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**THE NATIONAL DEFENSE STRATEGY AND
THE NUCLEAR POSTURE REVIEW**

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ONE HUNDRED FIFTEENTH CONGRESS

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THE NATIONAL DEFENSE STRATEGY AND THE NUCLEAR POSTURE REVIEW

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
Washington, DC, Tuesday, February 6, 2018.

The committee met, pursuant to call, at 9:36 a.m., in room 2118, Rayburn House Office Building, Hon. William M. “Mac” Thornberry (chairman of the committee) presiding.

OPENING STATEMENT OF HON. WILLIAM M. “MAC” THORNBERRY, A REPRESENTATIVE FROM TEXAS, CHAIRMAN, COMMITTEE ON ARMED SERVICES

The CHAIRMAN. The committee will come to order.

The committee meets today to hear testimony on the administration’s National Defense Strategy and Nuclear Posture Review, both of which were recently released. We welcome back the Secretary of Defense and the Vice Chairman of the Joint Chiefs of Staff to discuss these important documents.

I cannot count the number of times I have heard members of this committee talk about the importance of having a defense strategy to help guide decisions that we and the executive branch have to make. Now we have one. It is a component of the broader National Security Strategy released in December, and it has within it the Nuclear Posture Review, the first of its kind since 2010. A lot has changed since 2010, and both documents come at a critical time.

As the National Security Strategy points out, quote, “America’s military remains the strongest in the world. However, U.S. advantages are shrinking as rival states modernize and build up their conventional and nuclear forces,” end quote.

There will undoubtedly be criticism of both documents. Some of it will be based on valid shortcomings; some of it may spring from more ideological differences. Debates about the particulars are fair and to be expected. But it is also fair, I think, to commend the administration for its attempt to bring structure and rationality to our wide-ranging national security efforts in what is surely a dangerous and volatile world.

One last point: We must never forget that, with any strategy, the heart of our Nation’s defense, our most valuable asset, remains the people who serve. It is morally wrong to send brave men and women out on missions under any strategy for which they are not fully trained, equipped, and supported with the best that this country can provide. That support should not be conditioned on any other issue. And we can never forget that there is a real human cost to failing to fully support them. Strategy is important, but nothing is more important for Congress than for us to do our job

to support the men and women who protect us fully and unconditionally.

I yield to the ranking member.

[The prepared statement of Mr. Thornberry can be found in the Appendix on page 33.]

**STATEMENT OF HON. ADAM SMITH, A REPRESENTATIVE FROM
WASHINGTON, RANKING MEMBER, COMMITTEE ON ARMED
SERVICES**

Mr. SMITH. Thank you, Mr. Chairman.

And thank you, Secretary Mattis, General Selva. I appreciate you both being here. And I very much appreciate the fact that, as the chairman said, you have put out the National Security Strategy. That is obviously a crucially important step in figuring out how we put together our budget and how the Department of Defense does its job.

And I will start by agreeing with the last point that the chairman made. I think it is the most important one, and that is whatever our strategy is, whatever it is that we tell the men and women who serve in our military, this is what we expect you to do.

It is our paramount obligation to make sure that we fund that, that we do not have a situation where we give them so many tasks but not enough resources to train for them. I think we can—that is the definition of a hollow force, when we send them into battle unprepared to do what we had told them to do.

And, unfortunately, due to a lot of the budgetary challenges that we have had in the last 6 or 7 years, that has been happening far too often, because we have lurched from continuing resolution to government shutdown, to continuing resolution, to sometimes an appropriations deal.

It is very difficult for both of you and for your predecessors to plan what you are going to do when you do not know how much money you are going to have one week to the next. I think that is a very significant problem.

So I appreciate the strategies put together. My biggest concern is, does it match the amount of resources that we are likely to have to fund it. We are \$21 trillion in debt, and counting. The deficit last year was close to \$700 billion, and it is going up, not down.

So how do we make this fit? How does this work? And then when you look at the broader picture, and we just cut taxes by what is going to amount to \$2 trillion. The immediate short-term impact of that is that we are going to hit the debt ceiling sooner than we had expected to because less revenue is coming into the Treasury, so we will have to go ahead and do that.

So in the face of a \$21 trillion debt, \$700 billion deficit, and all of the needs that the chairman outlines—and your strategy lays it out, and I think in this committee, certainly, we all know the list. It is sort of up on the wall over there, minus Iran and the threat from radical Islamist extremists—those are the threats that we face and how do we meet them.

In the face of all of that, we decided to give away \$2 trillion. And I could make an argument that in so doing, this Congress made a public policy decision that we were not going to fund defense at the levels that this committee thinks they should. We decided not to

fund it and then, okay, well, there is other places we can get the money.

But the President has said he is not going to reform mandatory spending at all. The State of the Union Address promised more money than I think I can possibly imagine. And as a side note, I think we ought to ban the State of the Union Address—and I say that for Democrats and Republicans alike—because the main thing that it does is it gives the Executive a chance to stand up there and promise things that are absolutely, utterly, and completely impossible to deliver. And then the American public comes to expect it and rightfully gets a little bit irritated when magic does not make it happen. And, again, that is bipartisan. Every State of the Union Address I have seen since I have been here I have walked out of there thinking, we do not have that money. What is he talking about? So we need to make improvements on that, to be sure.

And I worry greatly about how this strategy is going to be implemented in the face of our debt and our deficits. And if interest rates go up—I mean, we have been incredibly lucky that we have been able to borrow all this money on the cheap. If interest rates go up to 3 percent, you can forget about all this stuff.

And I do not blame that on the defense budget. I understand it is a piece of it. It is 17 percent of the budget. But our overall budget picture does not add up, and I worry that, ultimately, that will wind up costing the men and women who serve, costing our ability to give them the training and the equipment they need to carry out the missions that we all hear—that we need.

The last thing I would say and what I want to hear is, as I said, we have the list: China, Russia, North Korea, Iran, violent Islamist extremist groups. How do we confront those threats and protect our country? I just want to make a couple quick comments on that.

There is a common thread between all of those threats, and that is a threat to representative democracy, freedom, and capitalism. All of those groups want to make the world safe, I guess, for autocratic dictatorships. Then each one of them has a slightly different viewpoint on what that dictatorship should look like, but it is a fundamental threat to democracy and representative government.

And I think we need to understand it in that context and push back comprehensively to try and create a world that is safe for freedom and democracy, because I think that is incredibly important in keeping a peaceful and prosperous world.

And lastly, I am interested in hearing from you—we hear a lot from the military about what you do not have, about where we are not spending enough money, about the threats that we are not meeting. If we are going to get to where we need to go, we need to hear where can we save money, you know, what part of our National Security Strategy could we not spend money on. Because if we do not hear places where we can save money, there is no way we are going to have enough money to meet all the places where we are being told that we need it. We need to hear that.

And I want to say that I think your leadership at DOD [Department of Defense] and the leadership that came before under Ash Carter has really—and the leadership of the chairman, has done a good job at getting at procurement reform, getting at, you know, trying to get more out of the money that we spend and pulling com-

mercial technology, a bunch of different ideas that can enable us to get more for less money.

But that is never going to be more important than it is going forward, given the fiscal situation that we are in and given the threat environment that is as described. How do we meet that? So we are going to have to be a lot smarter about how we spend our money, given the situation that we are in.

With that, I yield back, and I look forward to your testimony.

[The prepared statement of Mr. Smith can be found in the Appendix on page 34.]

The CHAIRMAN. The committee is pleased to welcome the Secretary of Defense, Honorable James Mattis, and the Vice Chairman of the Joint Chiefs of Staff, General Paul Selva.

Gentlemen, thank you for being here. Without objection, your full written statements will be made part of the record.

Mr. Secretary, you are recognized for any comments you would like to make.

**STATEMENT OF HON. JAMES N. MATTIS,
SECRETARY OF DEFENSE**

Secretary MATTIS. Well, thank you, Chairman Thornberry, Ranking Member Smith, and distinguished members of the committee. I am here at your invitation to testify on two subjects: the 2018 National Defense Strategy and the Nuclear Posture Review. I am joined by the Vice Chairman of the Joint Chief, General Selva.

Even in the midst of our ongoing counterterrorism campaigns, my role is to keep the peace for one more year, one more month, one more day, giving Secretary Tillerson and our diplomats time to resolve crises through diplomatic channels. The Department of Defense does this by providing the Commander in Chief with military options that ensure our diplomats negotiate from a position of strength.

Upfront, I need to note, 3 days from now I will visit our Nation's first security force assistance brigade in Fort Benning, Georgia, as they prepare to deploy to Afghanistan. To advance the security of our Nation, these troops are putting themselves in harm's way, in effect, signing a blank check payable to the American people with their lives. They do so despite Congress' abrogation of its constitutional responsibility to provide sufficient, stable funding.

Our military have been operating under debilitating continuing resolutions for more than 1,000 days during the past decade. These men and women hold the line for America while lacking this most fundamental congressional support: a predictable budget.

Congress mandated—rightfully mandated this National Defense Strategy, the first one in a decade, and then shut down the government the day of its release. Today, we are again operating under a disruptive continuing resolution. It is not lost on me that as I testify before you this morning, we are again on the verge of a government shutdown, or at best, another damaging continuing resolution.

I regret that without sustained predictable appropriations, my presence here today wastes your time, because no strategy can survive, as you pointed out, Chairman, without the funding necessary to resource it. Yet we all know that America can afford survival.

Nations as different as China and Russia have chosen to be strategic competitors. They seek to create a world consistent with their authoritarian models and pursue veto power over other nations' economic, diplomatic, and security decisions. Rogue regimes like North Korea and Iran persist in taking outlaw actions that undermine and threaten regional and global stability. And despite our successes to date against ISIS's [Islamic State of Iraq and Syria's] physical caliphate, violent extremist organizations continue to sow hatred, incite violence, and murder innocents. Across the globe, democracies are taking notice.

We recognize great power competition is once again a reality. We will continue to prosecute the campaign against terrorism by, with, and through our allies. But in our new defense strategy, great power competition—not terrorism—is now the primary focus of U.S. national security.

Our military remains capable, but our competitive edge has eroded in every domain of warfare: air, land, sea, cyber, and space. Under frequent continuing resolutions and sequesters, budget caps, our advantages continue to shrink. The combination of rapidly changing technology, the negative impact on military readiness resulting from the longest continuous stretch of combat in our Nation's history, and insufficient funding have created an overstretched and underresourced military.

During last week's State of the Union Address, President Trump said weakness is the surest path to conflict. To those who might suggest that we should accept a yearlong continuing resolution, it would mean a return to a disastrous sequestration level of funding for the military. And in a world awash in change and increasing threats, there is no room for complacency. History makes clear that no country has a preordained right to victory on the battlefield.

Framed within President Trump's National Security Strategy and aligned with the Department of State, our 2018 National Defense Strategy provides clear strategic direction for America's military. A long-term strategic competition requires the seamless integration of multiple elements of national power, diplomacy, information, economics, finance, intelligence, law enforcement, and military.

The Department's principal priorities are long-term strategic competitions with China and Russia. Given the magnitude of the threats they pose to U.S. security and prosperity today, Congress must commit to both an increased and sustained investment in our capabilities.

Concurrently, the Department will sustain its efforts to deter and counter rogue regimes, such as North Korea and Iran; defeat terrorist threats to the United States; and consolidate our gains in Iraq and Afghanistan, while moving to a more resource-sustainable approach.

More than any other nation, America can expand the competitive space. We can challenge our competitors where we possess advantages and they lack strength. To restore a competitive military edge, this defense strategy pursues three primary lines of effort: to build a more lethal force, to strengthen traditional alliances while building new partnerships, and reform the Department's business practices for performance and affordability.

Our first line of effort emphasizes that everything we do must contribute to the lethality of our military. In war, an enemy will attack a perceived weakness. Therefore, we cannot adopt a single preclusive form of warfare; rather, we must be able to fight across the spectrum of combat. This means the size and composition of our force matters. The Nation must field a sufficient capable force to deter conflict. If deterrence fails, we must win. To defend our way of life, our military will embrace change while holding fast to traditional proven attributes that make us the most formidable force on any battlefield. Those who would threaten America's experiment in democracy must know, if you threaten us, it will be your longest and worst day.

To implement this strategy we will invest in key capabilities, recognizing we cannot expect success fighting tomorrow's conflicts with yesterday's weapons and equipment. Driven by this strategy, next week you will see in our fiscal year 2019 budget investments the following: space and cyber, nuclear deterrent forces, missile defense, advanced autonomous systems, artificial intelligence, and professional military education to provide our high-quality troops what they need to win.

We will prioritize rebuilding readiness while modernizing our existing force. We will also be changing our forces' posture to prioritize readiness for warfighting in major combat, making us strategically predictable for our allies and operationally unpredictable for any adversary.

Our second line of effort is to strengthen traditional alliances while building new partnerships. History is clear that nations with allies thrive. We inherited this approach to security and prosperity from the greatest generation, and it has served the United States well for 70 years. Working by, with, and through allies who carry their fair share is a source of strength. Since the costly victory in World War II, Americans have carried a disproportionate share of the global defense burden while others recovered.

Today, the growing economic strength of allies and partners has enabled them to step up, as demonstrated by more than 70 nations and international organizations participating in the Defeat-ISIS campaign, and again in the 40-some nations standing shoulder to shoulder in NATO's [North Atlantic Treaty Organization's] Resolute Support mission in Afghanistan. Most NATO allies are also increasing their defense budgets, giving credence to the value of democracies standing together.

Our third line of effort serves as the foundation for our military's competitive edge: Reforming the business practices of the Department to provide both solvency and security and thereby gaining full benefit from every dollar spent.

Every day we will earn the trust of Congress and the American people. We must be good stewards of the tax dollars entrusted to us. In this regard, we will deliver our Department's full financial audit this year, because results and accountability matter. The first audit in DOD's history will reveal how we can be better stewards.

The Department is transitioning to a culture of performance and affordability that operates at the speed of relevance. We will prioritize speed of delivery, continuous adaptation, and frequent modular upgrades. With your critical support, we will shed out-

dated management and acquisition processes while adopting American industry's best practices. If current structures inhibit our pursuit of lethality, I expect my service secretaries and defense agency heads to consolidate, eliminate, and restructure to achieve the mission.

One of the key elements of the 2018 National Defense Strategy is to ensure America's military provides a safe, secure, and effective nuclear deterrent. Last January, President Trump directed a Nuclear Posture Review to ensure the United States nuclear deterrent is modern, robust, flexible, resilient, ready, and appropriately tailored to deter 21st century threats and reassure allies.

I recently received a letter from Senators concerned that the 2018 Nuclear Posture Review would undermine decades of U.S. leadership on efforts to reduce and eventually eliminate the existential threat posed by nuclear weapons. To the contrary, the 2018 Nuclear Posture Review reaffirms the mutually reinforcing role of nuclear deterrence in a complex and dynamic security environment, while underscoring continued U.S. commitment to non-proliferation, to counter nuclear terrorism, and to arms control.

Specifically, the review reflects the Department of Defense's strategic priority to maintain a safe and effective nuclear deterrent that will successfully deter nuclear and nonnuclear strategic attacks, assure our allies and partners, respond effectively should deterrence fail, and hedge against future uncertainties and dangers.

The United States remains committed to its global leadership role to reduce the number of nuclear weapons and to fulfill existing treaty and arms control obligations, leadership that has reduced our nuclear weapons stockpile by over 85 percent from its Cold War high. Yet we must recognize that deterrence and arms control can only be achieved with a credible capability.

A review of the global nuclear situation is sobering. While Russia has reduced only the number of its accountable strategic nuclear force, as agreed upon in the New START [Strategic Arms Reduction] Treaty, at the same time, Russia has been modernizing these weapons as well as other nuclear systems.

Moscow advocates a theory of nuclear escalation for military conflict. China too is modernizing and expanding its already considerable nuclear forces pursuing entirely new nuclear capabilities. It is also modernizing its conventional military to challenge U.S. military superiority. Despite universal condemnation in the United Nations, North Korea's nuclear provocations threaten regional and global peace, and Iran's nuclear ambitions remain an unresolved concern. Globally, nuclear terrorism remains a tangible threat.

As Senator McCain said last week, since the end of the Cold War, we have let our nuclear capabilities atrophy under the false belief that the era of great power competition was over. As the new National Defense Strategy rightfully acknowledges, we now face the renewed threat of competition from Russia and China, and we cannot ignore their investments in nuclear weapons in addition to conventional forces.

The 2018 Nuclear Posture Review reaffirms the findings of previous reviews that the nuclear triad comprised of silo-based intercontinental ballistic missiles, bomber aircraft, and nuclear submarines is the most strategically sound means of ensuring nuclear

deterrence. To remain effective, however, we must recapitalize our Cold War legacy nuclear deterrent forces, continuing a modernization program initiated during the previous administration.

To quote my predecessor, Secretary Carter, quote, "We have been in a nuclear arms race for two decades now, but the U.S. has not been running the race," unquote.

And as you can see demonstrated in this chart over here in the corner of the room, that gives credence to my predecessor's observation. The nuclear delivery system development over the last 8 years shows numerous advances by Russia, by China, and by North Korea, versus the near absence of such activity by the United States, with competitors and adversaries developing 34 new systems in that time as compared to only 1 for the United States, the F-35 aircraft.

[The chart referred to can be found in the Appendix on page 47.]

Secretary MATTIS. Nuclear deterrence will continue to play a critical role in preventing nuclear attack and large-scale conventional warfare between nuclear arms states for the foreseeable future. U.S. nuclear weapons assure and defend our allies against conventional and nuclear threats, furthering our nonproliferation goals and increasing global security.

The National Defense Strategy and the Nuclear Posture Review align with the President's National Security Strategy guiding all of our efforts. As I said earlier, no strategy can survive without the necessary stable, predictable funding. Failure to modernize our military risks leaving us with a force that could dominate the last war but be irrelevant to tomorrow's security.

We need Congress to lift the defense spending caps and support the budget for our military of \$700 billion for this fiscal year and \$716 billion for next fiscal year. Let me be clear: As hard as the last 16 years of war have been on our military, no enemy in the field has done as much to harm the readiness of the U.S. military than the combined impact of the Budget Control Act's defense spending caps, worsened by operating for 10 of the last 11 years under continuing resolutions of varied and unpredictable duration.

The Budget Control Act was purposely designed to be so injurious that it would force Congress to pass necessary budgets. It was never intended to be the solution. For too long we have asked our military to carry on stoically with a success-at-any-cost attitude. Our troops work tirelessly to accomplish every mission with increasingly inadequate and misaligned resources simply because Congress has not maintained regular order. The fact that our volunteer military has performed so well is a credit to their dedication and professionalism. We expect the men and women of our military to be faithful in their service, even when going in harm's way. We must also remain faithful to them.

Chairman, as you said in January, "If Congress does not come together to find a way to fund this strategy, Secretary Mattis must explicitly inform Congress and the American people of the consequences of failure."

The consequences of not providing a budget are clear. Even though we are protecting ongoing operations from continuing resolution disruptions, each increment of funding in support of our partners in Afghanistan, Iraq, and Syria requires a 15-day congress-

sional notification. My commanders in the field write to me for help in getting timely and predictable funds for their efforts as they work to execute our strategy against the enemy in the field.

Additionally, should we stumble into a yearlong continuing resolution, your military will not be able to provide pay for our troops by the end of the fiscal year. We will not recruit the 15,000 Army soldiers and 4,000 Air Force airmen required to fill critical manning shortfalls. We will not maintain our ships at sea with the proper balance between operations and time in port for maintenance. We will ground aircraft due to a lack of maintenance and spare parts. We will deplete the ammunition, training, and manpower required to deter war, and delay contracts for vital acquisition programs necessary to modernize the force.

Further, I cannot overstate the impact to our troops' morale from all this uncertainty.

Today, as I sit here, we are engaged in prudent planning in the Pentagon for another disruptive government shutdown. You know that I cannot care more about our country's defense than this Congress, for it is Congress alone which has the constitutional authority to raise and support armies and to provide and maintain a navy.

We need Congress back in the driver's seat, not in the spectator's seat of the Budget Control Act's indiscriminate and automatic cuts. I know that in time of a major war, Congress will provide our military with all it needs. But money at the time of crisis fails to deter war. And you know we would be at that point to have nothing—no time to prepare, as it takes months and years to produce the munitions, the training, and readiness required to fight well.

To carry out this strategy you rightly directed we develop, we need you to pass a budget now. If we are to sustain our military's primacy, we need budget predictability. Congress must take action now to ensure our military's lethality is sufficient to defend our way of life, to preserve the promise of prosperity, and to pass on the freedoms we enjoy to the next generation. And I ask that you not let disagreements on domestic policy continue to hold our Nation's defense hostage.

General Selva will now discuss the military dimensions of the 2018 National Defense Strategy and our Nuclear Posture Review. Thank you.

[The prepared statement of Secretary Mattis can be found in the Appendix on page 37.]

The CHAIRMAN. General Selva.

STATEMENT OF GEN PAUL J. SELVA, USAF, VICE CHAIRMAN OF THE JOINT CHIEFS OF STAFF

General SELVA. Thank you.

Mr. Chairman, Ranking Member Smith, and distinguished members of the committee, thank you for the opportunity to join Secretary Mattis to brief on the National Defense Strategy and the Nuclear Posture Review.

General Dunford and I, along with the Joint Chiefs of Staff, fully support the strategies outlined in the National Defense Strategy and in the Nuclear Posture Review. Both documents are the product of significant consultation and collaboration between members

of the Joint Staff and the OSD [Office of the Secretary of Defense] staff.

