deploying nuclear
4 forces in allied countries. For example, the last three
5 Nuclear Posture Reviews have all said that the U.S.
6 maintains globally deployable, dual-capable aircraft,
7 primarily to assure Northeast Asian allies. But we have not
8 demonstrated that capability with exercises. That should be
9 an easy one to do.

10 In any event, with or without forward-deployed nuclear
11 weapons there is a need for ongoing consultations that are
12 deep and nuanced, more realistic exercises, and greater
13 allied integration in operational planning.

14 Thank you.

15 [The prepared statement of Ms. Bunn follows:]

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1 Senator King: Thank you very much.

2 Mr. Montgomery.

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1 STATEMENT OF EVAN B. MONTGOMERY, Ph.D., SENIOR FELLOW
2 AND DIRECTOR, RESEARCH STUDIES, CENTER FOR STRATEGIC AND
3 BUDGETARY ASSESSMENTS

4 Mr. Montgomery: Thank you, Chairman King, Ranking
5 Member Fischer. I appreciate the opportunity to be here
6 today and share my thoughts with you. I would like to focus
7 my remarks on the potential consequences of China's nuclear
8 modernization.

9 For more than a decade, China's conventional military
10 modernization has been upending the balance of power in the
11 Indo-Pacific region. Until recently, though, China's
12 nuclear arsenal has been a secondary concern. The situation
13 is starting to change now that China is engaged in a
14 significant quantitative and qualitative nuclear buildup.
15 This nuclear buildup could be destabilizing both regionally
16 and globally, and I would like to highlight three areas of
17 concern that have been raised to date.

18 The first is the possibility that China could pose a
19 future first-strike threat against U.S. strategic forces.
20 This previously implausible scenario could become a genuine
21 concern if Beijing fields accurate and difficult-to-detect
22 system that could threaten U.S. command and control targets,
23 as well as large numbers of ICBMs that could threaten U.S.
24 strategic delivery systems.

25 Thankfully, the likelihood of this scenarios is

1 extraordinarily low because the demands of a successful
2 first strike are so extraordinarily high. Nevertheless, if
3 China's nuclear buildup unfolds in the way that many now
4 anticipate, it cannot be discounted entirely, especially if
5 U.S. officials take into account the combined nuclear forces
6 of Russia and China in their calculations, as they should.

7 The second area of concern is the possibility that
8 China's nuclear buildup could embolden Beijing to start a
9 conventional conflict against the United States. From
10 China's perspective, a larger and more survivable strategic
11 deterrent could ensure that any fight between the United
12 States and China does not escalate and remains at the
13 conventional level, a prospect that might actually benefit
14 China given its conventional military modernization.

15 This situation is certainly a far more plausible risk
16 than the threat of a first strike. Nevertheless, China
17 would still need to be confident that it could suppress
18 Taiwan and succeed in a clash with the United States, two
19 very costly courses of action no matter how many
20 improvements the PLA makes.

21 The third area of concern associated with China's
22 nuclear buildup, and I think the one that is likely to be
23 the most serious over the long run, is the possibility that
24 China could build the tools to make limited nuclear threats.
25 For instance, China could soon be equipped with multiple,

1 highly accurate theater nuclear options, enabling it to hold
2 many regional targets at risk with low-yield nuclear
3 weapons. These capabilities are especially worrisome
4 because they could serve as the foundation for an
5 alternative coercive strategy against Taiwan, one that might
6 look easier, faster, and cheaper than, for example,
7 launching a direct invasion of the island and embarking on a
8 large-scale conventional war against the United States.

9 Specifically, if Beijing paired limited nuclear threats
10 with, for example, blockade operations against the island
11 and attacks against leadership targets, it would pose major
12 dilemmas for the United States as it determined whether and
13 how to intervene.

14 In sum, the nuclear buildup that China has embarked
15 upon could have significant consequences. Although it has
16 received less attention than the expansion of its strategic
17 forces, a potential buildout of China's theater nuclear
18 capabilities could have major implications for the United
19 States, and here I will briefly highlight three.

20 The first implication is for U.S. nuclear force
21 structure. For years, the United States has been concerned
22 about the imbalance in non-strategic nuclear weapons between
23 itself and Russia. Yet there might be a similar imbalance
24 on the horizon with respect to China. If Beijing fields a
25 variety of nuclear-armed theater missile systems, the United

1 States may not have symmetrical, proportional, effective,
2 and credible responses in hand. And that dilemma could
3 become especially sharp if Washington's relatively small
4 inventory of non-strategic nuclear weapons is needed to
5 deter limited nuclear threats by two major power adversaries
6 at the same time.