The National Defense Strategy provides detailed defense policy guidance for military strategy, planning, and operations. Therefore, the chairman's 2016 classified National Military Strategy will require an update to maintain complete consistency with the National Defense Strategy and the President's National Security Strategy released in December.

Immediately upon release of the National Defense Strategy published last month, General Dunford directed the Joint Staff to commence a revision of the National Military Strategy, and that process is now underway. Other subsequent guidance and plans will be revised in turn to support the lines of effort outlined in the National Defense Strategy and to operationalize the concept of Dynamic Force Employment.

Additionally, we have begun to review the Joint Staff's organization and processes to determine if we need to make adjustments to support the chairman's global integrator responsibilities and to better position the chairman to support the Secretary's decision-making processes.

Refining the National Military Strategy and the Joint Staff's organization and processes are a step towards increasing the lethality and flexibility of the joint force in light of the reemergence of great power competitions.

The Nuclear Posture Review also reflects the realities of today's security environment, as well as projecting the future environment and its potential impacts on U.S. nuclear weapons policy and strategy. More specifically, the Nuclear Posture Review paid particular attention to Russian, Chinese, and North Korean activities intended to develop, modernize, and expand their nuclear weapons capabilities and to integrate them into their military strategies and doctrine. The Nuclear Posture Review takes into account the potential for Iran to renew its pursuit of nuclear weapons and capability in the future.

The review has determined that our strategy must be tailored to each of these potential adversaries to effectively communicate the cost of aggression, and this tailored strategy approach requires that the United States maintain a flexible and credible mix of nuclear and conventional capabilities that can address a spectrum of adversaries and threats over a significant period of time. It should not be lost on this committee that the Nuclear Posture Review conducted its assessment across a 30-year swath of the future.

The Nuclear Posture Review reaffirms the Nation's nuclear triad as the bedrock of our ability to deter aggression, assure our allies, and hedge against an uncertain future. And as the Secretary has mentioned, it reaffirms the need to recapitalize each component of our legacy nuclear systems to ensure that our nuclear capabilities remain ready, secure, capable, and credible now and into the future.

Two supplemental capabilities recommended in the Nuclear Posture Review, the nuclear-armed sea-launched cruise missile and a modification of a small number of existing submarine-launched ballistic missile warheads, would enhance deterrence by ensuring that no adversary under any set of circumstances can perceive an ad-

vantage through the use of a limited nuclear escalation or other strategic attack.

Fielding these capabilities will not lower the threshold at which the United States would employ nuclear weapons; rather, it will raise the nuclear threshold for potential adversaries, making the use of nuclear weapons less likely.

Nuclear weapons pose the only existential military threat to our Nation. Therefore, there is no higher priority for the joint force than fielding all of the components of an effective nuclear deterrent to deter potential adversaries from nuclear attack on any scale.

It is important to note that the National Defense Strategy and the Nuclear Posture Review both make the assumption that the military will receive timely, predictable, and sufficient funding to execute these strategies. As General Mattis has emphasized, we in uniform appreciate the support of this committee and Congress, and we trust that Congress will provide the funding needed to turn these strategies into reality.

Mr. Chairman, Ranking Member Smith, thank you for your time. We look forward to your questions.

[The prepared statement of General Selva can be found in the Appendix on page 52.]

The CHAIRMAN. Thank you.

Let me just take a moment and give members a heads-up on what our schedule looks like today. We are going to have votes on the floor at about 11:30. The Secretary and General Selva were gracious to move the start time of this hearing up to 9:30 to try to give us more time to get in questions before the votes. But we are still not going to have time to get to everybody. So we are going to do the best we can until we have votes. We are going to break and go to the floor, and then we will reconvene after votes in a closed, classified session so that we can get further details about the National Security Strategy.

Now, the Secretary still has to be over in the Senate later today, so—but I think that is the best combination of things to give us the most useful information in both public and in a classified session.

Mr. Secretary, I was sitting here thinking that I believe the statement you just gave is the clearest, most direct, bluntest statement I have heard from any administration witness about the importance of Congress doing its job in a way that Mr. Smith and I both talked about in our opening statements. And you were very clear about CRs [continuing resolutions] and the damage they do to the military.

Later today, the House is going to vote on an appropriation bill for the Department of Defense for the rest of the fiscal year. It is consistent with about \$700 billion of total spending for our national defense account. And my question to you is, is that bill, that level of funding consistent with the National Defense Strategy that you have talked about today? And if for whatever reason that does not—that level of resources does not happen, what does that do to the strategy?

Secretary MATTIS. Chairman, that is sufficient. I would tell you, sir, that with it we can restore the competitive advantage—or begin down the trail of restoring the competitive advantage that has been eroded.

I would tell you additionally, sir, that without it, we will be put into the position where the strategy would have to be changed and we would have to accept greater risk, especially in terms of deterring adversaries who might think that we are weaker because they can register where our readiness is being eroded.

The CHAIRMAN. Okay. Let me just ask one other thing in the interest of time so we can get to other members. When you assumed this office, there was speculation perhaps that you were a skeptic on some aspects of our nuclear triad, our nuclear deterrence.

You spent a year looking through it. The Nuclear Posture Review is the result of the study that you and the Department have put into it. But can you just kind of tell us, what—as you have looked at our nuclear deterrence, how has your thinking evolved? I mean, I do not know if you want to say if you were a skeptic or not at the beginning, but it looks like there was a change or at least some evolution. Why?

Secretary MATTIS. I think that is a fair statement, Chairman. I was confident that when I received the waiver from the House and the Senate to go into this job that you expected me to exercise my judgment. I came in wanting to challenge just about everything. I wanted it to be proven to me that we needed to spend every cent, that every time we had a troop in harm's way it was for the well-being of the American people.

In this case, I looked at the triad piece by piece and the elements of each leg of the triad. I was especially attentive to the intercontinental ballistic missile force. After talking with a lot of people, visiting the missile fields, and doing a lot of study, I believe it is a stabilizing element that would be a strong deterrent to anyone who decided they wanted to employ nuclear weapons against us.

There was another weapons system that I was concerned could be destabilizing, an air-launched cruise missile or a cruise missile. You can see over here on the chart that, clearly, Russia does not consider that destabilizing. Look at the number that they have developed and fielded. And as I put together how do we keep us in a position where this is a nuclear deterrent, it has got to have those capabilities to be most persuasive.

[The chart referred to can be found in the Appendix on page 47.]

Secretary MATTIS. Deterrence is in the eye of the adversary. And that was the journey I embarked on. And it was a little rough on the staff and those who came in promoting it at first, but I think they were compelling by the time we were done.

The CHAIRMAN. Thank you.

Mr. Smith.

Mr. SMITH. Thank you, Mr. Chairman.

I think you are quite correct that we have entered an era where great power rivalry is back on the table. Obviously, China and Russia have become more active in a variety of different ways.

What disturbs me about the direction of this conversation is, I do not believe that great power rivalry equals endless arms race, that basically whenever you have a great power rivalry all that is involved is military power. You have to build as much as you can build, they have to build as much as they build, and it goes up and up and up and up and up.

Would you agree, Mr. Secretary, that there are other important elements of dealing with great power rivalry, starting, for instance, with the State Department, with diplomacy, with the idea that dialogue between our adversaries—between us and our adversaries is important?

Secretary MATTIS. Congressman Smith, I would agree 100 percent. And I would point out we are not developing, for example, nuclear torpedoes. Our Nation is quite capable of developing new weapons, as you know. And unlike Russia, for example, we have chosen not to do that to give opportunity for our diplomats to do what you are recommending.

Mr. SMITH. My question is, deterrence is also your diplomatic stance. Deterrence is dialogue. And this is what concerns me is, yes, we have to be able to deter Russia and China from moving forward. But part of the way you deter them, particularly in the nuclear arena, is to have a dialogue, to, you know, do what, you know, Ronald Reagan did with Gorbachev and with others, you know, and not just arms reduction, but at least have an open discussion so that you do not miscalculate.

I mean, a lot of what we are building into here is we are assuming that the Russians—gosh, if we do not have low-yield nuclear weapons, then the Russians will think that they can get away with a low-yield nuclear strike. Part of the way that you make sure that they do not think that is you let them know. You have a dialogue.

And I am very concerned right now that we do not have much in the way of a dialogue with Russia or China. We did get something in the DOD bill that we passed this year that would mandate that happening, but we mandate a lot of things that the executive branch does not do. So we need to do that.

But in the larger point, essentially what we are presented with and what the chairman has presented us with is we have to cut taxes massively, of course. So we have done that. And then we have to fund defense.

So when you go back through those numbers that I mentioned on the \$21 trillion debt and \$700 billion deficit that is growing, now we are going to have a massive increase in defense, we had the massive tax cut, you are going to gut everything else. And let us forget for the moment our infrastructure, education, things that are, I think, also important to actually having a just and prosperous society. Defense is important, without question. But if you gut everything else, you create problems.

And let us just focus on security. If we pass this budget that the Republicans want to put before us today, the State Department will continue to be destroyed. As we all know, career diplomats are leaving, there have been massive cuts in their budget, and now we are proposing no budget for the State Department. But we will give them a CR, but we are not going to pay any attention to that whatsoever.

And it becomes a self-fulfilling prophesy, okay. How do we know we have to build massive weapons to deter Russia and China? Well, we are not talking to them, so we have to presume the worst. We are going to give up on diplomacy and simply focus on having as many weapons as is humanly possible to make sure that they are deterred.

Dialogue is incredibly important to deterrence. And not just dialogue with Russia and China. We need allies. Look, if we are in a great power rivalry in this world with both Russia and China, given our massive debt and China's economic might, that is going to be a tough hill to climb.

I mean, we can build the military—\$1 trillion military, and it is going to be hard to match all of that. We need allies. We need friends. And there are a lot of possibilities: India, Vietnam, South Korea, Japan. We still do not even have an Ambassador to South Korea, but we are degrading diplomacy at an incredibly rapid level. We are also degrading development, which I think is an important part of it.

This is part of how—we talk about, you know, all that stuff in the chart over there that China is doing. One of the biggest things China is doing is they are spending a ton of money all across the world to try to curry favor with countries and also build their own economic might.

Now, they are doing it in an incredibly crass and terrible way, because they do not care what the government does. They are not going to pull money out of a country because of the human rights violation. They do not care. They are doing it. We are pulling back again. This budget that is being proposed guts development.

And now let us just talk about the Department of Homeland Security, passingly important, I would hope, for our national security. It is part of the nondefense discretionary budget. It too will be gutted by this approach. We will just leave it in the wind in the CR because defense takes priority. We do nothing else.

The Justice Department has played an enormous role in stopping terrorist attacks and also, you know, bringing to justice those who have committed them. It too gets gutted by this budget.

So I always bristle a little bit when I hear the, you know, how can we hold defense hostage to domestic political priorities, as if those domestic political priorities were some kind of luxury that, you know, we just engage in for fun and enjoyment and are not really important.

All of those things are important. The State Department is really important. In fact, I do not think it was you, but I think it was your predecessor or someone who said—I think it was you—said, if you are going to cut the State Department, you better give me five more divisions, okay, because that is what I am going to need to defend this country. It was either you or General Dunford, I apologize.

So to sit here and say, you know, we are going to stand up, spend all this money on defense because it would just be wrong to prioritize other things is patently absurd and insulting. Defense is incredibly important. It is not the only thing that is important in keeping the peace.

This is more a speech than a question, but I think it is important. You have got to agree, there are other things that are important than keeping the peace. And if we do what is being proposed today, we say to those other things, eh, they do not matter. Department of Homeland Security does not matter, Department of Justice does not matter, State Department does not matter, none of that

matters. Does that not make your job vastly more difficult? That was a question.

Secretary MATTIS. Congressman Smith, I take no issue with the fact that we need to have regular order across all government expenditures. Unfortunately, right now, what we are doing is we are creating security vulnerabilities that can no longer be denied.

Again, one look at the chart and you can see where we are at. We cannot do new starts, we cannot get into cyber protection, the very thing you hold dear, because we do not have the ability to do so under continuing resolutions, 9 out of the last 10 years.

I do not think there is anything contradictory in the way you and I look at this right now. Secretary Tillerson and I have a very close working relationship. Our military operations are wrapped firmly inside our foreign policy. And the President has directed Secretary Tillerson and I to find ways to engage on nonproliferation and arms control.

Right now, we have constant communication with the Russians on what I would call operational matters, counterterrorism, for example, North Korea. But some of these are on pretty, pretty big issues. But I agree that we need more communication with Russia, with China along the level of I would almost call it philosophical engagement as well as operational matters.

And I do not think there is anything at all ill-advised about making certain that protecting the country is put foremost so the country can do all the other things that you were referring to.

Mr. SMITH. I guess, I—foremost is okay. Only, exclusively, while ignoring everything else, not okay. And that is what we are about to do this afternoon.

So the only contradictory thing is to completely ignore the rest of the budget, massively cut taxes and fund defense, and act like you provided for security for the country.

But other people have got to get in. I made my point. I appreciate you answering the question.

I yield back.

The CHAIRMAN. Just for the record, I hope we get a complete budget agreement and we do it this week for all aspects of the government. We can do that and we should.

Mr. Jones.

Mr. JONES. Thank you, Mr. Chairman.

I want to talk about the graveyard of empires. I think that is what they say about Afghanistan and the history of Afghanistan.

Mr. Secretary, a few headlines from the last 2 weeks: "Kabul attacks cloud U.S. Afghan strategy."

"Why are we still shedding our soldiers' blood for pedophiles?" Subtitle: "The full extent of child sexual assault committed by Afghan Security Forces may never be known."

Another heading: "The Taliban is gaining strength and territory in Afghanistan."

Another headline: "Taliban threatens 70 percent of Afghanistan."

Last headline: "Pentagon blocks release of key data on Afghan war." "The Pentagon has restricted the release of critical information on the progress being made in the war in Afghanistan, a move that will limit transparency."

In your prepared remarks you very kindly said, we need to build the trust of the American people. How can we build the trust of the American people after 16 years, over 2,300 Americans killed, over 20,000 wounded, and we spent \$1 trillion?

I do not have to add to Mr. Smith's comments, but this country is headed for bankruptcy. Mr. Trump campaigned—I have 30 of his comments and tweets. He was opposed to being in Afghanistan. He wanted to pull out. He was very critical of those who wanted to stay.

We are now increasing the number of our troops in Afghanistan, and after 16 years, the American people have a right to know of the successes. Some of that, I am sure, is classified information, which I can understand. But I also know that we are not getting the kind of information that we need to get to know what successes we are having. And after 16 years, I do not think we are having any successes.

I would love to have a classified hearing. Maybe that will happen in a couple hours, and you would be able to tell us of some benchmarks that we have made after 16 years.

A friend of yours is a friend of mine. The former Commandant of the Marine Corps, Chuck Krulak. He has been my unofficial adviser on Afghanistan for 5 years. Previous Secretary of Defense have gotten questions that he asked me to ask during hearings like this one. Not today did I get that from him.

But 3 or 4 months ago when you talked about increasing the number of troops in Afghanistan, he sent me a five-paragraph email. I am certainly only going to read one sentence and then I want to ask you the question. "No one has ever conquered Afghanistan, and many have tried. We will join the list of nations that have tried and failed."

Mr. Secretary, how can we, with this budget situation we have got and an economic collapse in this country, how can we continue to go on a policy after 16 years when the Secretary of Defense that follows you and the Congressman that follows me or Congresswoman, if we are still talking about Afghanistan in the future and nothing is changing, I think there has got to be a time that you would say to President Trump we have done all we can do. Blood and treasure is lost, and we have nothing to show that we have gained, except we still have trouble with the leaders of Afghanistan having sex with little boys. Give me a quick response if you can.

Secretary MATTIS. Congressman, if we were engaged in conquering Afghanistan, I would agree 100 percent with what you just stated, if that was our sense of empire. In fact, what we are doing to earn the trust of the American people is to ensure another 9/11 hatched out of there does not happen during our watch.

Further, the strategy we put together—and President Trump challenged every assumption. It took months to put it together to answer every question he had, and the gravity of protecting the American people caused him to change his mind based on what the intelligence services told him was the vulnerability we would have if we pulled out of there.

That strategy did permit a more regional approach. It has been embraced by nations as diverse as those in NATO and India. We have now—we had declined to 39 nations fighting in the NATO

campaign from 50 years ago. It has gone now to 41. It has started growing more allies. They are there because they believe in the strategy, which means the Afghan boys continue to carry the load for the fighting but now with advisers that bring the NATO air support and fire support to bear to help them.

The Taliban and Haqqani, they have not made their pitch to the Afghan people in a positive way by murdering innocent people. They are not incurring the support of the Afghan people, whereas NATO does have that support.

It has been a long, hard slog, and I recognize that. But I would also tell you that any attempt to keep information from the American people, it was a NATO decision at that point. It was a mistake, I might add, and that information is now available. A number of those headlines, obviously, are selected by their editors in order to make the story line they have.

We believe that the regionalized strategy will draw even more allies, and it puts the enemy on the path towards accepting reconciliation. We are not out to conquer it.

The CHAIRMAN. The time of the gentleman is more than expired.

I would just mention to members, you can ask whatever you want to, but if you ask a question for 4 minutes and leave the Secretary less than a minute to offer, I am not going to cut him off, but we are not going to get very far if that is the approach.

Mrs. Davis.

Mrs. DAVIS. Thank you, Mr. Chairman.

And thank you to both of you for your service and for being here this morning.

I wanted to associate myself with the ranking member's comments regarding the whole-of-government approach that is so critical. I know that, Secretary Mattis, you mentioned too that we must negotiate from a position of strength so that our military capability should be clear and send that message. But at the same time, we know how long it takes to develop high-ranking officers who can provide our country with the best of advice. And we must have that same timeline for the State Department and for those individuals that negotiate, whether it is in commerce or whatever, whatever realm that it is.

So I wanted to just go to the issue of lowering the threshold in terms of nuclear capability. And there is a question whether or not the Nuclear Posture Review is clear on what it considers to be lowering the threshold versus some of the comments that I think General Selva made that it is possible to modernize nuclear capability and at the same time lower that threshold as it is perceived by our adversaries.

Can you speak to that more? Because I think we are all concerned about the Russian doctrine of escalating to deescalate. Where are we, and how can we make that clear, I think, to the American people?

Secretary MATTIS. I think part of it can be addressed through the continuity of our nuclear deterrent—and, again, I never say “nuclear”—nuclear deterrent strategy and how we manage it and how we talk about it.

And if you look at the 2010 Nuclear Posture Review in which it said we would only use nuclear weapons in extreme circumstances,

I would refer to 2018 where we say in the most extreme circumstances would we use those weapons. You see the continuity between two different administrations, two different political parties for the President.

And in regards to the lower-yield weapon, it is to make certain that no one thinks that they could use a low-yield weapon and put us in a position where we could only respond with a high-yield weapon with the supposition that maybe we would not.

And we can say what we know we would, but what matters in deterrence is what does the adversary think. And in this regard, deterrence is dynamic, and we must recognize that today's deterrent must keep pace with the thinking of today's adversaries or competitors.

Mrs. DAVIS. Could you respond, sir, though, to the belief that a nuclear weapon is a nuclear weapon, that no matter what that size may be, it would still signal that we are using a nuclear weapon and perhaps even changing the rules of the game?

Secretary MATTIS. Yes, I would agree. I do not think there is any such thing as a tactical nuclear weapon. Any nuclear weapon used any time is a strategic game changer. That said, we do not want someone else to miscalculate and think because they are going to use a low-yield weapon, that somehow we would confront what Dr. Kissinger calls surrender or suicide, that we do not want even an inch of daylight to appear in how we look at the nuclear deterrent. It is a nuclear deterrent and must be considered credible.

Mrs. DAVIS. Thank you.

General Selva as well, I mean, looking at that nuclear modernization, the cost, \$700 billion, \$1.5 trillion, is that something that, given the whole scope of what is needed in terms of our defense budget, that makes sense today?

General SELVA. My response is yes, it does make sense. It makes sense in the context that we are talking across about a 40-year timespan, the cost of about \$700 million to modernize the three legs of the triad, to make available to future Secretaries of Defense and Commanders in Chief a credible, secure, reliable nuclear triad that allows those individuals 20 or 30 years into the future to be able to tailor strategic responses as well as support the possibility of negotiating away entire types and classes of weapons.

That process will have to continue over a long timespan. The arsenal and weapons that we have today are ready, secure, and credible, but they must be modernized over the span of time to keep those options available to our Commanders in Chief.

Mrs. DAVIS. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Mr. Wilson.

Mr. WILSON. And, Secretary Mattis, General Selva, thank you so much for your service and being here today. I especially appreciate what you are doing, as a veteran myself, but particularly as a grateful dad. I have had four sons and a nephew serve overseas in Iraq, Afghanistan, Egypt, Army, Navy, Air Force. And so I am just very, very grateful for your service and your leadership. It is so reassuring as a military parent.

Secretary Mattis, your Nuclear Posture Review, NPR, recommends that the United States develop two supplemental nuclear capabilities: First, a low-yield submarine-launched ballistic missile, SLBM; and second, a sea-launched cruise missile. Why are these needed for deterrence and assurance?

And following on that, some are arguing that they lower the threshold for the United States to use nuclear weapons. Do you believe that the addition of these capabilities to the U.S. nuclear arsenal is an increase or decrease to the likelihood of a nuclear war? And another angle, why should we need a low-yield SLBM when we already have a low-yield nuclear gravity bomb? Are these capabilities redundant?

Secretary MATTIS. Congressman, I do not believe it lowers the threshold at all. What it does, it makes very clear that we have a deterrent if the Russians choose to carry out what some of their doctrine people have promoted, their political leaders have promoted, which would be to employ a low-yield nuclear weapon in a conventional fight in order to escalate to deescalate; in other words, to escalate to victory and then deescalate. We want to make certain they recognize that we can respond in kind. We do not have to go with the high-yield weapon. Thus, the deterrent effort stays primary. It is not to in any way lower the threshold to use nuclear weapons.

On the sea-launched cruise missile, as you know, we have an ongoing issue with Russia's violation of the INF [Intermediate-Range Nuclear Forces Treaty]. I want to make certain that our negotiators have something to negotiate with, that we want Russia back into compliance. We do not want to forego the INF, but at the same time we have options if Russia continues to go down this path.

So the idea is, once again, to keep our negotiators negotiating from a position of strength. I do not believe you can go into a negotiation and try to get something for nothing. I do not think the Russians would be willing to give up something to gain nothing from us in terms of reduction.

Mr. WILSON. Well, if there is any negotiation, I certainly have faith in your capabilities, and we look forward to working with you.

Another issue that is so important and, Mr. Secretary, that needs to be restated over and over, you referenced it in your opening statement, but is there any stronger indication of Congress' resolve, any action with better deterrent value to peer competitors than repealing the Budget Control Act sequestration and supporting our military with adequate and reliable funding?

Secretary MATTIS. No, there is not, Congressman. Congress speaks for the American people I would probably say in the most stabilizing and sobering message that this democracy will stand up for itself.

Mr. WILSON. And an issue that Chairman Thornberry has been leading on is to address our readiness issue. As we are here just 2 days from another government shutdown, can you tell, in your view, if Congress does not do its part to turn this crisis around, can we expect to see further impacts to the military? Should we anticipate more accidents, tragic accidents, as we saw in the Pacific this year with the *Fitzgerald* and *McCain*?

Secretary MATTIS. Congressman, we are doing everything possible to avoid any such repeats of those accidents. However, there are a number of areas where when time is lost, if you have pilots who are not taking in their flying time now, 5 years from now when they are majors or they are lieutenant colonels, they will not have the level of expertise we would expect, because they did not get the opportunity that they lost during continuing resolutions or during budget shutdowns, governmental shutdowns. It impacts us. And so it is not like we maintain even the status quo if we go into one of these kind of situations yet again. We actually lose ground—and I can go on for a number of examples—in all the forces.

Mr. WILSON. I thank both of you for your service.

The CHAIRMAN. Mr. Langevin.

Mr. LANGEVIN. Thank you, Mr. Chairman.

Mr. Secretary and General Selva, thank you for your service and for your testimony here today. I also want to associate myself with the comments of the ranking member when it comes to taking a whole-of-government approach to funding our national security priorities as well. But I want to turn to another aspect of a security challenge that faces our country today.

Mr. Secretary, it is an accepted fact that our planet's climate is changing. You acknowledged this yourself to our committee, and you have shown leadership in this regard submitting at your confirmation hearing that you will, and I quote, "ensure that the Department continues to be prepared to conduct operations today and in the future, and that we are prepared to address the effects of a changing climate on our threat assessments, resources, and readiness. And I want to commend you for those statements.

However, both the President's National Security Strategy and the Department's National Defense Strategy fail to note climate change as a threat. I am perplexed by that and certainly ask why was that omitted? But as these changes occur, how will you ensure the Department is prepared to respond? What steps will the Department take to mitigate the challenges of a changing land and seascape to ensure America's mission resiliency and assurance?

Secretary MATTIS. Congressman, on a military level, every base we have has what we call extreme weather plans. We acknowledge any kind of environmental impacts from the weather, whether it be drainage systems or whatever we need in order to keep that base operating, whether it be airfields, seaports, marshalling bases for deployment, that sort of thing. This is a normal part of what the military does and under any strategy it is part and parcel.

Mr. LANGEVIN. Well, I still find it perplexing that it was left out of the National Defense Strategy.

But, General Selva, let me turn to part of your testimony. I might take issue just with one part of it where you say nuclear weapons pose the only existential military threat to our Nation. I would add cyber weapons as also posing an existential and asymmetric threat to our Nation as well.

In your assessment, both to you and to the Secretary, how well-resourced and trained are our forces to deal with the threats of cybersecurity?

General SELVA. Congressman, we have established U.S. Cyber Command [CYBERCOM] as the bulwark for the military networks

that we operate on in order to be able to defend the Nation. CYBERCOM, in consultation and collaboration with the National Security Administration, also provides for some of the cybersecurity for critical infrastructure and industries around the country.

My point in saying that nuclear weapons represent the only military existential threat is because they would be used uniquely for military purposes to threaten us and cause us to capitulate or surrender in the face of a military threat. There is no question that cyber is an asymmetric capability and this Nation has vulnerabilities both in critical infrastructure as well as civilian infrastructure, and we will continue to do the work of normalizing our ability to defend those and provide the kinds of advice we can through the National Security Agency as well as Department of Justice and Department of Homeland Security to defend those networks.

Mr. LANGEVIN. Do you feel that our training is meeting expectations as to where we need to be at this time to deal with our cyber challenges?

General SELVA. Sir, collaboration between both the military capabilities to defend our networks and Department of Homeland Security, Justice, and NSA [National Security Agency] to defend national networks, the training's as good as we can possibly make it and we are reacting to the threats that we can see.

Mr. LANGEVIN. Mr. Secretary, the National Defense Strategy states that inter-state strategic competition rather than terrorism is now the primary national security concern. It is also our eroding—it also notes our eroding competitive military advantage should diplomacy and deterrence fail. While I agree that we must increase our military edge in the event of conflict, today, our competitors are launching political, economic, information, and cyber operations targeting us.

Where do you believe we are with respect to our competitive advantage in these types of activities that do not rise to the level of armed conflict? To what extent do you feel we should be prepared to increase our proficiency in these areas?

Secretary MATTIS. It is a great question, sir, because this was what I was alluding to when I mentioned that we have the potential to enlarge the competitive space, and it is right into the areas you are talking about. We have to remember we are a revolutionary act, this country, the kind of democracy that we stand for.

And you can practice all the predatory economics you want. You can send your military into Syria to prop up a despot if you wish to. But the fact is we have areas of diplomacy, of education, that go far beyond what other nations can reach back and find strength in, and we can use that to build modern partnerships. In other words, not abandon our traditional partnerships, NATO for example, but certainly expand to a broader array of partners today that do not want to be basically made tribute states to someone else's economic or political system.

Mr. LANGEVIN. Thank you both. And I yield back.

The CHAIRMAN. Mr. Turner.

Mr. TURNER. Thank you, Mr. Chairman. Thank you both for being here.

Mr. Secretary, thank you for your strong statements here today. I have got two thank yous and a question, then I am going to yield

the remainder of my time to Mr. Gallagher. The chairman said we are in tough time constraints and so not everyone is going to be able to answer a question.

The two thank yous are, one, thank you for your strong statements on the budget. I voted against the Budget Control Act because I believed that sequestration would be damaging to our military and that it would happen. And certainly, everyone on this committee has fought ever since it has been implemented to try to lift that burden on our military. Your strong words are important to let people know the real effects of that.

It is very sad that in your comments you have a whole section on impact of congressional inaction. But I must say that the House has not really been inactive. We passed a budget, the National Defense Authorization Act. We passed the appropriation bills three times. We are going to do it again.

We really are dealing with a handful of those in the Senate who are causing inaction. And I certainly call on Democratic leadership in the Senate to dislodge the defense funding for the military because of the various reasons that you are giving us of the damage that is occurring by connecting defense funding to other items.

Secondly, I want to thank you for your strong words in the Nuclear Posture Review. We know we are coming off the 2010 Obama Nuclear Posture Review that actually assigned DOD the responsibility of reducing the role of U.S. nuclear weapons in U.S. National Security Strategy, while at the same time giving them the responsibility to modernize. It is very hard to reduce at the same time you are to modernize.

Your chart is important because it certainly over here on the right shows that those who say that we need to reduce our nuclear weapons or slow our modernization because others will follow is folly. Our reducing our nuclear weapons does not result in anyone else doing so. It certainly is not based on reality or history.

One correction, on the bottom right on your chart, you say air-launched and the F-35. As you know, we are not—that is on paper currently. That is not an accomplished capability. I look forward to working with you on that.

Then to my question, you indicated that the INF Treaty was continuing to be violated by Russia and we are continuing a dialogue. We also know that, you know, they violated the territorial integrity of a treaty with the Ukraine. They have violated the Open Skies Treaty, violated the Treaty on Conventional Forces in Europe. How do we approach their violation in the INF in dialogue when they show no indication that treaties even matter to them?

Secretary MATTIS. Well, sir, I have had extensive discussions with our NATO allies and the Secretary General at NATO on this issue. I have made clear that our approach is that we do not want to withdraw from INF, but we are going to have to see effort by Russia to get back in line with it. And State Department is engaged on this with the Russians as we speak right now. And also, we are going to stay inside the INF-compliant requirements, but we are going to do research and development of an alternative weapon that should put Russia in a position to see the value to returning to be an INF-compliant.

Mr. TURNER. I yield to Mr. Gallagher.

Mr. GALLAGHER. Thank you, Chairman Thornberry.

Thank you, Mr. Secretary, for your tough words today and for your hard work on the National Defense Strategy, particularly its focus on great power competition.

As we try to operationalize that new focus, I am particularly interested in some of the second-order consequences where we might need to shift our thinking in order to stay ahead of our competitors. And you recently endorsed the Foreign Investment Risk Review Modernization Act, and you have talked about China's pursuit of veto authority over other nations' economic decisions. Why, in your view, is this legislation and a hard look at CFIUS [Committee on Foreign Investment in the United States] needed?

Secretary MATTIS. Sir, we have made very keen observations of the amount of intellectual property that has been basically under industrial espionage, has been rifled through in our country and exfiltrated. And it is time that we also look at what are the most critical national security industries that may not be covered under the current act that we need to broaden and deepen the protections for this advantage that we have available, whether it be Silicon Valley, Seattle, or elsewhere in the country.

Mr. GALLAGHER. And then can I quickly ask, General Selva, what concerns do you have, from a military advice perspective, on our ability to protect DOD's supply chain, critical technology, and our industrial base, given current tools, practices, and authorities?

General SELVA. Thank you, Congressman. The supply chain and the industrial base speak directly to the timeliness of CFIUS actions and our ability to control who invests in those key capabilities that allow us to supply, train, and deploy our military forces. So the notion that we would not pay attention to who is investing in the companies that actually allow us to move and mobilize our force is folly. So the refinement and renewal of the powers within the CFIUS capabilities to determine who is doing that investing and for what reason put us in a position of being able to understand the potential vulnerabilities of those investments.

Mr. GALLAGHER. Thank you both. My time has expired.

The CHAIRMAN. Mr. Larsen.

Mr. LARSEN. Thank you, Mr. Chairman.

Mr. Secretary, I could not help but notice in the response to a question earlier, you said that—I think I heard you say that we need SLCM [submarine-launched cruise missile] and the SLBM [submarine-launched ballistic missile] in order to have democracy stand up for itself. I think that is what your response was to a question.

You are not suggesting that if any one of us do not support the development of SLCM or SLBM that we are not standing up for our democracy?

Secretary MATTIS. That would never be the way I characterize someone's vote, sir.

Mr. LARSEN. Thank you.

So you also argued that the Nuclear Posture Review provides, I think it was SLCM provides a bargaining chip in dealing with INF Treaty violations of the Russians. Did I get that correct?

Secretary MATTIS. That is correct, Congressman.

Mr. LARSEN. Is it a logical extension, then, that if we saw a change in Russian behavior, the administration would stop the development of either one or both?

Secretary MATTIS. I do not want to say in advance of a negotiation and undercut our negotiator's position what we would or would not do. The point I would make is that deterrence is dynamic. We have to deal with it as it stands today, as we see it on the chart. And in that regard, I believe that we have to give our negotiators something with which to negotiate.

Mr. LARSEN. Do you have any indication there would be a change in Russian behavior with the development of either one of these?

Secretary MATTIS. I can only tell you that we go into this with capabilities to make certain the Russians understand that we have a capability and a deterring capability, and it is based on not just the two nations, but the broader deterrent portfolio as well.

Mr. LARSEN. Sure. Does the United States currently have the ability to deliver a nonstrategic nuclear weapon, a nuclear response without this investment? Do they have the ability? I am sorry, do they have the ability to deliver that without this investment?

Secretary MATTIS. Are you referring to a sea-launched cruise missile?

Mr. LARSEN. No, I am talking about the delivery of a nonstrategic nuclear response. It would not have to be a sea-launched.

Secretary MATTIS. I would be cautious about saying any nuclear weapon is nonstrategic, sir. If you mean a low-yield, yes, we do.

Mr. LARSEN. And what is the difference between that capability and, say, a sea-launched?

Secretary MATTIS. The gravity bomb that is the low-yield means the bomber would have to penetrate, but today, air defense systems are altogether different than 10 or 20 years ago.

Mr. LARSEN. And is there any investment going on in counter-air defense to deal with that or is this the only—is the development of a new capability the only solution?

Secretary MATTIS. No, sir. We are certainly working on air defense penetration capability; but, again, we have to deal with where we are at today. We are working on the issue.

Mr. LARSEN. Yes. Kind of the where we are at question gets to something I am not going to bore you with the details, because we will probably get to it in subcommittee hearings, but the CBO [Congressional Budget Office] estimate of now \$1.2 trillion over 30 years, which I think the Department would say—for the nuclear modernization, which the Department would say is only or merely 6.4 percent of the budget when it was much higher in the past. I do not know if that means the rest of the defense budget is out of control and this one is under control, or the fact that we do not really have an accounting of what that \$1.2 trillion is and that we are now looking at an NPR that presumes additional development of capabilities, which I presume would be on top of this current CBO estimate.

You can maybe address that briefly, but we are going to have plenty of time over the next couple of months to explore that, the money question, which is a big concern of all of ours.

Can you tell us about the assurance? Since nuclear deterrence is partly an assurance of allies, can you tell us about the assurance

a new low-yield nuclear weapon gives to our allies or any response from specifically our NATO allies at this point?

Secretary MATTIS. Sir, we engaged in extensive consultation with our NATO allies. I was on the phone this morning with one of my counterparts, and she expressed the deep appreciation of her country for the amount of collaboration that went into the Nuclear Posture Review. And so, right now, I can tell you the deterrence posture we have and we have outlined in the posture review has gained a great deal of support from our allies.

Mr. LARSEN. Well, I get thanks for collaboration all the time and people then work against me. So I am just wondering has NATO then yet taken a position? And I will follow up with you later on that. Thanks a lot.

The CHAIRMAN. Mr. Rogers.

Mr. ROGERS. Thank you, Mr. Chairman.

And thank you all for your attendance and your service to the country.

The last Nuclear Posture Review published 8 years ago said, quote: "Russia is not an enemy and is increasingly a partner," close quote. At that time, there were many of us on this committee that did not believe that statement, and we certainly do not today.

Russia continues to brazenly violate the INF Treaty, continues to conduct dangerous nuclear exercises directed against the United States, NATO allies, and regional partners, and continues a military occupation of sovereign Ukrainian territory. Finally, China clearly demands recognition as a regional gatekeeper and a global influence.

With that backdrop, Secretary Mattis, how would you characterize the changes we have seen in the global security environment since the 2010 NPR, and why do these changes matter, and how is your NPR recommending we adapt our nuclear posture and policies?

Secretary MATTIS. Yes, sir. I believe what we have seen is that Russia and China, from, as you point out, Ukraine to mucking around in our elections in the case of the Democratic elections in the case of Russia, to China's militarization of features in the South China Sea, we have seen them choose to become strategic competitors with us vice what at one time we had hoped would be some level of partnership.

Mr. ROGERS. Do you believe that the 6 or 7 percent of our defense budget that we are devoting to the nuclear enterprise is an adequate level of spending to fund our Nation's number one priority defense mission?

Secretary MATTIS. I do believe it is. And I would point out that it is around 3.5 percent for many years, climbing to 6.5, 6.7 at its top percentage about 2029, we believe. And at that point, it would go into a more measured maintenance of what we have built: the *Columbia* class, the B-21, this sort of thing, Congressman.

Mr. ROGERS. Okay. Thank you.

With that, I yield back.

The CHAIRMAN. Ms. Bordallo.

Ms. BORDALLO. Thank you, Mr. Chairman.

Mr. Secretary and General Selva, thank you for your testimony.

Mr. Secretary, in the National Defense Strategy, you noted that we are a resilient joint force in regards to our forward-deployed forces. I am concerned regarding the U.S. Navy's ability to remain resilient during conflict with a peer adversary, specifically with depot-level ship repair capability in the Pacific.

Now, in the Fleet Comprehensive Review, the Navy identified capacity issues at the ship repair facility in Yokosuka, Japan. The fiscal year 2018 NDAA, section 1047, requires the Secretary of the Navy to submit a report on the ship depot maintenance capability in the Western Pacific. It further requires the Secretary of Defense to certify to congressional defense committees whether or not the current ship depot maintenance capability and capacity, including dry docks, in the Western Pacific are sufficient to meet both peacetime and contingency requirements.

So my question is, where is the Department in terms of meeting these requirements, and how are you going about determining if there is sufficient capability and capacity?

Secretary MATTIS. Congresswoman, where we are at right now is we are examining the sufficiency of it in terms of just raw capacity, the anticipated need if we go into conflict, and the distribution over a number of locations, for obvious reasons. So right now, we are still in the assessment. We obviously know what we have right now, but whether it is sufficient for the future is where we are concentrating the study. And I will make certain that the Secretary of the Navy follows up on this as we get more mature in our output.

Ms. BORDALLO. Thank you. Thank you, Mr. Secretary.

The next question I have is that the people of Guam are proud to host the continued bomber presence and one leg of the nuclear triad with the recent addition of the B-2 and B-52 bombers. Considering the bomber presence and as the westernmost territory of the United States, Guam holds vital strategic bases, and I am happy to see the Department place a THAAD [Terminal High Altitude Area Defense] system to aid in its defense. However, in your strategy, you call for investment on layered missile defense from North Korean threats.

Considering our strategic importance, is Guam adequately defended from theater missile threats, and how do you intend to bolster these defense systems in the future?

Secretary MATTIS. Well, we will continue bolstering them to keep pace with the threat out of North Korea. As you know, besides the THAAD system, ma'am, we also keep the Aegis, the ballistic missile defense U.S. Navy warship in the waters out there, and we can always reinforce that. We also have several of those ships in Japanese waters right now, and they can move back and forth to include coverage of Guam in the mobile way that comes to our Navy. But we are looking at all the systems, to include Aegis Ashore, as we look toward the future protection of our Pacific area.

Ms. BORDALLO. Well, thank you, Mr. Secretary. I think we have talked about this. Just keep Guam in a secure position and keep all the bombers and everything else you have there for a while, anyway. And I thank you again.

And I yield back, Mr. Chairman.

The CHAIRMAN. Votes have come early. We do not have time to get two more members in. So as soon as votes are completed on the floor, we will come back and be in classified session up in 2212.

At this point, the open hearing is adjourned.

[Whereupon, at 11:04 a.m., the committee proceeded in closed session.]

A P P E N D I X

FEBRUARY 6, 2018

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

FEBRUARY 6, 2018

**House Armed Services Committee
Chairman William “Mac” Thornberry
Opening Remarks
Full Committee Hearing on the National Defense Strategy and the
Nuclear Posture Review
February 6, 2018**

The Committee meets today to hear testimony on the Administration’s National Defense Strategy and Nuclear Posture Review, both of which were recently released. We welcome back the Secretary of Defense and the Vice Chairman of the Joint Chiefs of Staff to discuss these important documents.

I cannot count the number of times I have heard Members of this Committee talk about the importance of having a defense strategy to help guide decisions that we and the Executive Branch have to make. Now we have one. It is a component of the broader National Security Strategy released in December, and it has within it the Nuclear Posture Review, the first of its kind since 2010.

A lot has changed since then, and both documents come at a critical time. As the National Security Strategy points out, “America’s military remains the strongest in the world. However, U.S. advantages are shrinking as rival states modernize and build up their conventional and nuclear forces.”

There will undoubtedly be criticism of both documents. Some of it will be based on valid shortcomings; some may spring from more ideological differences. Debates about the particulars are fair and to be expected. But it is also fair, I think, to commend the Administration for its attempt to bring structure and rationality to our wide-ranging national security efforts in what is surely a dangerous and volatile world.

One last point: We must never forget that with any strategy, the heart of our nation’s defense—our most valuable asset—remains the people who serve. It is morally wrong to send brave men and women out on missions under any strategy for which they are not fully trained, equipped and supported with the best that this country can provide. That support should not be conditioned on any other issue. And we can never forget that there is a real, human cost to failing to fully support them. Strategy is important, but nothing is more important for Congress than for us to do our job to support the men and women who protect us, fully and unconditionally.

House Armed Services Committee Ranking Member Adam Smith
Opening Statement
Full Committee Hearing on the National Defense Strategy and the
Nuclear Posture Review
February 6, 2018

Thank you, Mr. Chairman. I would like to welcome Secretary Mattis and General Selva and to thank them for appearing today. Their testimony will be instrumental to our evaluation of the recently released National Defense Strategy and the Nuclear Posture Review.