7 The second implication is for U.S. extended nuclear
8 deterrence arrangements. Theater nuclear forces could
9 enable Beijing to drive wedges between the United States and
10 its allies and partners. In other words, Washington could
11 face dilemmas similar to those that it confronted during the
12 Cold War when Soviet investments in theater nuclear systems
13 that could target European allies without striking the U.S.
14 homeland raised decoupling concerns that required skillful
15 alliance management to address. If so, the United States
16 might need to consider binding itself and its allies more
17 tightly together, for instance, by pursuing nuclear sharing
18 arrangements with Japan and South Korea, not unlike those
19 that exist with select NATO allies.

20 The third and final implication is a broader one for
21 U.S. defense planning, namely that China's nuclear buildup
22 will require the United States to prepare for a wider range
23 of threats. To date, the Department of Defense, in
24 particular, is focused on the challenges posed by a PLA air
25 and amphibious assault against Taiwan as well as PLA attacks

1 against U.S. ports, forward-operating forces, air bases, and
2 information networks. China's nuclear buildup could open up
3 new avenues of coercion against Taiwan, some of which, like
4 the early resort to limited nuclear threats in lieu of
5 invasion, could seem appealing to leaders in Beijing while
6 posing considerable difficulties for policymakers in
7 Washington.

8 Thank you for your time. I look forward to your
9 questions.

10 [The prepared statement of Mr. Montgomery follows:]

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1 Senator King: I want to thank all of our witnesses.
2 This has been amazingly provocative and thoughtful and
3 information, so I want to thank you.

4 It seems to me -- I mean, I think of the formula for
5 deterrence as will plus capacity, and will is a hard thing
6 to measure and quantify. I think you testified about the
7 software of nuclear deterrence, and statements, policies,
8 doctrines are important. Capacity, though, is something
9 that can be measured. And I think all of you -- well, I
10 will ask -- do any of you disagree with the proposition that
11 we do not have sufficient low-level, regional deterrent
12 capacity while we are deployed? Does anybody disagree with
13 that?

14 Mr. Weaver: Senator, I not only agree with it, I also
15 think that if we were to take steps to correct that --

16 Senator King: I think your mic is not on.

17 Mr. Weaver: Yeah. I not only do not disagree with
18 that, I think that if we were to take steps to correct that
19 problem, to actually bolster our theater nuclear
20 capabilities, it would actually help work part of the
21 software problem, which is we would be demonstrating that we
22 have the will to address this problem, even though it is
23 politically fraught, potentially, in our alliances.

24 Senator King: Believe it or not, I wrote my senior
25 thesis on this subject. I will not tell you how many years

1 ago it was, but Admiral Roberts at STRATCOM tried his best
2 to get naval intelligence to find it, but I could not find
3 it.

4 But it seems to me that the strategic dilemma is that
5 if all we have is massive retaliation, it is not credible
6 that we would use that in case of a tactical use in Ukraine
7 or Southeast Asia or Northeast Asia. So that is really the
8 dilemma.

9 And I will ask the question I know you are going to
10 ask. SLCM/N is not funded in the current budget. It was
11 funded for R&D last year. This year it is zero. Is that
12 not correct? But, Mr. Weaver, you testified that you
13 thought that was the most logical forward deployed, and you
14 gave five reasons why. I do not mean to have you repeat
15 your testimony but I am a little puzzled why that is not in
16 the budget.

17 Mr. Weaver: Well, Senator, I was involved in the 2018
18 Nuclear Posture Review that recommended it and the Joint
19 Staff, and I was also involved in the '22 Posture Review
20 with the administration decided not to do it. As you know,
21 the Chairman recommended SLCM/N.

22 There are, as I said in my statement, there are other
23 theater nuclear options we could pursue. We could build
24 mobile, land-based systems. But when you take the full look
25 at the set of attributes that most address the nature of our

1 theater deterrence problem, in both Europe and Asia, I
2 believe SLCM/N is the best option we have readily available.
3 Now if you want to invent something completely new and have
4 it take longer to get -- and we do not have much time --

5 Senator King: We do not need to invent a platform. We
6 have the platform.

7 Mr. Weaver: Exactly, and we have the platform already.

8 Senator King: Dr. Roberts, do you agree with this line
9 of discussion?

10 Mr. Roberts: I do. We have just concluded -- three of
11 the four of us just concluded a study group report on
12 dealing with the emergence of a second nuclear peer, and its
13 implications of two nuclear peers for our nuclear strategy,
14 a bipartisan group, and we have a strong endorsement for
15 SLCM/N in the report.