The National Defense Strategy asserts that the United States continues to face a range of national security challenges and that the international rules-based order is threatened in various ways by Russia, China, North Korea, Iran, and violent extremist organizations, such as ISIS and al Qaeda. Threats posed by Russia are especially concerning. Russia is seeking to weaken liberal democratic institutions and to promote authoritarianism. Russia has meddled in electoral processes, adopted a revanchist posture in Europe, used influence operations with malign intent, and systematically pursued efforts to undermine alliances and partnerships.

The National Defense Strategy correctly recognizes that cooperative efforts with allies and partners are essential to deterring conflict and to maintaining the international rules-based order. We cannot face the threats identified by the National Defense Strategy by ourselves. The highest levels of the Administration must now demonstrate that alliances and partnerships are top priorities through expanded cooperation and support for diplomacy and development, and by ensuring that important State Department and USAID programs are sufficiently resourced.

In introducing the National Defense Strategy, Secretary Mattis acknowledged that “national security is much more than just defense.” We must adopt whole-of-government approaches to strengthening our defenses and meeting future challenges. Just as addressing violent extremism requires more than military force, future challenges will almost certainly continue to require us to address the political, economic, and social conditions that fuel them.

Secretary Mattis further indicated that fiscal certainty will be necessary to implementing the National Defense Strategy and for building a force capable of meeting anticipated challenges. Long-term planning requires a reliably funded, comprehensive, long-term national budget. We cannot continue to rely on wasteful continuing resolutions. Congress should also eliminate sequestration and lift the budgetary caps imposed by the Budget Control Act of 2011 to provide relief to both the defense and non-defense accounts. Investments in diplomatic efforts, foreign assistance programs, and emergency preparedness are just as important to our national security as

defense spending. We also need to invest in infrastructure, research and innovation, energy solutions, education, health care, and many other facets of enduring national strength.

To effect a coherent National Defense Strategy, we will need to make tough budgetary choices. When you combine the Department's call for resources to implement the National Defense Strategy with all of the other government programs that the public wants funded, there simply isn't enough money to go around. We need to review our investments and to take actions that will yield savings and raise revenues, and we need to scrutinize potential tradeoffs in the process. For example, on the defense side, I am very interested to know the opportunity costs associated with the \$1.2 trillion nuclear weapons enterprise plan. I appreciate the National Defense Strategy's goal for producing cost-saving efficiencies within the Department, including providing Congress with options for a Base Realignment and Closure, but I am eager to learn more about the underlying budgetary assumptions supporting the strategy and how they will translate into the pending budget request for fiscal year 2019 and funding budgeted by the Department over the five-year Future Years Defense Program.

We have a duty to manage our country's resources responsibly in fielding an effective military. We must invest wisely when it comes to national security, and we must be realistic in matching strategic objectives with resources. A strategy without the means to support ways to achieve its ends is incomplete, but a strategy that fails to apply the limits of practicability is aspirational.

I appreciate that General Mattis and General Selva are also here today to discuss the Nuclear Posture Review. I am concerned that this review takes the United States in a dangerous direction that will undermine our defense posture. It further exacerbates our national security budgeting difficulties, lowers the threshold for using nuclear weapons and increases the risk of miscalculation. Given the President's erratic tweets about having "a much bigger and more powerful" nuclear button, we need to ensure that we move away from a button-measuring policy that could devolve into a button-pressing policy.

The Nuclear Posture Review undermines our ability to make choices about the military capabilities that we need to enhance readiness. The expectation that Congress will fund the costly plan to upgrade our nuclear weapons enterprise is unrealistic and only delays the hard choices we will have to make. By requesting more new nuclear weapon systems and additional unneeded capacity, the Administration is making the problem worse. Adding new low-yield programs siphons resources away from the capabilities that we need to counter current and future threats, and disregards the hundreds of low-yield and non-strategic weapons, which are already in the U.S. arsenal and which we are already modernizing. This is fiscally irresponsible.

I am also very concerned that the Nuclear Posture Review devalues our nuclear forces and jeopardizes our strategic deterrence capabilities. U.S. nuclear forces are second to none, and they ensure that we have an extremely robust, highly credible nuclear deterrent that is capable of responding to a nuclear attack against the United States or its allies with decisive force. Replacing our strategic capabilities with low-yield warheads on nuclear ballistic submarines, could, if used, jeopardize these submarines and undermine the most reliable and survivable leg of the triad. We cannot put our most valuable nuclear forces at risk.

In addition, the Nuclear Posture Review focuses on low-yield strike options, which could lower the threshold for using nuclear weapons, feed a nuclear arms race, and increase the risk of miscalculation that could precipitate a nuclear war. It is paramount that we do not rebrand nuclear weapons as war-fighting weapons. They are weapons of last-resort, not weapons to be used in lieu of conventional forces or in a way that would needlessly risk escalating to an all-out nuclear exchange.

We must move forward with a robust posture that deters adversarial aggression by pushing back forcefully in effective ways that strengthen security. This approach must be pursued in parallel with meaningful efforts to reduce the risk of nuclear war. I have advocated establishing direct military-to-military dialogues and regular high-level engagements with Russia, China, and North Korea to reduce the risks of miscalculation that could lead to nuclear war, and adopting a U.S. policy against using nuclear weapons first. We should also revisit our launch-on-warning posture as Senator Sam Nunn, Secretary George Shultz and Secretary William Perry have recommended. These measures should be a top priority, and the misguided recommendations of the Nuclear Posture Review only make them more urgent.

Thank you, Mr. Chairman. I look forward to receiving our witnesses' testimony.

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**SECRETARY OF DEFENSE JIM MATTIS
HOUSE ARMED SERVICES COMMITTEE
WRITTEN STATEMENT FOR THE RECORD
TUESDAY, FEBRUARY 6, 2018**

Chairman Thornberry, Ranking Member Smith, distinguished members of the committee; I am here at your invitation to testify on two subjects: the 2018 National Defense Strategy and Nuclear Posture Review. I am joined by Vice Chairman of the Joint Chiefs, General Selva.

Even in the midst of our ongoing counter-terrorism campaigns, my role is to keep the peace for one more year... one more month... one more day... giving Secretary Tillerson and our diplomats time to resolve crises through diplomatic channels. The Department of Defense does this by providing the Commander-in-Chief with military options that ensure our diplomats negotiate from a position of strength.

Up front, I need to note three days from now I will visit our Nation's first Security Force Assistance Brigade in Fort Benning, Georgia as they prepare to deploy to Afghanistan. To advance the security of our nation, these troops are putting themselves in harm's way, in effect signing a blank check payable to the American people with their lives. They do so despite Congress' abrogation of its Constitutional responsibility to provide stable funding. Our military has been operating under debilitating continuing resolutions for more than 1,000 days during the past decade. These men and women hold the line for America while lacking this most fundamental Congressional support, a predictable budget.

Congress mandated this National Defense Strategy—the first one in a decade—then shut down the government the day of its release. Today, we are again operating under a disruptive continuing resolution. It is not lost on me that as I testify before you this morning, we are again on the verge of a government shutdown or, at best, another damaging continuing resolution.

I regret that without sustained, predictable appropriations, my presence here today wastes your time, because no strategy can survive without the funding necessary to resource it. We all know America can afford survival.

2018 NATIONAL DEFENSE STRATEGY

The 2018 National Defense Strategy provides a pathway for America's military to reclaim an era of strategic purpose, alert to the realities of a changing world and attentive to the need to protect our values and the countries that stand with us. America's military protects our way of life and our realm of ideas—not just our geography, and this is the defense strategy that will guide all of our efforts.

Nations as different as China and Russia have chosen to be strategic competitors. They seek to create a world consistent with their authoritarian models and pursue veto power over other nations' economic, diplomatic, and security decisions. Rogue regimes like North Korea and Iran persist in taking outlaw actions that undermine and threaten regional and global stability. Despite our successes to date against ISIS's physical caliphate, violent extremist organizations continue to sow hatred, incite violence and murder innocents. Across the globe, democracies are taking notice.

We recognize great power competition is once again a reality. We will continue to prosecute the campaign against terrorism but in our new defense strategy, great power competition—*not terrorism*—is now the primary focus of U.S. national security.

Our military remains capable, but our competitive edge has eroded in every domain of warfare—air, land, sea, space, and cyber. Under frequent continuing resolutions and sequester's budget caps, our advantages continue to shrink. The combination of rapidly changing technology, the negative impact on military readiness resulting from the longest continuous stretch of combat in our nation's history, and insufficient funding have created an overstretched and under-resourced military.

During last week's State of the Union address, President Trump said "weakness is the surest path to conflict." To those who might suggest that we should accept a year-long continuing resolution, it would mean a return to the disastrous sequestration level of funding for the military.

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In a world awash in change and increasing threats, there is no room for complacency. History makes clear that no country has a pre-ordained right to victory on the battlefield.

Framed within the President Trump's National Security Strategy and aligned with the Department of State, the 2018 National Defense Strategy provides clear strategic direction for America's military. A long-term strategic competition requires the seamless integration of multiple elements of national power—diplomacy, information, economics, finance, intelligence, law enforcement, and military.

The Department's principal priorities are long-term strategic competitions with China and Russia. Given the magnitude of the threats they pose to U.S. security and prosperity today, Congress must commit to both an increased and sustained investment in our capabilities.

Concurrently, the Department will sustain its efforts to deter and counter rogue regimes such as North Korea and Iran, defeat terrorist threats to the United States, and consolidate our gains in Iraq and Afghanistan while moving to a more resource-sustainable approach.

More than any other nation, America can expand the competitive space. We can challenge our competitors where we possess advantages and they lack strength.

To restore our competitive military edge, the defense strategy pursues three primary lines of effort to:

- build a more lethal force,
- strengthen traditional alliances while building new partnerships, and
- reform the Department's business practices for performance and affordability.

Build a More Lethal Force

Everything we do must contribute to the lethality of our military. The paradox of war is that an enemy will attack a perceived weakness, so we cannot adopt a single, preclusive form of warfare. Rather, we must be able to fight across the spectrum of

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combat. This means the size and composition of our force matters. The nation must field sufficient, capable forces to deter conflict. If deterrence fails, we must win. To defend our way of life, our military will embrace change while holding fast to traditional, proven attributes that make us the most formidable force on any battlefield. Those who would threaten America's experiment in democracy must know: if you threaten us, it will be your longest and worst day.

To implement this strategy, we will invest in key capabilities, recognizing we cannot expect success fighting tomorrow's conflicts with yesterday's weapons and equipment. Driven by this strategy, next week you will see in our FY-19 budget investments in the following: space and cyber, nuclear deterrent forces, missile defense, advanced autonomous systems, artificial intelligence, and professional military education to provide our high-quality troops what they need to win. We will prioritize rebuilding readiness while modernizing our existing force.

We are also changing our forces' posture to prioritize readiness for warfighting in major combat, making us strategically predictable for our allies and operationally unpredictable for any adversary.

Increasing lethality requires us to reshape our approach to managing our outstanding workforce talent, reinvigorating our military education and honing civilian expertise. The creativity and talent of the department is our deepest wellspring of strength, and warrants greater investment.

Strengthen Traditional Alliances while Building New Partnerships

Our second line of effort is to strengthen traditional alliances while building new partnerships.

In the past, I fought many times, but I never fought in a solely American formation; it was always alongside foreign troops. As Winston Churchill said, "the only thing harder than fighting with allies is fighting without them." We are stronger when we stand together, and our military will be designed, trained and ready to fight alongside allies.

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History is clear—nations with allies thrive. We inherited this approach to security and prosperity from the Greatest Generation and it has served the United States well for the last 70 years. Working by, with, and through allies who carry their fair share is a source of strength. Since the costly victory in World War II, Americans have carried a disproportionate share of the global defense burden while others recovered.

Today, the growing economic strength of allies and partners has enabled them to step up, as demonstrated by the more than 70 nations and international organizations participating in the Defeat-ISIS campaign, and again in the 40-some nations standing shoulder-to-shoulder in NATO's Resolute Support Mission in Afghanistan. Most NATO allies are also increasing their defense budgets, giving credence to the value of democracies standing together.

To strengthen and work jointly with more allies, our organizations, processes, and procedures must be ally-friendly. The Department will do more than just listen to other nations' ideas—we will be willing to be persuaded by them, recognizing that not all good ideas come from the country with the most aircraft carriers. This line of effort will bolster an extended network capable of decisively meeting the challenges of our time.

Reform the Department's Business Practices for Performance and Affordability

We are reforming the business practices of the Department to provide both solvency and security, thereby gaining full benefit from every dollar spent. Every day we will earn the trust of Congress and the American people. Affordability matters and we must be good stewards of the tax dollars entrusted to us. In this regard, we will deliver our Department's full financial audit this year, because results and accountability count. This first audit in DoD's history will reveal how we can be better stewards.

The Department is transitioning to a culture of performance and affordability that operates at the speed of relevance. We will prioritize speed of delivery, continuous adaptation, and frequent modular upgrades. With your critical support, we will shed outdated management and acquisition processes while adopting American industries' best practices.

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Our management structure and processes are not engraved in stone. They are a means to an end—empowering the warfighter with the knowledge, equipment, and support needed to fight and win. If current structures inhibit our pursuit of lethality, I expect Service Secretaries and Agency Heads to consolidate, eliminate, or restructure to achieve the mission.

The 2018 National Defense Strategy's three primary lines of effort—building a more lethal force, strengthening traditional alliances while building new partnerships, and reforming the Department's business practices for performance and affordability—will restore our comparative military advantage, ensuring we are prepared to fight across the full spectrum of combat.

Force Application and Management

The central problem for the Department is the erosion of military advantage in key strategic regions. As a consequence, the Joint Force needs to be more lethal, adaptive, resilient, and able to fight alongside allies and partners to prevail in any conflict involving our vital interests. This requires a flexible global posture and an agile employment model that combines combat-credible forward forces competing below the level of armed conflict with flexible theater forces and surge forces that are able to deter attacks, blunt adversary attacks, and bring decisive force to bear.

Detering or defeating great-power aggression is a fundamentally different challenge than the regional conflicts that were the basis of our planning constructs for the last 25 years. Fighting two simultaneous wars against rogue states no longer represents the most pressing challenge to American security and prosperity.

The reemergence of great powers, diffusion of technologies, proliferation of weapons of mass destruction, and new concepts of warfare and competition that span the entire spectrum of conflict require different and greater dedication of resources (Figure 1).

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During day-to-day competition, the Joint Force must be ready to simultaneously:

- Defend the homeland;
- Deter nuclear and non-nuclear strategic attack;
- Deter aggression in the Indo-Pacific, Europe, and the Middle East;
- Degrade terrorist and weapons of mass destruction threats; and
- Defend U.S. interests below armed conflict.

During conflicts, a fully mobilized Joint Force must be ready to simultaneously:

- Defend the homeland;
- Deter nuclear and non-nuclear strategic attack;
- Defeat aggression against the United States, its national interests, allies, or key partners by a great-power adversary;
- Deter opportunistic aggression in a second theater; and
- Disrupt imminent terrorist or non-strategic weapons of mass destruction threats to the homeland.

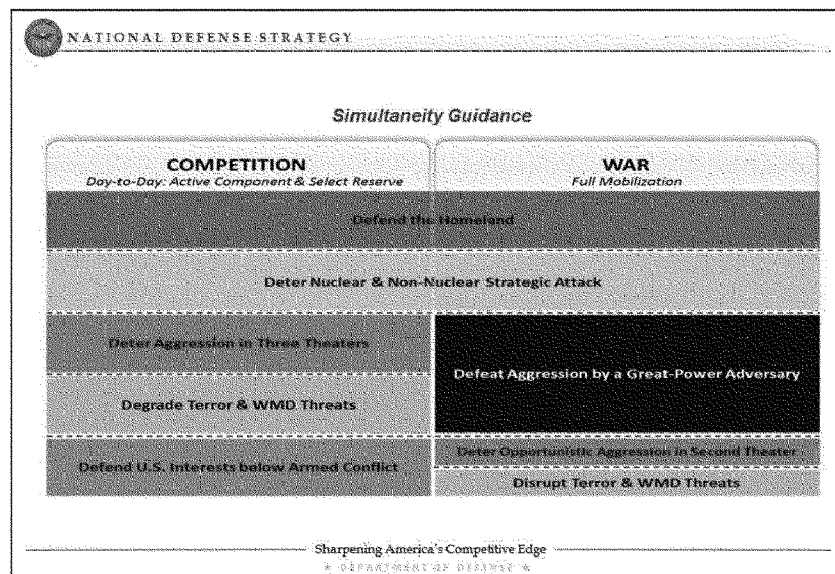


Figure 1. Simultaneity guidance spanning day-to-day competition and full mobilization for war.

NUCLEAR POSTURE REVIEW

One of the key elements of the 2018 National Defense Strategy is to ensure America's military provides a safe, secure, and effective nuclear deterrent. Last January, President Trump directed a nuclear posture review to "ensure the United States' nuclear deterrent is modern, robust, flexible, resilient, ready, and appropriately tailored to deter 21st century threats and reassure allies."

Following the President's direction to initiate the fourth post-Cold War review of the nation's nuclear posture, an interagency team comprised of experts from the Departments of Defense, State, and Energy conducted months of analysis to develop a nuclear policy and posture suited to the contemporary security environment.

I recently received a letter from Senators concerned that the 2018 Nuclear Posture Review would "undermine decades of U.S. leadership on efforts to reduce and eventually eliminate the existential threat posed by nuclear weapons."

To the contrary, the 2018 Nuclear Posture Review reaffirms the mutually reinforcing role of nuclear deterrence in a complex and dynamic security environment while underscoring continued U.S. commitment to non-proliferation, counter-nuclear terrorism, and arms control. Specifically, the review reflects the Department of Defense's strategic priority to maintain a safe and effective nuclear deterrent that will successfully:

- deter nuclear and non-nuclear strategic attacks,
- assure our allies and partners,
- respond effectively should deterrence fail, and
- hedge against future uncertainties and dangers.

I address other concerns raised in the aforementioned letter in Table 1:

<u>Concern</u>	<u>Response</u>
"Developing new, more useable low-yield nuclear weapons are unnecessary and destabilizing."	Low-yield nuclear deterrence weapons are not "more useable", as they are not for warfighting but to bolster deterrence—to convince Russia that the limited use of nuclear weapons in conflict is not a viable strategy.

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<p>"Your reported decision to expand the conditions under which the United States might use its nuclear weapons, including to respond to a broadened range of non-nuclear attacks, is equally disturbing"</p>	<p>The <i>2018 Nuclear Posture Review</i> uses the same language regarding the use of nuclear weapons as the previous 2010 review: "the United States would only consider the employment of nuclear weapons in extreme circumstances in defense of the vital interests of the United States, its allies, and partners."</p> <p>The <i>2010 Nuclear Posture Review</i> contemplated the use of nuclear weapons in response to conventional, chemical, and biological weapons attacks.</p>
<p>The costs to "modernize, sustain, and operate our existing nuclear triad" are "fiscally irresponsible"</p>	<p>Currently, we allocate about 3 percent of our defense budget to maintain nuclear deterrent forces, and modernization will require an additional 3.4 percent for about 10 years. Despite the cost to modernize, it remains a lot less expensive than fighting a war.</p>
<p>"your NPR at present hardly mentions the NPT" (Non-Proliferation Treaty)</p>	<p>The 2018 Nuclear Posture Review states "NPT is the cornerstone of the nuclear non-proliferation regime" and "the U.S. remains committed to nuclear non-proliferation, continues to abide by its obligations under the NPT, and will work to strengthen the NPT regime."</p>
<p>"Finally, your review reportedly pays only superficial attention to the substantial threat posed by nuclear terrorism and nuclear proliferation."</p>	<p>For effective deterrence, the U.S. will hold accountable any state, terrorist group, or other non-state actor that supports or enables terrorists to obtain or employ nuclear devices.</p> <p>Adversaries must understand that a terrorist nuclear attack against the United States or its allies and partners would qualify as an "extreme circumstance" under U.S. nuclear declaratory policy.</p>

Table 1. Response to letter from 16 Senators expressing concern about the 2018 Nuclear Posture Review

The 2018 Nuclear Posture Review comes at a critical moment in our nation's history, for America confronts an international security situation that is more complex and demanding than any since the end of the Cold War. In this environment, it is not possible to delay modernization if we are to preserve a credible nuclear deterrent—ensuring that our diplomats continue to speak from a position of strength on matters of war and peace.

The United States remains committed to its global leadership role to reduce the number of nuclear weapons, and to fulfill existing treaty and arms control obligations. The 1991 Strategic Arms Reduction Treaty (START) set a ceiling of 6,000 accountable strategic nuclear warheads. Shorter-range nuclear weapons were almost entirely eliminated from America's nuclear arsenal in the early 1990s. The 2002 Strategic Offensive Reduction

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Treaty and the 2010 New START Treaty further lowered strategic nuclear force levels to 1,550 accountable warheads.

During this period, the U.S. nuclear weapons stockpile drew down by more than 85 percent from its Cold War high. Many hoped conditions had been set for even deeper reductions in global nuclear arsenals, and, ultimately, for their elimination, yet we must recognize that deterrence and arms control can only be achieved with a credible capability.

A review of the global nuclear situation is sobering. While Russia has reduced only the number of its accountable strategic nuclear force as agreed upon in the New START treaty, Russia is modernizing these weapons as well as other nuclear systems. Moscow advocates a theory of nuclear escalation for military conflict. China, too, is modernizing and expanding its already considerable nuclear forces, pursuing entirely new nuclear capabilities. It is also modernizing its conventional military to challenge U.S. military superiority. Despite universal condemnation in the United Nations, North Korea's nuclear provocations threaten regional and global peace, and Iran's nuclear ambitions remain an unresolved concern. Globally, nuclear terrorism remains a tangible threat.

As Senator McCain said last week, "since the end of the Cold War, we have let our nuclear capabilities atrophy under the false belief that the era of great power competition was over. As the new National Defense Strategy rightly acknowledges, we now face the renewed threat of competition from Russia and China—and we cannot ignore their investments in nuclear weapons in addition to conventional forces."

The 2018 Nuclear Posture Review reaffirms the findings of previous reviews that the nuclear triad—comprised of silo-based intercontinental ballistic missiles, bomber aircraft, and nuclear submarines—is the most strategically sound means of ensuring nuclear deterrence. To remain effective, however, we must recapitalize our Cold War legacy nuclear deterrence forces, continuing a modernization program initiated during the previous Administration.

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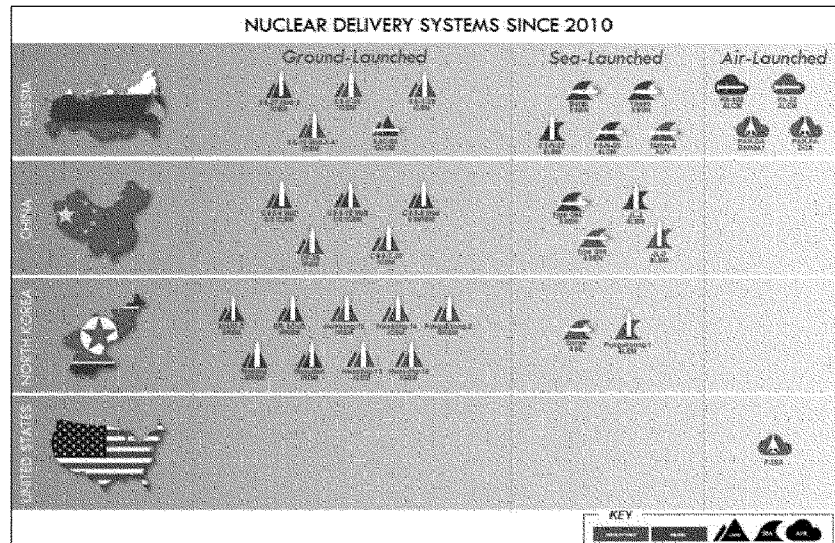


Figure 2. Development of nuclear delivery systems by competitors versus the United States.

To quote my predecessor, Secretary Carter, “we have been in a nuclear arms race for two decades now... but the U.S. hasn’t been running the race,” as you can see demonstrated in this chart [nuclear delivery systems]. That gives credence to my predecessor’s observation. Nuclear delivery system development over the last eight years shows numerous advances by Russia, China, and North Korea versus the near absence of such activity by the United States, with competitors and adversaries’ developing 34 new systems as compared to only one for the U.S.—the F-35 aircraft.

We must look reality in the eye and see the world as it is, not as we wish it to be. This Nuclear Posture Review reflects the current, pragmatic assessment of the threats we face and the uncertainties regarding the future security environment. Given the range of potential adversaries, their capabilities and strategic objectives, this review calls for a tailored nuclear deterrent strategy and a diverse set of nuclear capabilities that provides flexibility to tailor our approach to deterring one or more potential adversaries in different circumstances. We are not expanding the role of nuclear weapons, and it remains U.S. policy to consider employing nuclear weapons only in extreme circumstances to defend the vital interests of the United States, its allies, and partners.

Nuclear forces, along with our conventional forces and other instruments of national power, deter aggression and preserve peace. Our goal is to convince adversaries they have nothing to gain and everything to lose from the use of nuclear weapons. In no way does this approach lower the nuclear threshold. Rather, by convincing adversaries that even limited use of nuclear weapons will be more costly than they can tolerate, it raises that threshold.

By the time we complete the necessary modernization of these forces, the legacy systems will have served decades beyond their initial life expectancy. This review affirms the modernization programs initiated during the previous Administration to replace our nuclear ballistic missile submarines, strategic bombers, nuclear air-launched cruise missiles, ICBMs, and associated nuclear command and control. Modernizing our dual-capable fighter bombers with next-generation F-35 fighter aircraft will maintain the strength of NATO's deterrence posture and maintain our ability to forward deploy nuclear weapons, should the security situation demand it.

Recapitalizing the nuclear weapons complex of laboratories and plants is also long past due; it is vital we ensure the capability to design, produce, assess, and maintain these weapons for as long as they are required. Due to consistent underfunding, significant and sustained investments will be required over the coming decade to ensure that the National Nuclear Security Administration will be able to deliver at the rate needed to support nuclear deterrence into the 2030s and beyond.

Maintaining an effective nuclear deterrent is much less expensive than fighting a war that we were unable to deter. Maintenance costs for today's nuclear deterrent are approximately three percent of the annual defense budget. Additional funding of another three to four percent, over more than a decade, will be required to replace these aging systems. This is a top priority for the Department of Defense. We are mindful of the sustained financial commitment and gratefully recognize the ongoing support of the American people and the United States Congress for this important mission. This review rests on a bedrock truth: nuclear deterrence will continue to play a critical role in deterring nuclear attack and in preventing large-scale conventional warfare

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between nuclear-armed states for the foreseeable future. U.S. nuclear weapons assure and defend our allies against conventional and nuclear threats, furthering our non-proliferation goals and increasing global security.

I would be remiss if I did not acknowledge the vital role our service members and civilians play in maintaining a safe, secure, and ready nuclear force. Without their ceaseless and often unheralded efforts, America would not possess a nuclear deterrent. At the end of the day, deterrence comes down to the men and women in uniform – in silos, in the air, and beneath the sea. To each and every one of them, I wish to express my personal respect and that of a grateful and safe Nation.

IMPACT OF CONGRESSIONAL INACTION

The National Defense Strategy and Nuclear Posture Review align with the President's National Security Strategy, guiding all of our efforts. As I said earlier, no strategy can survive without the necessary stable, predictable funding. Failure to modernize our military risks leaving us with a force that could dominate the last war but be irrelevant to tomorrow's security. We need Congress to lift the defense spending caps and support a budget for our military.

Let me be clear: as hard as the last 16 years of war have been, no enemy in the field has done more to harm the readiness of the U.S. military than the combined impact of the Budget Control Act's defense spending caps, worsened by operating in 10 of the last 11 years under continuing resolutions of varied and unpredictable duration.

For too long we have asked our military to carry-on stoically with a "success at any cost" attitude. Our troops work tirelessly to accomplish every mission with increasingly inadequate and misaligned resources simply because the Congress has not maintained regular order. The fact that our volunteer military has performed so well is a credit to their dedication and professionalism. We expect the men and women of our military to be faithful in their service, even when going in harm's way. We must also remain faithful to them. As Speaker Ryan said in January, "our men and women in uniform are not bargaining chips."

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As Chairman Thornberry said in January, "If Congress does not come together to find a way to fund this strategy, Secretary Mattis must explicitly inform Congress and the American people of the consequences of failure."

The consequences of not providing a budget are clear. Even though we are protecting ongoing operations from CR disruptions, each increment of funding in support of our partners in Afghanistan, Iraq and Syria requires a 15-day congressional notification. My commanders in the field write to me for help in getting timely and predictable funds for their efforts as they work to execute our strategy.

Additionally, should you stumble into a yearlong continuing resolution, your military will:

- not be able to provide pay for our troops by the end of the fiscal year,
- not recruit the 15,000 Army Soldiers and 4,000 Air Force Airmen required to fill critical manning shortfalls,
- not maintain our ships at sea with the proper balance between operations and time in port for maintenance,
- ground aircraft due to a lack of maintenance and spare parts,
- deplete the ammunition, training, and manpower required to deter war, and
- delay contracts for vital acquisition programs necessary to modernize the force.

I cannot overstate the impact to our troops' morale from all this uncertainty.

Today, as I sit here, we are engaged in prudent planning for another disruptive government shutdown.

I cannot care more about our country's defense than this Congress, for it is Congress alone which has the Constitutional authority to "raise and support Armies" and to "provide and maintain" a Navy. We need Congress back in the driver's seat, not in the spectator's seat of the Budget Control Act's indiscriminate and automatic cuts.

I know that in time of a major war, Congress will provide our military with what they need. But money at the time of crisis fails to deter war, and you know we would at that

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point have no time to prepare, as it takes months and years to produce the munitions, training, and readiness required to fight well.

To carry out the strategy you rightly directed we develop, we need you to pass a budget now. If we are to sustain our military's primacy, we need budget predictability. I know many want to avoid additional spending, but Congress must take action now to ensure our military lethality is sufficient to defend our way of life, preserve the prosperity our country enjoys, and pass on the freedoms we enjoy to the next generation. I ask that you not let disagreements on domestic policy continue to hold our Nation's defense hostage.

General Selva will now discuss the military dimensions of the 2018 National Defense Strategy and Nuclear Posture Review.

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FINAL VCJCS Opening Statement
House Armed Services Committee Briefing on NDS & NPR
6 February 2018

Mr. Chairman, Ranking Member Smith, and distinguished members of the Committee, thank you for the opportunity to join Secretary Mattis to brief you on the National Defense Strategy and the Nuclear Posture Review.

General Dunford and the Joint Staff fully support the strategies outlined in the National Defense Strategy and Nuclear Posture Review. Both documents are a product of significant consultation and collaboration, and members of the Joint Staff were actively involved from the beginning.

The National Defense Strategy provides detailed defense policy guidance for military strategy, planning and operations. Therefore, the Chairman's 2016 classified National Military Strategy will require an update to maintain complete consistency with the National Defense Strategy and the President's National Security Strategy released in December.

Immediately after the National Defense Strategy published last month, General Dunford directed the Joint Staff to commence revision of the National Military Strategy, and that process is now underway. Other subsequent guidance and plans will be revised in turn to support the lines of effort outlined in the National Defense Strategy.

Additionally, we have begun a review of the Joint Staff's organization and processes to determine if we need to make adjustments to support the Chairman's global integrator responsibilities and to better position the Chairman to support the Secretary's decision making.

Refining the National Military Strategy and the Joint Staff's organization and processes are a step toward increasing the lethality and flexibility of the Joint Force in light of the reemergence of great power competition.

The Nuclear Posture Review also reflects the realities of today's security environment as well as projects the future environment and its potential impacts on U.S. nuclear weapons policy and strategy.

More specifically, the Nuclear Posture Review paid particular attention to what Russia, China and North Korea have been doing to develop, modernize and expand their nuclear weapons capabilities and integrate them into their military strategy and doctrine. The Nuclear Posture Review also took into account the potential for Iran to renew its pursuit of nuclear weapons capability in the future.

The Nuclear Posture Review determined our strategy must be tailored to each potential adversary to effectively communicate the costs of aggression, and this tailored strategy approach requires the United States to maintain a flexible and credible mix of nuclear and conventional capabilities that can address a spectrum of adversaries and threats over a significant period of time.

The Nuclear Posture Review reaffirmed the nation's nuclear Triad is the bedrock of our ability to deter aggression, assure our allies, and hedge against an uncertain future. And as the Secretary mentioned, it also reaffirmed the need to recapitalize each component of our legacy nuclear systems to ensure our nuclear capabilities remain ready, secure, capable, and credible now and in the future.

The two supplemental capabilities recommended in the Nuclear Posture Review – the nuclear-armed sea-launched cruise missile and the modification of a small number of existing submarine-launched ballistic missile warheads to provide a low-yield option – will enhance deterrence by ensuring no adversary under any circumstances can perceive an advantage through limited nuclear escalation or other strategic attack.

Fielding these capabilities will not lower the threshold at which the US would employ nuclear weapons. Rather, it will raise the nuclear threshold of potential adversaries, making nuclear weapons employment less likely.

Nuclear weapons pose the only existential military threat to our nation. Therefore, there is no higher priority for the Joint Force than fielding all components of an effective nuclear deterrent to deter potential adversaries from nuclear attack of any scale.

It's important to note the National Defense Strategy and the Nuclear Posture Review both make the assumption that the military will receive timely, predictable and sufficient funding to execute the strategies. As Secretary Mattis emphasized, we trust Congress will provide the funding we need to turn these strategies into reality.

Thank you for your time, and I look forward to your questions.

QUESTIONS SUBMITTED BY MEMBERS POST HEARING

FEBRUARY 6, 2018

QUESTIONS SUBMITTED BY MR. TURNER

Mr. TURNER. In April 2017, the State Department released its most recent arms control compliance report. It found that Russia remains in violation of the Intermediate-range Nuclear Forces (INF) Treaty. a. Secretary Mattis, what is your assessment of the impacts from Russia's violation of this treaty—both on the U.S. and our allies? b. How does the NPR and the Administration's December 2016 Russia strategy propose to address this violation? c. How long should the U.S. continue to remain in the INF Treaty if Russia continues to violate it?

Secretary MATTIS. Russia's violation of the Intermediate-range Nuclear Forces (INF) Treaty is a concrete threat to U.S. forces and to allies and partners in Europe and Asia. The value of the INF Treaty, or any arms control treaty, depends on all parties remaining in compliance. Moscow must understand that the United States will not indefinitely endure Russia's non-compliance. The status quo, in which the United States continues to comply while Russia continues deployments in violation of the Treaty, is untenable. Therefore, the United States is pursuing an integrated strategy supported by diplomatic, economic, and military research and development actions to persuade Russia to return to full and verifiable compliance. This includes a review of U.S. options for conventional, ground-launched, intermediate-range missile systems, which would enable the United States to defend itself and its allies and partners should Russia fail to return to compliance. The supplemental sea-launched cruise missile capability identified in the 2018 Nuclear Posture Review is also, in part, designed to persuade Russia to return to compliance.

Mr. TURNER. Secretary Mattis, should we be considering extending the New START Treaty while Russia is violating the INF Treaty, violating the Open Skies Treaty, violating the Treaty on Conventional Forces in Europe, and failing to comply with the Biological Weapons Convention, the Chemical Weapons Convention, and many other arms control commitments? a. Do you believe we should pursue further nuclear arms control measures with Russia while Russia is in violation of so many existing arms control agreements?

Secretary MATTIS. The United States remains willing to engage in a prudent arms control agenda. We are prepared to consider arms control opportunities that return parties to predictability and transparency, and remain receptive to future arms control negotiations if conditions permit and the potential outcome improves the security of the United States and its allies and partners. The United States will continue to implement fully the New START Treaty, which complements U.S. nuclear deterrence strategy by contributing to a transparent and predictable strategic balance between the United States and Russia. We will consider next steps related to the New START Treaty at the appropriate time, taking into account Russia's compliance with its obligations under the New START Treaty and other arms control agreements.

Russia's violation of the Intermediate-range Nuclear Forces (INF) Treaty is a concrete threat to U.S. forces and to allies and partners in Europe and Asia. The value of the INF Treaty, or any arms control treaty, depends on all parties remaining in compliance. Moscow must understand that the United States will not indefinitely endure Russia's non-compliance. The status quo, in which the United States continues to comply while Russia continues deployments in violation of the Treaty, is untenable. Therefore, the United States is pursuing an integrated strategy supported by diplomatic, economic, and military research and development actions to persuade Russia to return to full and verifiable compliance. This includes a review of U.S. options for conventional, ground-launched, intermediate-range missile systems, which would enable the United States to defend ourselves and our allies and partners should Russia fail to return to compliance. The supplemental sea-launched cruise missile capability identified in the 2018 Nuclear Posture Review is also, in part, designed to persuade Russia to return to compliance.

Mr. TURNER. In April 2017, the State Department released its most recent arms control compliance report. It found that Russia remains in violation of the Intermediate-range Nuclear Forces (INF) Treaty. General Selva, you told us last year in March that Russia had now operationally deployed the cruise missile that is violating this treaty. Tell us—is Russia taking any steps that indicate it will come back

into compliance with this treaty? Have they stopped deploying these missiles or are they deploying more of them?

General SELVA. [The information referred to is classified and retained in the committee files.]

QUESTIONS SUBMITTED BY MR. ROGERS

Mr. ROGERS. Secretary Mattis, you are now the third consecutive Secretary of Defense that has identified nuclear deterrence as the highest-priority mission of the Department of Defense. Two different Administrations, three different Secretaries. Do you believe 6 or 7 percent of our defense budget is an appropriate level of spending for the nation's number one priority defense mission? Do you believe this is affordable?

Secretary MATTIS. Yes. Maintaining an effective nuclear deterrent is much less expensive than fighting a war that we are unable to deter. We can afford this level of investment against one of the few existential threats that we face.

Mr. ROGERS. General Selva, we've now had three consecutive Secretaries of Defense identify nuclear deterrence as the highest-priority mission of the Department of Defense. Two different Administrations, three different Secretaries. Do the Joint Chiefs of Staff agree with this prioritization? Do the Joint Chiefs believe 6 or 7 percent of our defense budget is an appropriate level of spending for the nation's number one priority defense mission? Do you believe this is affordable?

General SELVA. Yes, the Joint Chiefs agree the nuclear mission is the highest priority mission of the Department of Defense. The Joint Chiefs also support the nuclear force modernization program. I agree with what Secretary Mattis said, "America can afford survival."

Mr. ROGERS. Secretary Mattis, how do the supplemental capabilities proposed by the NPR—a low-yield submarine-launched weapon and a sea-launched cruise missile—help shore up deterrence and assurance in this new era of great power competition?

Secretary MATTIS. The low-yield ballistic missile and sea-launched cruise missile are necessary to address our concerns that potential adversaries may believe they can effectively threaten or employ limited nuclear strikes. These supplemental capabilities, along with the existing elements of our Triad, provide a diverse set of nuclear capabilities that will provide flexibility to tailor the U.S. approach to deterring different potential adversaries.

Mr. ROGERS. Secretary Mattis, do the supplemental capabilities proposed by the NPR lower the threshold for nuclear use? Are they about nuclear warfighting or about ensuring conflict is avoided all-together? Do you believe the addition of these capabilities to the U.S. nuclear arsenal increase or decrease the likelihood of a nuclear war?

Secretary MATTIS. By convincing adversaries that even limited use of nuclear weapons will be more costly than they can tolerate, we raise the threshold for nuclear weapons use and decrease the likelihood of nuclear war.

Mr. ROGERS. Secretary Mattis, why do we need a low-yield SLBM when we already have a low-yield nuclear gravity bomb? Are these capabilities redundant? How do adversary air defenses factor into the recommendation for a low-yield SLBM?

Secretary MATTIS. The low-yield submarine-launched ballistic missile (SLBM) is highly survivable when deployed in ballistic nuclear submarines at sea, while our gravity bombs are more vulnerable in fixed storage and operating locations. SLBMs are highly accurate and, given their speed and trajectory, are better able to penetrate modern defenses that could challenge air-delivered weapons. This does not reduce the need for air-delivered gravity bombs and dual-capable aircraft, which can be forward deployed, contribute to allied burden sharing, provide visible assurance to both allies and partners, and serve as a tangible demonstration of U.S. extended deterrence guarantees.

Mr. ROGERS. General Selva, in your professional military judgment, why do we need a low-yield SLBM when we already have a low-yield nuclear gravity bomb? Are these capabilities redundant? How do adversary air defenses factor into the recommendation for a low-yield SLBM?

General SELVA. One of the main roles of U.S. nuclear capabilities is to deter adversaries. Deterrence is an art, not a science. It is not possible to determine precisely what is needed to deter with high confidence across a range of potential adversaries and circumstances.

It is, however, possible to get indications that one's deterrence strategy, posture, and capabilities are potentially inadequate, and that as a result there is an unacceptable risk of deterrence failure. Russian strategy, doctrine, and capabilities call

for the limited use of nuclear weapons to coerce NATO, and to defeat NATO conventional forces through the wider use of nuclear weapons if their coercive use fails. They would not have adopted this strategy and doctrine, and they would not be expending their limited resources to modernize and expand their non-strategic nuclear forces (which are already approximately ten times larger than NATO's), if they perceived current U.S. and NATO nuclear posture as undeniably sufficient to deter such nuclear use.

The strategy and capabilities recommended in the NPR are intended to reduce Russian confidence in their strategy by providing a wider array of credible response options that can render their strategy ineffective. Our purpose is to raise Russia's nuclear threshold, not reduce our own.

A low-yield SLBM warhead will provide a near-term, relatively inexpensive augmentation of our ability to credibly strike any target in response to Russian limited nuclear use. A low-yield SLBM warhead is survivable, prompt, and is able to strike targets that are heavily defended against air-delivered strikes. All current U.S. low-yield options are air delivered. Acquiring this capability will not lower the threshold at which the United States would employ nuclear weapons. Rather, it is designed to raise the nuclear threshold of potential adversaries.

Possessing multiple low-yield strike capabilities is not redundant. These systems will be "complementary" capabilities necessary to address various potential adversary threat environments (e.g. integrated air defenses) in a more credible manner.

Mr. ROGERS. General Selva, in April 2017, the State Department released its most recent arms control compliance report. It found that Russia remains in violation of the Intermediate-range Nuclear Forces (INF) Treaty. General Selva, you told us last year in March that Russia had operationally deployed the cruise missile that is violating this treaty. Tell us—is Russia taking any steps that indicate it will come back into compliance with this treaty? Have they stopped deploying these missiles or are they deploying more of them?