16 Senator King: Well, another danger, other than the
17 weakness of the deterrent, it seems to me, is an incentive
18 to our allies to develop their own nuclear capability. As
19 you suggested, the President of South Korea sort of
20 speculated on that some time ago. But at some point they
21 are going to say, "Well, if we cannot rely on a reliable,
22 credible deterrent, we have got to develop our own
23 capacity." In a sense, our extended deterrent, it seems to
24 me, is a proxy for those other countries developing their
25 own capability, which, from a proliferation point of view,

1 is a good thing. Ms. Bunn?

2 Ms. Bunn: I am one who has reluctantly come to the
3 conclusion that we do need a TLAM/N in this discussion group
4 that we are talking about. I am sorry, SLCM/N. Did I say
5 TLAM/N? SLCM/N. Many battles in my career over TLAM/N.
6 And why was I reluctant? Because SSNs do have many
7 missions, and I also fought many battles with the Navy. I
8 am just not sure the Navy will ever fully support this
9 because we fought many battles trying to keep TLAM/N in the
10 force before it was retired.

11 So that was my reluctance. But I do think that we need
12 it for -- if we decide, if the U.S. decides we need it for
13 deterring and responding to limited use, then we should go
14 forward with it. We should fund it. Right now I do not
15 think we can pin it on allies are asking for it. I have not
16 heard a lot of allies talking about it specifically.
17 Usually in conference if it is raised, it is raised by
18 Americans. But I suspect they do not want to get in the
19 middle of a policy debate in the U.S.

20 Senator King: But they want the extended deterrence.

21 Ms. Bunn: They want capabilities. If they are
22 concerned that either adversaries do not think we would use
23 the capabilities we have now because they are not
24 appropriate -- they are too high yield, they cannot get
25 through, various reasons we would not use those -- then they

1 have good analysts. They want us to have something that we
2 can see actually, that our adversaries could see us actually
3 employing. If they do not think you would ever use it, then
4 it does not deter.

5 Senator King: Well, I am over my time. I want to turn
6 it over to Senator Fischer. But the whole point here is to
7 never have these weapons used, and we do not want an
8 adversary to think that they can use a low-level weapon and
9 pay no significant price, which gets us to the place where
10 we are in a nuclear confrontation.

11 Senator Fischer.

12 Senator Fischer: Thank you, Senator King.

13 On Saturday, March 25th, President Putin, he announced
14 that Russia is going to station tactical nuclear weapons in
15 Belarus, and he also informed us that an agreement had been
16 made with Belarus to equip 10 of the Belarusian aircraft
17 with tactical nuclear weapons, along with their Iskander
18 mobile short-range ballistic missile system. It was
19 fascinating, I thought, that he did this. Obviously, I got
20 a very strong message that he would do this, first of all,
21 take the action, and secondly, tell us what he did.

22 Mr. Weaver, let us start with you. How do you think
23 that this action is going to change the nuclear deterrence
24 dynamic that we see in Europe right now?

25 Mr. Weaver: So, Senator, I do not believe Russian

1 deployment of some of their non-strategic capabilities to
2 Belarus changes the military equation in Europe at all. It
3 is a political move. The Russians have long complained that
4 we have nuclear weapons forward based in Europe on the
5 territory of our allies and that we have nuclear sharing
6 arrangements with them.

7 Senator Fischer: And they made it clear. This was not
8 for Belarus to use. It was for Belarus to use for Russia.

9 Mr. Weaver: Right. But the Russians have somewhere
10 between 1,500 and 2,000 non-strategic nuclear weapons today.
11 They are embedded throughout their conventional forces
12 across the Russian Federation. Moving a few of them forward
13 now into Belarus really does not change the military
14 equation. They range anybody in NATO that they want to with
15 the existing systems they have, including the SSC-8 ground-
16 launched cruise missile that has a range of about 2,000
17 kilometers, that violated the INF Treaty and led to our
18 withdrawal.

19 So they can threaten NATO throughout its depth, and
20 they have always had the ability to move Russian forces
21 forward into Belarus in the event of a conflict, in any
22 event. So I do not think it changes the military equation
23 but it is a political signal.

24 Senator Fischer: Dr. Roberts and Ms. Bunn, do you
25 agree with that?

1 Ms. Bunn: Yes, I would agree with that. It will be
2 interesting. The Russians, and now the Chinese in NPT
3 meetings have complained about NATO nuclear sharing, and I
4 do not know if this will change their rhetoric on that at
5 all. Probably not.

6 Senator Fischer: Dr. Roberts, anything to add on that?

7 Mr. Roberts: Same essential view. The Russian
8 military strategy for local war, which is what it claims to
9 be fighting, as opposed to a regional war against a large
10 coalition, that strategy is in part about keeping it local,
11 keeping the outsiders out, casting a long shadow, making us
12 fearful that if we engage we will pay a terrible price. And
13 President Putin has to keep beating that drum one way or
14 another. And I think this is just one more sign of his
15 effort to alarm us, but it does not change the military
16 equation.

17 Senator Fischer: Dr. Roberts, between recent news of
18 Russia's noncompliance with the START Treaty, China's
19 modernization rate, and North Korea's daily shows of force,
20 we also see Iran's nuclear weaponization capability. How
21 should the U.S. focus our regional nuclear strategy? If we
22 are talking about regions, how do we focus that?

23 Mr. Roberts: Well, I do not think we have the luxury
24 of prioritizing. One of the big questions in the Two Peer
25 Study was do you prioritize one over the other, or the first

1 contingency over the possible second one? And our
2 conclusion was, we cannot afford to do that. Too much risk.
3 It is giving a green light to aggression in the area you
4 have not prioritized.

5 So, my take on this is that the complex landscape you
6 describe renders essentially out of date the bet we placed
7 in 1991, the bet that we could do regional deterrence
8 essentially with our strategic forces and a little bit of
9 theater nuclear force. And the rebalance has to come
10 between those two elements of the bet we placed. So, with
11 the rest of the group, I think more weapons and a more
12 diverse toolkit at the regional level are in our interest
13 and in the interest of our allies.

14 But let us be clear. I do not think any of us are
15 arguing that the U.S. and its allies should have a regional
16 nuclear posture that is symmetric to that of Russia or China
17 or North Korea. We have different strategies, so we need
18 different numbers and different types of weapons.

19 Senator Fischer: Would you say there are plans out
20 there now that would address that? Has planning taken
21 place? Do you know?

22 Mr. Roberts: Capability development or operational
23 planning?

24 Senator Fischer: Both.

25 Mr. Roberts: Both.

1 Senator Fischer: Both. You said it. It is not the
2 same. It is not the same.

3 Mr. Roberts: Correct.

4 Senator Fischer: You have to address each one
5 individually. So do you know of any plans that have taken
6 place either within government or outside of government?

7 Mr. Roberts: So for development of new capability, the
8 Administration certainly has a plan.

9 Senator Fischer: Right.

10 Mr. Roberts: In my view, it needs to evolve in the
11 direction we have talked about. Operational planning, of
12 course the STRATCOM commander stands ready to do what might
13 need to be done tonight. But I bear in mind the findings of
14 the National Defense Strategy Commission of 2018, which
15 concluded, as you will recall, that the United States could
16 well lose a war against a nuclear-armed rival, largely not
17 because we have the wrong capabilities, but because we have
18 not understood the nature of the war that is being waged
19 against us. We have not done our intellectual homework. We
20 have not developed the concepts we need to organize our
21 operational planning and conduct operations. I do not know
22 to what extent that remains true, but that was an important
23 marker that rang a lot of alarm bells for me.

24 Senator Fischer: Thank you. Thank you, Mr. Chair.

25 Senator King: This is the third Armed Services hearing

1 I have been at today, and the question that you just touched
2 upon has come up at all three, which is the change nature of
3 modern warfare, and the likelihood of a modern conflict
4 starting with cyber, directed energy, electronic warfare,
5 space capabilities. I asked the Marine general today if his
6 landing ships would be okay with no GPS and no
7 communications. That is the world that we have to live in.

8 So this is beyond the scope of this hearing to some
9 extent, but I would be interested in your thoughts about,
10 the cliché is generals always fight the last war. Are we
11 doing that or are we adequately taking account of the change
12 strategic, not only the strategic landscape but the
13 technological landscape. Wars are often won on whoever has
14 the newest technology.