General SELVA. [The information referred to is classified and retained in the committee files.]

Mr. ROGERS. Secretary Mattis, what is your assessment of the impacts from Russia's violation of the INF Treaty? What impact may this violation have on our military, defense posture, and that of our allies? How does the NPR and the Administration's December 2016 Russia strategy propose to address this violation? How long should the U.S. continue to remain in the INF Treaty if Russia continues to violate it?

Secretary MATTIS. Russia's violation of the Intermediate-range Nuclear Forces (INF) Treaty is a concrete threat to U.S. forces and to allies and partners in Europe and Asia. The status quo, in which the United States continues to comply while Russia continues deployments in violation of the Treaty, is untenable. Therefore, the United States is pursuing an integrated strategy supported by diplomatic and economic measures as well as military research and development actions intended to persuade Russia to return to full and verifiable compliance. This includes a review of U.S. options for conventional, ground-launched, intermediate-range missile systems which would enable the United States to defend ourselves and our allies and partners should Russia fail to return to compliance. The supplemental sea-launched cruise missile capability identified in the 2018 Nuclear Posture Review is also, in part, designed to persuade Russia to return to compliance.

Mr. ROGERS. Secretary Mattis, should we be considering extending the New START Treaty while Russia is violating the INF Treaty, violating the Open Skies Treaty, violating the Treaty on Conventional Forces in Europe, and failing to comply with the Biological Weapons Convention, the Chemical Weapons Convention, and many other arms control commitments? Do you believe we should pursue further nuclear arms control measures with Russia while Russia is in violation of so many existing arms control agreements?

Secretary MATTIS. The United States remains willing to engage in a prudent arms control agenda. We are prepared to consider arms control opportunities that return parties to predictability and transparency, and remain receptive to future arms control negotiations if conditions permit and the potential outcome improves the security of the United States and its allies and partners. The United States will continue to fully implement the New START Treaty, which complements U.S. nuclear deterrence strategy by contributing to a transparent and predictable strategic balance between the United States and Russia. We will consider next steps related to the New START Treaty at the appropriate time, taking into account Russia's compliance with its obligations under the New START Treaty and other arms control agreements. We will also work to bring Russia into compliance with its existing arms control obligations, using military tools integrated with diplomatic and economic measures as appropriate.

Mr. ROGERS. Secretary Mattis, is the nuclear declaratory policy in the 2018 NPR in any significant way different from the Obama administration's declaratory policy?

Secretary MATTIS. No. The declaratory policy outlined in the 2018 Nuclear Posture Review (NPR) is consistent with the declaratory policy outlined in the 2010 NPR. The United States would only consider the use of nuclear weapons in extreme circumstances to defend the vital interests of the United States, its allies and partners. Unlike the 2010 NPR, the 2018 NPR provides examples of "extreme circumstances," which could include significant non-nuclear strategic attacks.

Mr. ROGERS. General Selva, is the nuclear declaratory policy in the 2018 NPR in any significant way different from the Obama administration's declaratory policy?

General SELVA. It is different only in that it is deliberately somewhat less ambiguous regarding what might constitute the "extreme circumstances" in which we might consider the use of nuclear weapons to defend the vital interests of the U.S. and our allies and partners. This clarification does not in any way expand those circumstances. It clarifies them in order to prevent misperception or miscalculation that could result in deterrence failure.

Mr. ROGERS. General Selva, do all of the Joint Chiefs of Staff recommend and support the major recommendations of the Nuclear Posture Review? Why?

General SELVA. Yes. Because they recognize that deterrence of nuclear attack is the highest priority mission of the Department of Defense, and is thus a "No Fail" mission. The NPR recommendations are a prudent approach to ensuring mission success.

Mr. ROGERS. Secretary Mattis, were our allies consulted as the NPR was being considered and drafted? What did they say? How are they reacting to the proposal to continue the Obama administration's program of record and add two supplemental capabilities?

Secretary MATTIS. Throughout the Nuclear Posture Review, we consulted extensively with allies and partners. They were unanimous in the view that the security environment has changed for the worse since 2010; offered a range of opinions on the environment and the continued need for nuclear deterrence; and appreciated our efforts to consult with them. Our East Asian allies in particular appreciated the reaffirmation of U.S. extended deterrence commitments. In Europe, reactions were positive, particularly our moves to strengthen deterrence, reaffirm our declaratory policy, and further the goals of the Treaty on Non-Proliferation of Nuclear Weapons. A number of European allies emphasized the importance of balancing deterrence with arms control and non-proliferation initiatives. Reactions to continuation of the U.S. nuclear modernization program were generally positive. No European allies objected to the inclusion of the supplemental capabilities. Many viewed these supplemental capabilities as an appropriate counter-balance to Russian, Chinese and North Korean developments, while some did express reservations over possible Russian and Chinese reactions.

Mr. ROGERS. Secretary Mattis, are you satisfied with DOD's relationship with the National Nuclear Security Administration (which supplies and maintains U.S. nuclear warheads)? What works best in this relationship? What would you change? Is the forum for this relationship, the Nuclear Weapons Council, functioning as it should? How often do you speak to your counterparts in NNSA and the Department of Energy?

Secretary MATTIS. The Department of Defense works closely with the Department of Energy's National Nuclear Security Administration (NNSA) to ensure that the U.S. nuclear stockpile and its supporting infrastructure provide the warheads our forces need to reliably deter nuclear attack against the United States, our allies and partners. I look forward to working closely with Secretary Perry and the new NNSA Administrator, Ms. Gordon-Hagerty, on modernizing and recapitalizing all aspects of the U.S. nuclear deterrent and U.S. nuclear infrastructure to ensure a safe, secure, and effective deterrent that protects the homeland, assures allies and above all, deters adversaries.

Mr. ROGERS. General Selva, are you satisfied with DOD's relationship with the National Nuclear Security Administration (which supplies and maintains U.S. nuclear warheads)? What works best in this relationship? What would you change? Is the forum for this relationship, the Nuclear Weapons Council, functioning as it should? How often do you speak to your counterparts in NNSA and the Department of Energy?

General SELVA. *Are you satisfied with DOD's relationship with the National Nuclear Security Administration (which supplies and maintains U.S. nuclear warheads)?* Overall, I am satisfied with the relationship between the Department of Defense (DOD) and the National Nuclear Security Administration (NNSA). That doesn't mean there's no room for improvement.

What works best in this relationship? The Nuclear Weapons Council.

What would you change? There is an increasing requirement for transparency and timeliness of communication between the DOD and NNSA through the NWC and its subordinate committees and staff. This needs to improve in order to ensure success in the nuclear enterprise modernization effort.

Is the forum for this relationship, the Nuclear Weapons Council, functioning as it should? Yes.

How often do you speak to your counterparts in NNSA and the Department of Energy? The NWC meets monthly, and I also meet with my DOD and NNSA counterparts as needed in addition to these regularly scheduled meetings.

Mr. ROGERS. Secretary Mattis, the Obama administration had a policy of not pursuing any new U.S. nuclear capabilities and reducing the role of U.S. nuclear weapons in our national security strategy. The 2010 NPR claimed this would show leadership and discourage other nations from pursuing their own new nuclear capabilities. Has this policy influenced the behavior of foreign nuclear powers, in particular of Russia? If our potential adversaries are not following our lead here, is it dangerous for us to continue down this road indefinitely if no other nation—except perhaps our closest ally in the U.K.—is doing the same? In your view, how likely is it that the U.S. nuclear deterrent can remain credible to 2050 or beyond if we never modify or improve its nuclear capabilities while other countries continue to advance?

Secretary MATTIS. For decades, the United States led the world in efforts to reduce the roles and number of nuclear weapons. The assumptions and priority goals that guided these efforts, as well as the content of the 2001 and 2010 Nuclear Posture Reviews, proved to be mistaken. Although the United States has reduced its nuclear arsenal by more than eighty-five percent since its Cold War peak, others have moved in the opposite direction. Russia, China and North Korea are growing their stockpiles, increasing the prominence of nuclear weapons in their security strategies, and—in some cases—pursuing the development of new nuclear capabilities to threaten peaceful nations. In this environment, it is not possible to delay modernization of U.S. nuclear forces if we are to preserve a credible nuclear deterrent. This is a top priority of the Department of Defense.

Mr. ROGERS. Secretary Mattis, one of the supplemental capabilities your NPR proposes is a nuclear-armed sea-launched cruise missile, which we had in our arsenal for decades until the Obama administration decided to eliminate it in 2010. So is this a “new” capability—or is it just bringing back an old capability because the world didn’t turn out to be quite as benign as we may have wished.

Secretary MATTIS. The nuclear armed sea-launched cruise missile is not a new capability as the United States deployed such weapons in the past.

QUESTIONS SUBMITTED BY MR. CONAWAY

Mr. CONAWAY. Are you familiar with the Chinese telecommunications firms, Huawei and ZTE? As you know, these firms are closely linked to China’s Communist Party and its intelligence services. Do you believe it is appropriate for the Department of Defense to use that equipment with its intrinsic risks to department cybersecurity? Do you think cleared defense contractors should use it? Please elaborate any thoughts or comments you have.

Secretary MATTIS. Yes, the Department is familiar with Huawei and ZTE and their linkages to the Government of the People’s Republic of China. Yes, the Department is concerned with use of any hardware, software or service that foreign governments have influence over the supply chains. I agree these companies’ products present a risk to the Department’s cybersecurity and their use by cleared defense contractors as it pertains to the Department’s systems and information.

Mr. CONAWAY. Are you familiar with the Chinese telecommunications firms, Huawei and ZTE? As you know, these firms are closely linked to China’s Communist Party and its intelligence services. Do you believe it is appropriate for the Department of Defense to use that equipment with its intrinsic risks to department cybersecurity? Do you think cleared defense contractors should use it? Please elaborate any thoughts or comments you have.

General SELVA. *Are you familiar with the Chinese telecommunications firms, Huawei and ZTE?* Answer: Yes. Huawei and ZTE are two of the largest Chinese telecommunications equipment providers in the world. Historically, both companies have engaged in business practices of concern, especially within the context of U.S. National Security. Additionally, Chinese security laws may present situations that would prioritize Chinese National Security interests over corporate interests—a threat that increases the more saturated the telecommunications market becomes with both companies.

Do you believe it is appropriate for the Department of Defense to use that equipment with its intrinsic risks to department cybersecurity? Answer: While I personally have no formal role in DOD procurement actions, I do feel that cybersecurity supply chain risks need to have a stronger consideration in acquisition decisions. The critical nature our information has on national security and military operations demands we use companies that are vetted and screened to provide the highest level of security. We must continue to improve network security and resilience to ensure adversaries gain neither a real or perceived advantage. It remains a priority for the Joint Force to protect and defend its critical infrastructure from attacks, as well as defend the nation's networks against cyberattacks of significant consequence. However, there is no policy that currently restricts the use of these products.

Do you think cleared defense contractors should use it? Answer: DOD acquisition decisions to reduce supply chain risks to cybersecurity ultimately depend upon cleared defense contractors to be effective, and demands we use companies that are vetted and screened to provide the highest level of security. Within that context, these cleared defense contractors should be very cautious in their acquisition and use of certain products, not just in DOD systems, but also in corporate networks, systems and devices that could provide a threat actor with access to DOD systems and associated critical program information.

QUESTIONS SUBMITTED BY MR. LAMBORN

Mr. LAMBORN. The National Defense Strategy acknowledges space as a warfighting domain and recognizes the need to organize for innovation and introduce streamlined approaches to fielding new capabilities.

But DOD's record on producing space systems is abysmal. One recent example is SBIRS, the Space-Based Infrared System that provides us with missile warning. It experienced a 221% per unit cost increase with a 9-year delay.

- What kind of reforms is the Department taking to ensure our space warfighting readiness?

We have observed the long-term strategic competition with China and Russia for years, specifically with regard to our space capabilities. While we have stagnated in delivering space capabilities to our warfighters, China and Russia are dangerously close to outpacing us.

- What kinds of capabilities, policies, and authorities does the Department need to ensure that we stay ahead of these countries and are able to fight and win through the space domain?
- Clearly our failure to adequately prioritize space warfighting is not merely a budgetary issue, but given that we're coming off of a 30-year low in R&D investment, more resources would certainly be useful, and also would say a lot about our commitment to space. When should Congress expect to see space given a higher priority in DOD's budget?

Secretary MATTIS. Congress can see the higher priority on space security in the President's Budget request, in the new National Strategy for Space, in the National Security Strategy, and the National Defense Strategy. Aligned with those strategies, the President's Budget request includes \$12.5 billion for Department of Defense (DOD) space programs in Fiscal Year (FY) 2019, which is an increase of 9.4 percent over the FY 2018 request. The President's Budget request also includes \$65.6 billion over the FY 2019–23 Future Years Defense Plan (FYDP), which reflects 13.9 percent growth over the previous five-year planning period. As Congress has directed, DOD has consolidated this funding under Major Force Program-12 to facilitate the DOD leadership's strategic management and Congress' oversight of DOD's space funding and programs. To compete, deter, and win through space, DOD must continue to develop, test, deploy, and sustain the innovative and resilient space capabilities our warfighters need to fight and win in all domains. To that end, the FY 2019 defense space budget request provides for increases in mission assurance of DOD's space-based capabilities against growing threats, leverages commercial innovation and our international partnerships to accelerate development and deployment of new capabilities, strengthens lethality and readiness of the total force, and enhances the nation's overall deterrence and warfighting power. Furthermore, as Congress directed under Section 1601(c) of the National Defense Authorization Act for FY 2018, the Deputy Secretary of Defense is assessing the performance of the entire defense space enterprise and developing reform recommendations that DOD will be providing to Congress by August 2018.

Mr. LAMBORN. The NPR puts considerable focus on three elements of our nuclear deterrent that sometimes receive scant attention: (1) the nuclear command, control, and communications (NC3) system, which is old but reliable and must be modern-

ized; (2) the infrastructure within NNSA that is literally falling apart; (3) and the people in uniform and out civilian clothes, across DOD and NNSA, that form the backbone of our deterrent. Without any of these three, we simply do not have a nuclear deterrent in this country.

- How have threats to our nuclear command, control, and communications (NC3) system changed over time? What are the nature of the threats to our NC3, particularly with regards to cyber attacks, attacks on space-based assets, and potential adversary use of limited, low-yield nuclear strikes?
- Because it is so large and complex, responsibility for the NC3 system is scattered across DOD. What steps does the NPR recommend to address this organizational problem?
- What steps are being proposed to get after NNSA's \$4 billion backlog of infrastructure problems and deferred maintenance?
- How will we ensure we take care of the unsung heroes of national defense in DOD and NNSA that operate, support, and provide our nuclear deterrent?

Secretary MATTIS. The Nuclear Command, Control and Communication (NC3) system is subject to challenges from both aging system components and new threats, in particular space and cyber-space, adversary strategies of limited nuclear escalation, and a diffusion of authority and responsibility. The Administration is pursuing a series of steps to strengthen NC3, including: 1) improving protection against space-based and cyber threats; 2) enhancing integrated tactical warning and attack assessment; 3) improving command post and communication links; 4) advancing decision support technology; and 5) integrating planning and operations. The Nuclear Posture Review (NPR) directs the Chairman of the Joint Chiefs of Staff to deliver to me by 1 May a plan to reform NC3 governance.

There is no margin for further delay in recapitalizing the physical infrastructure needed to produce strategic materials and components for U.S. nuclear weapons. Just as our nuclear forces are an affordable priority, so is a resilient and effective nuclear weapons infrastructure. The NPR lays out several specific initiatives that National Nuclear Security Agency will pursue and fund in its budget requests, and implementation of these efforts is ongoing. The personnel who maintain our nuclear deterrent are true professionals; I am committed to ensuring they have the tools needed to execute their mission.

Mr. LAMBORN. The NPR puts considerable focus on three elements of our nuclear deterrent that sometimes receive scant attention: (1) the nuclear command, control, and communications (NC3) system, which is old but reliable and must be modernized; (2) the infrastructure within NNSA that is literally falling apart; (3) and the people in uniform and out civilian clothes, across DOD and NNSA, that form the backbone of our deterrent. Without any of these three, we simply do not have a nuclear deterrent in this country.

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General SELVA. *Q: How have threats to our nuclear command, control, and communications (NC3) system changed over time? What are the nature of the threats to our NC3, particularly with regards to cyber attacks, attacks on space-based assets, and potential adversary use of limited, low-yield nuclear strikes?*

A: The Cold War legacy nuclear command, control, and communications (NC3) system, which was last comprehensively updated almost thirty years ago, was designed to operate in the face of a singular threat from a single adversary. Since then, the NC3 system has grown increasingly vulnerable to cross-domain threats from multiple actors. Potential adversaries are expending considerable effort in the Space and Cyber domains in particular that create new challenges for the NC3 system. The potential for adversaries to employ limited nuclear options further complicates the NC3 system's ability to assure the command and control of nuclear weapons at all times.

Q: Because it is so large and complex, responsibility for the NC3 system is scattered across DOD. What steps does the NPR recommend to address this organizational problem?

A: To address this challenge, the Nuclear Posture Review report directed the Chairman of the Joint Chiefs of Staff in consultation with key DOD stakeholders to deliver to the Secretary of Defense no later than May 1, 2018, a plan to reform NC3 governance to ensure its effective functioning and modernization. We must, and we will improve NC3 governance to ensure the Department of Defense (DOD) is properly organized to maintain a fully capable NC3 system to address current and future environments.

Q: How have threats to our nuclear command, control, and communications (NC3) system changed over time? What are the nature of the threats to our NC3, particularly with regards to cyber attacks, attacks on space-based assets, and potential adversary use of limited, low-yield nuclear strikes?

A: The Cold War legacy nuclear command, control, and communications (NC3) system, which was last comprehensively updated almost thirty years ago, was designed to operate in the face of a singular threat from a single adversary. Since then, the NC3 system has grown increasingly vulnerable to cross-domain threats from multiple actors. Potential adversaries are expending considerable effort in the Space and Cyber domains in particular that create new challenges for the NC3 system. The potential for adversaries to employ limited nuclear options further complicates the NC3 system's ability to assure the command and control of nuclear weapons at all times.

Q: What steps are being proposed to get after NNSA's \$4 billion backlog of infrastructure problems and deferred maintenance? How will we ensure we take care of the unsung heroes of national defense in DOD and NNSA that operate, support, and provide our nuclear deterrent?

A: The United States will pursue initiatives to ensure the necessary capability, capacity, and responsiveness of the nuclear weapons infrastructure and the needed skills of the nuclear enterprise workforce, including the following:

- Pursue a joint DOD and DOE advanced-technology development capability to ensure that efforts are appropriately integrated to meet DOD needs.
- Provide the enduring capability and capacity to produce plutonium pits at a rate of no fewer than 80 pits per year by 2030. A delay in this would result in the need for a higher rate of pit production at higher cost.
- Ensure that current plans to reconstitute the U.S. capability to produce lithium compounds are sufficient to meet military requirements.
- Fully fund the Uranium Processing Facility and ensure availability of sufficient low-enriched uranium to meet military requirements.
- Ensure the necessary reactor capacity to produce an adequate supply of tritium to meet military requirements.
- Ensure continuity in the U.S. capability to develop and manufacture secure, trusted strategic radiation-hardened microelectronic systems beyond 2025 to support stockpile modernization.
- Rapidly pursue the Stockpile Responsiveness Program established by Congress to expand opportunities for young scientists and engineers to advance warhead design, development, and production skills.
- Develop an NNSA roadmap that sizes production capacity to modernization and hedging requirements.
- Retain confidence in nuclear gravity bombs needed to meet deterrence needs.
- Maintain and enhance the computational, experimental, and testing capabilities needed to annually assess nuclear weapons.

QUESTIONS SUBMITTED BY MR. HUNTER

Mr. HUNTER. Right now we are seeing North Korea pursuing a charm offensive with South Korea through its offered participation in the Winter Olympics. How long do you anticipate the charm offensive will last and do you see it as genuine progress or just a temporary distraction? What concern do you have if North Korea continues to advance its weapons and delivery programs at the pace it is undertaking during this lull? Where does this all end? What should the Congress be prepared for if a military conflict occurs?

Secretary MATTIS. Congress can see the higher priority on space security in the President's Budget request, in the new National Strategy for Space, in the National Security Strategy, and the National Defense Strategy. Aligned with those strategies, the President's Budget request includes \$12.5 billion for Department of Defense (DOD) space programs in Fiscal Year (FY) 2019, which is an increase of 9.4 percent over the FY 2018 request. The President's Budget request also includes \$65.6 billion over the FY 2019–23 Future Years Defense Plan (FYDP), which reflects 13.9 percent growth over the previous five-year planning period. As Congress has directed, DOD

has consolidated this funding under Major Force Program-12 to facilitate the DOD leadership's strategic management and Congress' oversight of DOD's space funding and programs. To compete, deter, and win through space, DOD must continue to develop, test, deploy, and sustain the innovative and resilient space capabilities our warfighters need to fight and win in all domains. To that end, the FY 2019 defense space budget request provides for increases in mission assurance of DOD's space-based capabilities against growing threats, leverages commercial innovation and our international partnerships to accelerate development and deployment of new capabilities, strengthens lethality and readiness of the total force, and enhances the nation's overall deterrence and warfighting power. Furthermore, as Congress directed under Section 1601(c) of the National Defense Authorization Act for FY 2018, the Deputy Secretary of Defense is assessing the performance of the entire defense space enterprise and developing reform recommendations that DOD will be providing to Congress by August 2018.