15 Mr. Montgomery, your thoughts.

16 Mr. Montgomery: I do believe we are. To some extent,
17 at least when we talk about this in the nuclear domain I
18 think we may overemphasize some of those changes in
19 technology. They are very worrisome. They are concerning.
20 They certainly pose risks to command and control, which is a
21 serious concern. But at the end of the day, when we are
22 talking about strategic stability between major powers, it
23 ultimately comes back to the ability of one side to pose a
24 disarming threat against another one. And right now we have
25 Russia, that does not quite pose that capability but is a

1 nuclear peer, China apparently aspires to be a nuclear peer,
2 and those buildups are not unrelated to but separate from
3 those very novel aspects of future warfare.

4 So I think while important, it is still essential to
5 keep our focus, at least again in the nuclear domain, in
6 terms of delivery system warheads, yields, accuracy, et
7 cetera.

8 Senator King: Well in command and control, I have
9 always said we do not have a triad. We have a quad, that
10 command and control is an essential --

11 Mr. Montgomery: Absolutely.

12 Senator King: -- part of the credibility of the
13 deterrent, which is essentially providing a deterrent.

14 Let me ask another question. We have talked about peer
15 adversaries and Russia and China particularly. What about
16 nuclear-armed countries that we are not engaged with
17 directly, India and Pakistan being an example? What role,
18 if any, do we have in their potential use of nuclear
19 weapons? One of the things that I think that may be
20 deterring Russia is after Hiroshima they have never been
21 used. Nobody wants to be the first person to use them
22 again, and I think that is something of a deterrent. I
23 suspect that China is communicating that to Russia.

24 What about Pakistan and India? Ms. Bunn, do you have
25 thoughts?

1 Ms. Bunn: That is a hard one because I think we have
2 less influence. They are not our adversaries.

3 Senator King: Right.

4 Ms. Bunn: And they are not our formal extended nuclear
5 deterrent allies. And so they are in a different category
6 as far as how we deal with them and how we can influence
7 them, how we deal with them as adversaries or how we can
8 influence them as allies.

9 Senator King: The last thing we want is to normalize
10 the use of nuclear weapons.

11 Ms. Bunn: Absolutely. I would certainly agree with
12 you that trying to make sure that nuclear weapons are not
13 used again is one way to keep that diplomatic psychological
14 pressure on them not to be the ones to do it.

15 Senator King: Other thoughts on this issue?

16 Mr. Weaver: Could I add one thing on it, Senator?

17 Senator King: Sure.

18 Mr. Weaver: So I think another aspect of the question
19 you are asking is when and if there is another limited use
20 of nuclear weapons in a conflict, what lessons will all the
21 other nuclear states -- and non-nuclear states -- draw from
22 the outcome of that use? And that is another reason why it
23 is so important that we focus on this problem of being able
24 to deter limited nuclear use effectively, with high
25 confidence, and second, if deterrence fails in a limited way

1 that we have the ability to counter the effects of
2 adversary-limited nuclear use so that they do not win the
3 conflict as a result. They are not seen as having won
4 because they used nuclear weapons, because that would create
5 a huge proliferation problem around the world.

6 Senator King: Well, I commented in my opening
7 statement about the doctrine of "Escalate to Deescalate."
8 The Russians have told us that is their doctrine, and for us
9 to not take that seriously it seems to me is a major
10 strategic and tactical mistake. I mean, Maya Angelou says
11 when somebody tells you who they are, you should believe
12 them. And they have told us who they are on this subject,
13 and we need to be sure that we have a credible deterrent
14 that does not involve a massive strike, which they do not
15 think we will do, if they use a one-kiloton weapon on
16 Kharkiv. Dr. Roberts?

17 Mr. Roberts: I just wanted to add a comment on your
18 comment about no one wants to break the taboo. I hope that
19 is true, but President Putin seems like a guy who has gotten
20 a lot of power and influence out of breaking taboos. You
21 know, in 2014, he stood under the banner when he explained
22 his annexation of Crimea, the banner saying, "New Rules or
23 No Rules." And he has been living the "no rules" game and
24 generating a lot of power and fear accordingly.

25 The taboo against the employment of nuclear weapons is

1 one of the last major taboos he has not broken. I hope he
2 does not break it, but I am not convinced that he thinks
3 preserving the taboo is important.

4 Senator King: Well, we have to give him a reason in
5 terms of what he will reap as a consequence --

6 Mr. Roberts: That is right.

7 Senator King: -- beyond the taboo. We cannot rely on
8 the taboo to protect us, I think.

9 Mr. Roberts: That is right. Absolutely.

10 Senator King: I would like to like, are either of our
11 Senators intending to come back? Okay.

12 Senator Fischer.

13 Senator Fischer: I just want to really thank you for
14 being here today. I think these discussions are extremely
15 helpful to, first of all, educate the Members of Congress,
16 but also to educate our public as well to the threats that
17 this country faces.

18 When we look at North Korea, they have various
19 missiles. They have ICBMs. They have long range, short
20 range. They have an underwater nuclear attack drone now
21 that is out there. You know, we obviously are developing
22 things as well, but when we see other countries doing this,
23 how does that affect us in our decision-making, to counter
24 and provide deterrence, not just for the weapons, which we
25 have talked about -- tactical weapons, weapons in theater,

1 the changes we see there regionally -- but also the
2 platforms?

3 Dr. Montgomery, you are nodding your head.

4 Mr. Montgomery: I often do. Two points. I think
5 there is a quantitative dimension to this and a qualitative
6 dimension. So quantitatively, when you see countries like
7 North Korea building up their forces -- and we are not
8 talking about a rogue state with 10 or 15 nuclear weapons,
9 but potentially a regional nuclear power with 50 or 100
10 nuclear weapons -- those numbers matter. And it becomes
11 potentially more difficult for the United States with say,
12 1,550 treaty-accountable strategic warheads, to manage
13 threats from and deter a peer in Russia, an aspiring peer in
14 China, a North Korea with a significant arsenal. That is a
15 lot of weapons to measure up against.

16 In terms of the qualitative dimension, if you look at
17 the diversity and capabilities that a country like North
18 Korea is investing in -- and, Senator King, this ties to
19 your question about Pakistan and India as well -- Pakistan
20 also has made investments in low-yield nuclear capabilities.
21 So now we see Russia placing significant emphasis on low-
22 yield nuclear weapons, Pakistan placing significant emphasis
23 on low-yield nuclear weapons, North Korea investing in low-
24 yield nuclear weapons, and potentially China exploring low-
25 yield nuclear weapons. We should probably take that message

1 that a lot of adversaries and potential adversaries or
2 countries we have difficult relations with see a lot of
3 value in these capabilities and think about what
4 deficiencies in our arsenal might exist that could
5 potentially undermine deterrence, relative to those systems.

6 Senator Fischer: And it also limits the options that
7 can be presented to our President to make decisions in a
8 short period of time, in response to actions of other
9 nations. Correct?

10 Mr. Montgomery: Absolutely. You know, we talk about
11 our strategic forces, one of their key attributes being
12 promptness. Promptness, I do not think, is an attribute you
13 would ascribe to some of the limited low-yield nuclear
14 options that we have. And that does mean that the options
15 available to the President in a crisis that are time
16 sensitive are limited.

17 Senator Fischer: Any other comments on that?

18 Mr. Roberts: Sure. You asked about how we react
19 watching these developments. And for a long time we watched
20 and did not react. For a long time it was unthinkable to us
21 that these things mattered because, after all, we had
22 conventional dominance, we had confidence in our strategic
23 nuclear deterrent, and we did not see -- the problem, the
24 threat remained unthinkable. It was just implausible to
25 most in the U.S. national security community that an

1 adversary might ever contemplate the possibility of
2 employing a nuclear weapon in a conflict with the United
3 States and somehow escaping intact.

4 And our view began to shift, principally as a result of
5 the Russian annexation of Crimea, a wake-up call. As Ash
6 Carter said at the time, it was time for a "new playbook on
7 Russia," and we discovered a need for a new playbook on
8 North Korea, a new playbook on China, and now we are all
9 trying to create that new playbook.

10 Senator Fischer: Thank you. Thank you, Mr. Chair.

11 Senator King: Well, again I want to thank you. I
12 cannot help but mention something that bothers me in this
13 field. It turns out that no President since Jimmy Carter
14 has participated in a nuclear exercise, an attack exercise,
15 in real time. I find that puzzling. I mean, I do not the
16 President to walk into that room for the first time in a
17 real-life situation. I have gone through several of those
18 exercises, and it is terrifying but also educational.

19 So that is neither here nor there, but I find it
20 striking that, as I say, no President, apparently since
21 Jimmy Carter, has participated in such an exercise, which I
22 do not get.

23 Thank you all very much for your testimony today. It
24 has been very informative, as I said, and helpful to this
25 subcommittee as we prepare for the National Defense Act that

1 is coming up in a couple of months.

2 Thank you again. The hearing is adjourned.

3 [Whereupon, at 5:47 p.m., the hearing was adjourned.]

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