Mr. HUNTER. The Nuclear Posture Review (NPR) recommends we retain the long-standing ability to forward-deploy dual-capable aircraft, like F-15s and eventually F-35s, around the world—not just in Europe. This includes Asia. Why is the ability to deploy dual-capable aircraft like F-35s to Asia—in support of allies like Japan and South Korea—important? Do our dual-capable aircraft help reassure our allies in Asia?

Secretary MATTIS. Dual capable aircraft should be capable and ready to forward deploy to any region, to provide a clear signal to potential adversaries that the United States possesses the forward-deployed capabilities to respond promptly to potential escalation. Their tangible presence also contributes significantly to the assurance of allies. Dual capable aircraft make the U.S. nuclear deterrent more flexible and enable better tailoring of our strategy to possible regional adversaries.

Mr. HUNTER. Right now we are seeing North Korea pursuing a charm offensive with South Korea through its offered participation in the Winter Olympics. How long do you anticipate the charm offensive will last and do you see it as genuine progress or just a temporary distraction? What concern do you have if North Korea continues to advance its weapons and delivery programs at the pace it is undertaking during this lull? Where does this all end? What should the Congress be prepared for if a military conflict occurs?

General SELVA.

- It is important to first remember that North Korea has a consistent track record of following periods of increased provocations with “charm offensives” in hopes of extracting favorable concessions from negotiations.
- At this point, it is difficult to assess whether North Korea's current calls for engagement will offer any different results. It is likely, however, that North Korea will not conduct any actions that will jeopardize the North-South Summit tentatively targeted for April and the potential meeting with President Trump in May.
- It would be a mistake to assume that North Korea will cease to advance its weapons and delivery programs during this period. We certainly do not operate under this assumption and remain focused on supporting the Maximum Pressure Campaign to the fullest extent. We will also maintain the readiness of our military forces to conduct a wide range of military options.
- Our end state still remains the Complete, Irreversible, and Verifiable Denuclearization of the Korean Peninsula.
- Both Secretary Mattis and General Dunford have been clear on the potential costs of military conflict on the Korean Peninsula. We will prevail but Congress, and the American people, must be prepared for a conflict that would result in a loss-of-life unlike any of us have experienced in our lifetimes.

Mr. HUNTER. The Nuclear Posture Review (NPR) recommends we retain the long-standing ability to forward-deploy dual-capable aircraft, like F-15s and eventually F-35s, around the world—not just in Europe. This includes Asia. Why is the ability to deploy dual-capable aircraft like F-35s to Asia—in support of allies like Japan and South Korea—important? Do our dual-capable aircraft help reassure our allies in Asia?

General SELVA. The United States retains dual-capable aircraft (DCA) to enhance stable regional deterrence and assure our allies. They can be deployed globally to signal to both adversaries and allies U.S. resolve and capability to respond to aggression and escalation. The NPR did not conclude that permanently deploying DCA to Asia at this time is necessary for deterrence or assurance purposes. Having the ability to forward deploy DCA assures allies that the United States has effective, credible, and flexible options to respond to aggression against them.

QUESTIONS SUBMITTED BY MRS. HARTZLER

Mrs. HARTZLER. Would you please discuss the requirement for the LRSO cruise missile? Some are saying we don't need the LRSO if we already have a penetrating bomber, such as the B-2 or B-21, armed with nuclear gravity bombs. But the new Nuclear Posture Review states very clearly that we need both LRSO and the B-21 bomber.

a. How do capabilities like LRSO, our bombers, and the nuclear-armed sea-launched cruise missiles contribute to assurance and deterrence in Asia? Do they reassure allies like Japan and South Korea while deterring potential adversaries like China and North Korea?

b. We know how hard it is to defense against cruise missiles. Is LRSO a cost-imposing strategy on our adversaries—would it force them to spend lots of money if they want to defend against it? Please discuss aging and maintenance in our current air-launched cruise missiles. What happens to these missiles and this capability if LRSO is not fielded on time? What is the risk to a credible nuclear deterrent?

Secretary MATTIS. The Long-Range Stand-Off (LRSO) missile is critical to ensure a diverse range of nuclear response options. Along with a series of modernization efforts, LRSO will enable the B-52H to remain an effective part of the nuclear-capable bomber force. The B-21 will be able to deliver both gravity bombs and the LRSO, maximizing operational flexibility and effectiveness against a wide variety of threats around the world.

Capabilities like the LRSO, bombers, and a modern sea-launched cruise missile (SLCM) will provide the capability and capacity to disperse forces across a variety of geographical locations and with multiple flight profiles. This flexibility complicates adversary defense planning, deters potential adversaries, and assures allies and partners, particularly in Asia. Although the SLCM is complementary to the LRSO, it is not a substitute because LRSO is necessary to sustain an effective bomber-leg of the Triad. Further, LRSO will preserve the bomber-leg's survivability potential and serve as a hedge against unforeseen technical, programmatic, and geopolitical challenges.

The Air Launched Cruise Missile (ALCM), a system initially fielded in the 1980s, is decades beyond its planned lifetime, faces a growing threat from advanced air defense systems, and is becoming more difficult to effectively sustain as it ages. It will not last much beyond the LRSO planned availability. We must replace the aged ALCM force in a timely way to maintain the credibility and viability of the Triad's bomber-leg.

Mrs. HARTZLER. The force shaping construct will likely drive additional requirements for a larger force structure. The Navy and the Air Force appear to be acutely impacted by the NDS. What is the timeline for the services to align with the NDS and complete the new force structure assessments?

Secretary MATTIS. I anticipate the Services will have completed their assessments and any required adjustments will be reflected in the President's Budget for Fiscal Year 2020.

Mrs. HARTZLER. The NDS makes clear that the size of our force matters. Could you discuss what impact the current budget uncertainty has on the ability to responsibly and effectively grow the force?

Secretary MATTIS. The budget uncertainty associated with spending caps and repeated continuing resolutions certainly had negative impacts on the Department, and I welcome the recently enacted spending levels that will hopefully afford the Department more budgetary predictability. The National Defense Strategy requires modernized force structure and the Department needs forces that are lethal, resilient, agile, and ready. The Department needs sufficient quantities of those capable forces to amass the combat power necessary for major contingencies where the force will be contested across all domains.

Budget predictability is essential to striking the right balance of investment in modernization, force structure sustainment, and readiness across the FYDP to achieve these effects. In the Fiscal Year (FY) 2019 President's Budget submission, we intend to grow end-strength (manpower) and certain types of platforms (e.g., surface ships), but we are not yet growing major combat formations (e.g., whole new brigade combat teams or fighter squadrons) given the priority to modernize the Joint Force before we grow in that specific way. The Department is doing everything it can to ensure the best return on investment with the stable budgeting Congress is giving us in FY 2018 and 2019, and we need that stability to continue into FY 2020 and beyond.

Mrs. HARTZLER. The end of the Cold War, along with other factors, resulted in the early termination of the B-2 program—ultimately only 21 of the planned 127 were built, ballooning “per copy” costs and creating a ripple effect of supply chain

issues that plague the program to this day. The B-2 bomber is the only aircraft in the bomber fleet that is able to operate in contested airspace. Today, we have 20 B-2 bombers—less when you take into account the number that are undergoing maintenance versus combat coded. In addition, the B-52s, which are not able to operate in contested airspace, are over 50 years old. Can you comment on the importance of keeping the B-21 program on time, on budget, and at the full number requested? How do continuing resolutions effect DOD's ability to do just that and what is the ultimate impact on our nuclear assurance and deterrence?

Secretary MATTIS. The Department will continue to maintain a strong, credible bomber force, comprised of B-1s, B-2s, and B-52s until the B-21s are operational. The B-21 will replace much of the legacy bomber fleet and will become the backbone of the U.S. strategic bomber fleet and serve as a highly capable, visible, flexible deterrent to our adversaries. Therefore, it is essential the program continue to execute on time and budget and that we field a minimum of 100 B-21 aircraft.

Continuing resolutions add considerable budget uncertainty and are detrimental to the ability to execute modernization efforts across the board, to include programs like B-21 which is integral to nuclear assurance and deterrence modernization. Stable and predictable budgets are absolutely essential to satisfying B-21 cost and schedule targets.

QUESTIONS SUBMITTED BY MR. SCOTT

Mr. SCOTT. Secretary Mattis and General Selva, in light of the changes in the National Defense Strategy (NDS) and the emphasis on Great Power competition, this Committee received testimony on January 30, 2018, on "Readying the U.S. Military for Future Warfare" which pointed to the over-dependency of the force on space, as a critical vulnerability.

Do you believe it is wise to double-down on the vulnerabilities of space versus the development of capabilities which can operate in the absence of connectivity with space?

Do you believe system redundancy is a necessity when facing the reality of a high-end war with a peer competitor?

Secretary MATTIS. Space is integral to modern, multi-domain warfare. Space capabilities compound the lethality of U.S. forces, enabling them to shoot, maneuver, and communicate with greater speed, precision, accuracy, and clarity. Space provides many advantages that cannot be replicated from other domains. As in any warfighting domain, it is essential to balance our reliance on space capabilities with mission assurance of those capabilities in the face of growing threats. The National Defense Strategy places high priority on strengthening mission assurance in the space domain by creating more resilient space capabilities that are also more easily defended and reconstituted. Redundancy is one of many pathways the Department pursues to strengthen resilience. Redundancy can be achieved by diversification within the space domain and across all domains through networks of U.S., allied, partner, and commercial capabilities.

Mr. SCOTT. Secretary Mattis, in your National Defense Strategy (NDS) document you describe a need to be "strategically predictable, but operationally unpredictable." Can you describe for the Committee what this means for troop rotations and overseas assignments in terms of the new Global Operating Model of "contact," "blunt," "surge," and "homeland forces"?

Secretary MATTIS. Deterrence calls for the Department to unfailingly meet the nation's defense commitments and defend the nation's interests against any foe. Simultaneously, the Department must be more agile and flexible in how we fulfill those commitments to make the job of our competitors as difficult as possible.

The Global Operating Model and Dynamic Force Employment balance these demands. The four layers mix persistent forward forces with an ability to surge when and where needed. Dynamic Force Employment supplies forces in a less predictable way and improves the long-term readiness of the Joint Force.

Mr. SCOTT. Secretary Mattis, with the shift in the Department's focus towards Great Power competition and high-end warfare, can you speak to the risk we are incurring and possible capability losses in terms of low-intensity conflicts in areas such as AFRICOM and SOUTHCOM? Is there a risk in returning to a dominate focus on Great Powers which would come at the cost of readiness for low-intensity operations, that to date have been a focus for the Department of Defense? I believe the homeland would come under significant risk if the Department were to shift resources away from these mission areas.

Secretary MATTIS. The National Defense Strategy's (NDS) focus on lethality and readiness for high-end warfighting generally requires different kinds of capability

and force structure than that needed to meet the demands of low-intensity operations in the U.S. Africa Command and U.S. Southern Command areas of responsibility. The Fiscal Year 2019 budget sustains funding for general purpose and special operations capabilities tailored for these low-intensity demands. The NDS prioritizes readiness recovery and more targeted capabilities to meeting these kinds of demands (e.g., light attack fighters) going forward.

Mr. SCOTT. Gentlemen, the rise of “Mega-cities” including the build-up of urban areas in Asia, Africa, and Europe, increase the likelihood of future urban warfare. Do you foresee protracted warfare in urban and peri-urban areas as an inevitable conclusion and if so, what steps are being taken to prepare the Force?

Secretary MATTIS. Urban combat has been and will remain a fundamental aspect of warfare. The Joint Force has gained significant experience in urban operations over the last 17 years of war and has worked to preserve the hard-won lessons learned. The Joint Force continues to hone its expertise and preparedness for urban warfare across the spectrum of conflict. In this vein, the Department is enhancing close combat lethality and survivability, including in urban environments.

Mr. SCOTT. Secretary Mattis, during your confirmation hearing you stated you would examine the arguments behind whether or not the Long Range Stand-Off Missile (LRSO) is destabilizing because it can be armed with either a conventional warhead or a nuclear warhead. Well, the Nuclear Posture Review (NPR) you released last week fully endorses LRSO and calls for its development to continue. It notes that several potential adversaries, particularly Russia, have many weapons systems that can be nuclear or conventional and that our current air-launched cruise missiles have this capability too. So did you conclude that LRSO is not, in fact, destabilizing?

Secretary MATTIS. As part of Nuclear Posture Review deliberations, we reaffirmed that the inability of a nuclear-armed adversary to distinguish between nuclear and conventionally-armed missiles is not destabilizing. Cruise missiles and dual-capable aircraft have existed for decades and have contributed to strategic stability.

Mr. SCOTT. Secretary Mattis and General Selva, in light of the changes in the National Defense Strategy (NDS) and the emphasis on Great Power competition, this Committee received testimony on January 30, 2018, on “Readying the U.S. Military for Future Warfare” which pointed to the over-dependency of the force on space, as a critical vulnerability.

Do you believe it is wise to double-down on the vulnerabilities of space versus the development of capabilities which can operate in the absence of connectivity with space?

Do you believe system redundancy is a necessity when facing the reality of a high-end war with a peer competitor?

General SELVA. The Department fully recognizes space as a contested domain, with our adversaries seeking to offset any of our space-derived advantages. As in other contested domains, we do not see the solution as an “either/or” problem. Rather, we believe we need to improve the survivability of our space systems while also exploring terrestrial alternatives that will best add the resiliency needed by the Joint Force. System redundancy does have a place in that solution set, to include expanded, lower-cost commercial spacelift. The solution is more about resilience, and to that end we are investing in capabilities (I can describe these at a higher level of classification) that cut across defensive operations, reconstitution, and resilience to provide space mission assurance.

Mr. SCOTT. Gentlemen, the rise of “mega-cities” including the build-up of urban areas in Asia, Africa, and Europe, increase the likelihood of future urban warfare. Do you foresee protracted warfare in urban and peri-urban areas as an inevitable conclusion and if so, what steps are being taken to prepare the Force?

General SELVA. Each of the big four (North Korea, Iran, Russia, China) contain large urban areas that would present a substantial military challenge to U.S. and partner nation forces. While fighting in a mega-city (population >10M) would represent a significant challenge, the impact of the migration of global populations into urban areas and the corresponding increase to the number and size of cities worldwide should not be underestimated. It is possible that we will find ourselves fighting in urban and peri-urban areas, and we must continue to prepare for military operations in urban settings. As an example, the Army is presently conducting several studies on dense urban environments that will examine current capabilities, required capabilities, and make recommendations across the doctrine, organization, training, materiel, leadership, personnel, facilities, and policy (DOTMLPF-P) domains to address urban operations.

The Services and USSOCOM train for urban operations from the individual level through maneuver unit up to brigade, inclusive of both ground forces as well as fixed and rotary wing assets in an Urban Close Air Support (CAS) supporting role.

The DOD has 66 ranges with urban operations training capabilities identified in the most recent range report with additional urban warfare training initiatives under consideration by a number of the Services. Training in replicated sub-sections of a megacity, as well as including electromagnetic warfare/spectrum challenges more effectively into all training, are two examples of urban warfare training initiatives being pursued.

QUESTIONS SUBMITTED BY MR. BROOKS

Mr. BROOKS. Please describe the changes made to the U.S. nuclear deterrent since the Cold War. The NPR states the U.S. has reduced our nuclear stockpile by over 85% since the height of the Cold War—how have our nuclear forces and capabilities changed?

a. What classes or types of weapons have we eliminated since the Cold War? How have foreign nuclear weapons programs changed?

b. Is the U.S. in a nuclear arms race with Russia? Please describe Russia's nuclear forces modernization program—comparing and contrasting it to ours.

Secretary MATTIS. Since the end of the Cold War, the United States has made significant reductions in nuclear forces eliminating approximately 85% of U.S. inventory at the height of the Cold War including capabilities such as short and medium range ballistic missiles, nuclear mines, and artillery delivered weapons.

Foreign nuclear programs have changed at different times for different reasons. The United Kingdom and France have retained their core nuclear capabilities consisting of submarine-based systems and dual capable fighter aircraft. China is modernizing and expanding its already considerable nuclear forces with little to no transparency into its intentions, and is pursuing entirely new nuclear capabilities tailored to achieve particular national security objectives. North Korea continues its illicit pursuit of nuclear weapons and missile capabilities. The United States is not in an arms race with Russia. Russia has expanded and modernized its strategic and non-strategic nuclear forces, including the addition of a number of novel systems as described by President Putin in March 2018. By comparison, the United States is recapitalizing systems at the end of their service life to maintain a credible Triad. The Nuclear Posture Review also identified two capabilities, a Low Yield Ballistic Missile and a Sea-Launched Cruise Missile, to strengthen deterrence against Russia's growing arsenal of theater-level nuclear weapons.

Mr. BROOKS. Please describe the changes made to the U.S. nuclear deterrent since the Cold War. The NPR states the U.S. has reduced our nuclear stockpile by over 85% since the height of the Cold War—how have our nuclear forces and capabilities changed?

a. What classes or types of weapons have we eliminated since the Cold War? How have foreign nuclear weapons programs changed?

b. Is the U.S. in a nuclear arms race with Russia? Please describe Russia's nuclear forces modernization program—comparing and contrasting it to ours.

General SELVA. In 1991, the United States had deployed 22 nuclear weapon types in the stockpile across three military services (see Table 1). Today the U.S. has seven weapon types in the stockpile, five of which are deployed by the Air Force, and two of which are deployed by the Navy. The Army and Marine Corps no longer field nuclear weapons.

Table 1

Warhead/Bomb	Service	Type	Disposition
B28	AF	Gravity bomb	Retired
W33	Army	8-inch AFAP	Retired
B41	AF	Gravity bomb	Retired
W48	Army	155-mm AFAP	Retired
W50	Army	Pershing I	Retired
W56	AF	Minuteman II	Retired

Table 1—Continued

Warhead/Bomb	Service	Type	Disposition
B57	AF, Navy	Depth charge	Retired
B61	AF	Gravity bomb	Active
W62	AF	Minuteman III	Retired
W68	Navy	Poseidon C3	Retired
W69	AF	SRAM	Retired
W70	Army	Lance SRBM	Retired
W71	Army	Spartan ABM	Retired
W76	Navy	Trident C4	Active
W78	AF	Minuteman III	Active
W79	Army	8-inch AFAP	Retired
W80	AF, Navy	ALCM/TLAM-N	Active/Retired
B83	AF	Gravity bomb	Active
W84	Army	GLCM	Retired
W85	Army	Pershing II	Retired
W87	AF	Minuteman III	Active
W88	Navy	Trident D5	Active

We are not in a nuclear arms race with Russia. However, we are cognizant of the significant ongoing changes in the nuclear forces of three key states of concern: Russia, China, and North Korea.

Since 2010, Russia has continued to prioritize nuclear forces modernization, resulting in increased warhead delivery capacity, and improved operational capability. Russia plans to continue this effort. In addition to modernizing “legacy” Soviet nuclear systems, Russia is developing and deploying new nuclear warheads and launchers across every leg—land, air, and sea—of its strategic nuclear triad. For example, Russia is developing at least three new intercontinental range systems, a hypersonic glide vehicle, and new intercontinental, nuclear-armed, nuclear-powered, undersea autonomous torpedo, and a nuclear-powered, nuclear-armed cruise missile. None of these systems is currently limited by New START. Russia is also modernizing and expanding its non-strategic nuclear forces and possesses significant advantage in its nuclear weapons production capacity.

The U.S. nuclear modernization program will also modernize each leg of the strategic nuclear triad. However, unlike Russia, the U.S. program will not introduce new kinds of intercontinental range nuclear systems. The U.S. modernization program also does not seek to quantitatively match Russia’s growing non-strategic nuclear weapons arsenal, as our strategy does not require us to do so. Finally, the U.S. program does not build new nuclear warheads. Instead, we life extend existing systems.

China continues to increase the size and capabilities of its nuclear forces. For example, China has developed a new road mobile strategic ICBM, a new multi-warhead version of a silo-based ICBM, and has armed its most advanced ballistic missile submarine with new Submarine Launched Ballistic Missiles. It has also deployed a nuclear-capable precision guided intermediate-range ballistic missile capable of attacking land and naval targets. Furthermore, it announced development of

a new nuclear-capable strategic bomber, which will give China a nuclear triad. In 1991, the United States had deployed 22 nuclear weapon types in the stockpile across three military services (see Table 1). Today the U.S. has seven weapon types in the stockpile, five of which are deployed by the Air Force, and two of which are deployed by the Navy. The Army and Marine Corps no longer field nuclear weapons.

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North Korea has accelerated its pursuit of nuclear weapons and missile capabilities, and made explicit threats to use nuclear weapons against the United States and its allies. In the past few years, North Korea has dramatically increased its missile flight testing, most recently including the testing of intercontinental-range missiles possibly capable of reaching the U.S. homeland. It has conducted six explosive nuclear tests since 2006, including a test of a significantly higher-yield device. It also continues to produce plutonium and highly-enriched uranium for nuclear weapons production.

While Iran has agreed to constraints on its nuclear program in the Joint Comprehensive Plan of Action (JCPOA), it retains the technological capability and much of the capacity necessary to develop a nuclear weapon within one year of a decision to do so. Further, absent extensive international actions many of the JCPOA’s restrictions on Iran’s nuclear program will end by 2031. Iran’s development of increasingly long-range ballistic missiles, combined with its aggressive strategy and activities to destabilize neighboring governments, raise questions about its long-term commitment to foregoing a nuclear weapons capability.

QUESTIONS SUBMITTED BY DR. WENSTRUP

Dr. WENSTRUP. How did developments in foreign nuclear weapon programs, or other strategic weapon capabilities, factor into the Nuclear Posture Review’s process and conclusions? Being specific but unclassified, what developments in foreign programs or actions of foreign nations concern you the most, and how does that factor into the NPR’s recommendations for U.S. nuclear posture?

Secretary MATTIS. The starting point for the Nuclear Posture Review (NPR) was an assessment of today’s strategic environment, including an examination of foreign nuclear weapon programs. As stated in the National Security Strategy, the National Defense Strategy, and the NPR, the return of great power competition and the growing importance of nuclear weapons in the security strategies of other nuclear powers were of significant concern. The NPR’s resulting conclusions and recommendations ensure that any potential adversary understands the unacceptable costs they would incur should they employ a nuclear weapon against the United States or our allies or partners.

Dr. WENSTRUP. Leaving aside the poor-descriptor of “non-strategic,” which really just means they aren’t captured by any sort of arms control agreement, what types of “non-strategic” nuclear weapons does Russia have? We’ve heard its something like 11 different types, including nuclear torpedoes, nuclear land-mines, nuclear-armed air defense missiles, and more. a. How many of these non-strategic nuclear weapons does Russia have? The unclassified estimates we’ve seen say several thousand. b. How many types and how many numbers of non-strategic nuclear weapons does the U.S. have? I understand it’s just the B61 gravity bomb and only a few hundred of them? c. Is this 10:1 imbalance significant? Does it impact deterrence or assurance?

Secretary MATTIS. In the unclassified context, the Defense Intelligence Agency estimates that Russia possesses approximately two thousand non-strategic nuclear weapons (NSNW) and the numbers are expanding. Russia has NSNW for close- and short-range ballistic missiles (0–500 km range); air-, ground-, and sea-launched cruise missiles; anti-submarine weapons including torpedoes, depth bombs and missiles; anti-ship missiles; gravity bombs and air-to-surface missiles delivered by aircraft; anti-aircraft missiles and anti-ballistic missiles. In contrast, the United States has one type of NSNW—the B61 gravity bomb delivered by dual-capable fighter aircraft.

The magnitude of the imbalance, when combined with Russian military doctrine and practice, is concerning. Although this NSNW imbalance is less meaningful for deterring direct attack on the U.S. homeland, it is significant for extended deterrence and assurance of allies and partners. Russian investment in these weapons and its behavior during exercises indicate that it believes it can leverage these weapons to coerce the United States and our allies and partners.

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General SELVA. From the outset, the Nuclear Posture Review working group worked closely with the Intelligence Community conducting a month’s long deep dive into the latest assessments of foreign nuclear weapon programs. Based on this review, the working group noted the rapid deterioration of the threat environment since the 2010 NPR despite U.S. efforts to reduce the role and number of nuclear weapons. Our potential adversaries did not follow our lead. Rather, Russia, China, and North Korea continued their efforts to expand and modernize their nuclear forces, and other advanced military capabilities. Of particular concern is the combination of Russia’s nuclear strategy, doctrine, and non-strategic nuclear capabilities. The NPR concluded that we need to take steps to reduce Russia’s confidence in their strategy to initiate limited nuclear use to coerce the U.S. and NATO, and recommended two additions to the existing nuclear modernization program to do so: (1) a limited number of low-yield SLBM warheads in the near-term, and (2) pursuit of a low-yield capable, nuclear-armed SLCM.

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General SELVA. [The information referred to is classified and retained in the committee files.]

QUESTIONS SUBMITTED BY MR. KNIGHT

Mr. KNIGHT. The Nuclear Posture Review makes clear that our nuclear forces need to both deter potential adversaries and assure our allies. Were our allies consulted as the NPR was being considered and drafted? What did they say or recommend? When the Obama administration eliminated the sea-launched cruise missile in the 2010 NPR, Japan in particular was concerned. Has Japan or any of our other allies expressed support from bringing this cruise missile capability back? How does the ability to signal strategic intent with our nuclear bombers, including the B-2 today and the B-21 in the near-future, contribute to assurance of allies? In particular, how are our allies reacting to the proposal to continue the Obama administration’s program of record and add two supplemental capabilities?

Secretary MATTIS. Throughout the Nuclear Posture Review, we consulted extensively with allies and partners. They were unanimous in the view that the security environment has changed for the worse since 2010; offered a range of opinions on the environment and the continued need for nuclear deterrence; and appreciated our efforts to consult with them. Our East Asian allies in particular appreciated the reaffirmation of U.S. extended deterrence commitments. In Europe, reactions were positive, particularly our moves to strengthen deterrence, reaffirm our declaratory policy, and further the goals of the Treaty on Non-Proliferation of Nuclear Weapons. A number of European allies emphasized the importance of balancing deterrence with arms control and non-proliferation initiatives. Reactions to continuation of the U.S. nuclear modernization program were generally positive. No European allies objected to the inclusion of the supplemental capabilities. Strategic nuclear bombers, as well as dual-capable aircraft, both of which can be forward-deployed, provide a visible display of U.S. capabilities and resolve, providing effective signaling for deterrence and assurance, especially in times of tension. Many viewed these supplemental capabilities as an appropriate counter-balance to Russian, Chinese and North Korean developments, while some did express reservations over possible Russian and Chinese reactions.

QUESTIONS SUBMITTED BY MR. DesJARLAIS

Mr. DESJARLAIS. What does the NPR recommend to finally get on top of the massive and complex challenge of NC3 modernization? What steps are being proposed to get after NNSA's \$4 billion backlog of infrastructure problems and deferred maintenance? How will we ensure we take care of the unsung heroes of national defense in DOD and NNSA that operate, support, and provide our nuclear deterrent?

Secretary MATTIS. The Nuclear Command, Control and Communication (NC3) system is subject to challenges from both aging system components and new threats, in particular space and cyber-space, adversary strategies of limited nuclear escalation, and a diffusion of authority and responsibility. The Administration is pursuing a series of steps to strengthen NC3, including: 1) improving protection against space-based and cyber threats; 2) enhancing integrated tactical warning and attack assessment; 3) improving command post and communication links; 4) advancing decision support technology; and 5) integrating planning and operations. The Nuclear Posture Review (NPR) directs the Chairman of the Joint Chiefs of Staff to deliver to me by 1 May a plan to reform NC3 governance.

There is no margin for further delay in recapitalizing the physical infrastructure needed to produce strategic materials and components for U.S. nuclear weapons. Just as our nuclear forces are an affordable priority, so is a resilient and effective nuclear weapons infrastructure. The NPR lays out several specific initiatives that National Nuclear Security Agency will pursue and fund in its budget requests, and implementation of these efforts is ongoing. The personnel who maintain our nuclear deterrent are true professionals; I am committed to ensuring they have the tools needed to execute their mission.

Mr. DESJARLAIS. What would be the consequences, risks, or benefits of delaying or cancelling certain modernization programs—such as the GBSD land-based missile, the B-21 bomber, the long-range standoff (LRSO) cruise missile, or the COLUMBIA-class submarine? How firm is the need for the current schedules for these programs—or is there room for slipping their schedules?

General SELVA. Any delay or cancellation of these programs would severely limit the capability and capacity of the Joint Force to meet the objectives of the Nuclear Posture Review. Delays would require service life extensions to legacy systems, and in cases such as the OHIO class submarine, the service life cannot be extended. If any of these programs are delayed or cancelled, our nuclear deterrence would be severely degraded.

QUESTIONS SUBMITTED BY DR. ABRAHAM

Dr. ABRAHAM. Secretary Mattis, your Nuclear Posture Review (NPR) mentions the importance of refurbishing the infrastructure that supports our nuclear deterrent, both at DOD bases and across the NNSA enterprise. Several of the Air Force facilities that desperately need recapitalization are the Weapons Storage Facility at our strategic bomber bases, including Barksdale Air Force base. When you say nuclear deterrence is our number one priority mission and we need to recapitalize our force, do you include this type of infrastructure in that prioritization?

Secretary MATTIS. Yes. The Nuclear Posture Review commits the United States to a safe, secure and effective nuclear posture through a program to modernize and

recapitalize the Triad and supporting infrastructure, including National Nuclear Security Administration infrastructure.

QUESTIONS SUBMITTED BY MR. GALLAGHER

Mr. GALLAGHER. In recent years, there have been press reports of a number of joint ventures between U.S. companies and Chinese companies on Chinese soil that involve the transfer of U.S. technology to the detriment of the warfighter. These transactions appear to be designed to both evade CFIUS and game the export control system. What is your view on these types of transactions?

Secretary MATTIS. I am concerned about China's attempts to increase its military capabilities by gaining access to sensitive U.S. technologies and know how, both directly within the United States and through our allies and partners. China uses a range of acquisition methods, both legal and illegal, in a comprehensive approach that tests the gaps and seams in U.S. protection measures. For example, when a Chinese company failed in successive attempts to secure export licenses to access a U.S. company's equipment and technology, the Chinese sought to circumvent U.S. exports controls by instead attempting to acquire the company itself.

Furthermore, increasingly globalized science and technology means that attempts to obtain U.S. technologies do not stop at U.S. borders. A Chinese entity recently made an attempt to acquire a German company with U.S. subsidiaries developing cutting-edge semiconductor technologies. The Committee on Foreign Investment in the United States (CFIUS) conducted an investigation and ultimately the parties abandoned the acquisition and immediately entered into a joint venture, a structure that is currently outside CFIUS's jurisdiction.

We must ensure that both the CFIUS review and the export control processes effectively address the complexities of today's globalized and dual-use science and technology environment. The Foreign Investment Risk Review Modernization Act of 2017 (FIRRMA) legislation proposed by Senator Cornyn would enhance the available processes to protect our military technological advantage and national security interests by expanding the scope of covered transactions, including to joint ventures. Our export control licensing processes and authorities should be similarly enhanced to complement any change to the CFIUS process, including to protect emerging technologies, in order to ensure that the U.S. Government response is sufficiently effective and comprehensive in addressing this multi-vectored threat in a world characterized by rapidly evolving science and technology.

We must take a comprehensive whole-of-government approach to securing our sensitive technologies, with a range of robust and agile authorities employed in concert to prevent transfers to China and other countries that use similar methods to exploit our technology. Both the methods of exploitation and the potential national security implications are many and varied. The approach to securing American technology must be similarly comprehensive.

QUESTIONS SUBMITTED BY MR. BACON

Mr. BACON. Nuclear Command, Control & Communications (NC3). A recent review by the House Armed Services Committee staff shows at least 35 different organizations claim to have responsibility for NC3: 9 separate organizations establish policy; 18 identify threats and gaps; 12 establish requirements; 9 advocate capabilities; 20 organizations acquire and sustain systems; 15 organizations plan and conduct operations. Most concerning, it appears that 31 organizations provide oversight.

Questions: 1. Who is in charge of the NC3 enterprise in the Department of Defense?; 2. Do you believe organizational reforms are necessary to ensure clear responsibility and accountability for the readiness and effectiveness of our NC3 enterprise? If yes, what changes would you recommend?; 3. What are your priorities for NC3 modernization?; 4. Do you believe it is prudent to revisit our airborne NC3 posture? If yes, what would the Department require to resume a sustained NC3 airborne alert?

Secretary MATTIS. The Nuclear Posture Review directs the Chairman of the Joint Chiefs of Staff to deliver a plan to me no later than May 1, 2018 to reform Nuclear Command, Control and Communication (NC3) governance to ensure its modernization and effective functioning against current and future environments. In addition to NC3 governance reform, the Administration will pursue a series of initiatives to strengthen NC3, including: 1) strengthening protection against space-based and cyber threats; 2) enhancing integrated tactical warning and attack assessment; 3) improving command post and communication links; 4) advancing decision support

technology; and 5) integrating planning and operations. Airborne NC3 capabilities are key to the overall survivability of the NC3 system; their modernization and sustainment are well-warranted.

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General SELVA. 1. *Who is in charge of the NC3 enterprise in the Department of Defense?* A: In accordance with Presidential Policy Directive 35, the Secretary of Defense is in charge of the Nuclear Command and Control Communications (NC3) enterprise for the DOD. The Council on Oversight on the National Leadership Command, Control, and Communications System (CONLC3S) is responsible for oversight of the command, control, and communications system for the national leadership of the United States and provides oversight of the NC3 enterprise.

2. *Do you believe organizational reforms are necessary to ensure clear responsibility and accountability for the readiness and effectiveness of our NC3 enterprise?* A: The 2017 Nuclear Posture Review (NPR) tasked the Chairman of the Joint Chiefs of Staff to provide a plan to the Secretary of Defense for improving and reforming governance of the overall NC3 System no later than 1 May 2018.

2a. *If yes, what changes would you recommend?* A: In response to the NPR task, the Joint Staff is leading an effort to identify what, if any, changes to existing roles, responsibilities, and authorities would be required to improve and reform governance of the overall NC3 system.

3. *What are your priorities for NC3 modernization?* A: The NC3 enterprise is a complex system of systems, each part of which contributes to its overall effectiveness. The Joint Staff is leading an effort to ensure the Department is able to make risk-informed, prioritized investment decisions within the NC3 enterprise.

4. *Do you believe it is prudent to revisit our airborne NC3 posture?* A: The Department continually assesses the posture of the entire U.S. nuclear enterprise within the context of evolving threats and emerging capabilities. As part of that effort, the Department is exploring revised concepts of operation that include sustained NC3 airborne alert, but no decisions have been made to date.

QUESTIONS SUBMITTED BY MR. HICE

Mr. HICE. The Nuclear Posture Review (NPR) recommends deploying a low-yield submarine-launched ballistic missile (SLBM) on our submarines in order to better deter Russia. Some have argued that deploying such a low-yield warhead alongside our higher-yield SLBMs will lead to instability in a crisis, an adversary mistaking a low-yield for a high-yield warhead, or even that the submarine would be vulnerable to counterattack if it only launches a single low-yield missile. Do you put any credence into those arguments?

Secretary MATTIS. No. Deploying a low-yield variant of the submarine-launched ballistic missile (SLBM) will increase stability, particularly in crisis, by demonstrating to an adversary that the United States has the ability to respond to any level of nuclear use. This reduces an adversary's incentive to use nuclear weapons in the first place. Adversary discrimination is not a critical concern. There is little to suggest that an adversary would view a single ballistic missile launch—regardless of the weapon's yield—as an all-out attack leading to a response in kind. In addition, the NPR examined the risks of launching a single or small number of low-yield SLBMs from a single nuclear-powered submarine and determined the risks to the ship are minimal.

Mr. HICE. Do you believe the relationship between DOD and NNSA is working? Are NNSA and DOE appropriately focused on their number one mission of delivering nuclear weapons to the military? NNSA's contracting structure with its labs and plants is very focused on operational minutiae and cost savings, and mission deliverables to the military often seem like an afterthought.

Secretary MATTIS. The Department of Defense (DOD) and Department of Energy's National Nuclear Security Administration (NNSA) are both committed to modernizing and recapitalizing all aspects of the U.S. deterrent. DOD looks forward to working with the new NNSA Administrator, Ms. Gordon-Hagerty, and endorses her recent remarks reinforcing that DOD is NNSA's primary customer.

QUESTIONS SUBMITTED BY MR. LARSEN

Mr. LARSEN. Is reducing the role of nuclear weapons in conflict a goal of this administration? If so, what new actions will be taken to reduce the role of nuclear weapons?

Secretary MATTIS. As stated in the Nuclear Posture Review, the Administration has made clear its long-term goal of eliminating nuclear weapons coupled with the requirement that the United States have modern, flexible and resilient nuclear capabilities until such a time as nuclear weapons can prudently be eliminated from the world.

Mr. LARSEN. The NPR makes clear that a portion of the ICBM forces are in an alert status that would allow prompt launch in order to prevent their destruction in a "surprise first strike." Yet the NPR criticizes the use of the term "hair-trigger alert." Would "launch on alert" be a correct description of the alert status of these weapons, and what is the decision making process and timeline for their launch?

Secretary MATTIS. "Launch on alert" is not a correct description of the alert status of the Intercontinental Ballistic Missile (ICBM) force. The United States maintains a portion of its nuclear forces on alert day-to-day, and retains the option of launching those forces promptly. This posture maximizes decision time and preserves the range of U.S. response options. Forces on day-to-day alert are subject to multiple layers of control, ensuring clear civilian and Presidential decision-making. Over more than half a century, the U.S. has established a series of measures and protocols to ensure that ICBMs are safe, secure, and under constant control. Any U.S. decision to employ nuclear weapons would follow a deliberative process.

Mr. LARSEN. Does the ability to deliver a proportional nuclear response enhance deterrence? Should proportionality be directly related to the explosive yield of a nuclear weapon? How long would it take the United States to ascertain the yield of a nuclear weapon used against the U.S. or an ally? How long would it take an adversary to make a similar calculation regarding a weapon used against its territory?

Secretary MATTIS. Effective nuclear deterrence is about ensuring potential adversaries do not miscalculate regarding the consequences of any nuclear employment. As described in the Nuclear Posture Review, the United States will apply a tailored approach supported by flexible capabilities to effectively deter across a spectrum of adversaries, threats, and contexts. In support of this, the United States will now pursue select low-yield supplements that will enhance deterrence by denying potential adversaries any mistaken confidence that limited nuclear employment can provide a useful advantage over the United States and its allies.

The U.S. nuclear detection system is able to promptly determine the yield of a nuclear detonation. Depending on the adversary, it could take a similar timeframe to make a similar determination.

Mr. LARSEN. How would deploying sea-launched nuclear cruise missiles change operations, security, personnel and training requirements for the Navy? What are the costs expected to be and how would this requirement impact existing Navy missions and operations?

General SELVA. We do not yet know how nuclear-armed SLCM deployment will affect Navy operations, security, personnel, and training requirements, as we have not yet developed the concept of operations for this system, nor have we identified a specific technical solution. The Navy will evaluate any required changes to operations, security, personnel and training requirements as it implements the Nuclear Posture Review direction for pursuing a sea launched cruise missile (SLCM) capability. This effort will include conducting an Analysis of Alternatives which will refine the costs associated with any proposed SLCM options.

QUESTIONS SUBMITTED BY MS. SPEIER

Ms. SPEIER. The B83 is the last megaton-range weapon in the U.S. nuclear stockpile, with a maximum yield about 75 times larger than the bomb used against Hiroshima. While the B83 was set to be retired, the Nuclear Posture Review sustains the weapon indefinitely. Why did the Administration postpone the B83's retirement? What deterrence requirements are met by retaining this weapon?

Secretary MATTIS. The 2018 Nuclear Posture Review reiterates the prior Administration's commitment to retain the B83-1 in the stockpile until there is sufficient confidence in the B61-12 gravity bomb. Given the changed threat environment, deterrence requirements to hold a variety of protected targets at risk, and the unique capabilities of the B83-1 bomb to fulfill those requirements, the Administration decided to postpone B83-1 retirement until a suitable replacement is identified.

Ms. SPEIER. The Nuclear Posture Review indicates that the United States could return to explosive nuclear testing if "geopolitical challenges" occur. Please cite examples of geopolitical challenges that could precipitate a return to explosive nuclear testing.

Secretary MATTIS. The Nuclear Posture Review (NPR) reiterates U.S. policy to continue observing the nuclear test moratorium that began in 1992. The NPR recognizes, however, that global threat conditions have worsened markedly since 2010, and that the United States must remain ready to resume nuclear testing if necessary to meet severe technological or geopolitical challenges. Examples of geopolitical challenges could include the emergence of new adversaries, expansion of adversary nuclear forces, changes in adversary strategy and doctrine, new alignments among adversaries, and the further proliferation of nuclear weapons.

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General SELVA. [The information referred to is classified and retained in the committee files.]

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General SELVA. The Nuclear Posture Review (NPR) explicitly identified the capacity to hedge against an uncertain future security environment as a role of nuclear weapons in U.S. national security strategy. This role is a recognition that the future security environment is unknowable, and that it can change rapidly, as it did since the 2010 NPR. A geopolitical challenge could emerge that would require the United States to develop nuclear weapons with new military capabilities that could only be achieved with confidence through explosive testing. Due the uncertainty noted above, I cannot tell you today what that challenge might be, but it would be prudent to be prepared to address such a challenge.

QUESTIONS SUBMITTED BY MR. GALLEGO

Mr. GALLEGO. The Nuclear Posture Review mentions that the United States would consider using nuclear weapons in response to non-nuclear attacks that have strategic effects. Can you provide more detail under what scenarios the United States would consider use of nuclear weapons in a scenario that has stayed non-nuclear to that point?

Secretary MATTIS. The United States will only consider the use of nuclear weapons in extreme circumstances to defend the vital interests of the United States, its allies, and partners. The Nuclear Posture Review provides examples of "extreme circumstances," which could include significant non-nuclear strategic attacks. Significant non-nuclear strategic attacks include, but are not limited to, attacks on the U.S., allied, or partner civilian population or infrastructure, and attacks on U.S. or allied nuclear forces, their command and control, or warning and attack assessment capabilities. That said, there is nothing automatic about a United States nuclear response. Our response to aggression will be with a means and at a time of our choosing.

Mr. GALLEGO. In which arenas and against which nuclear-armed foes are we expecting to possibly use nuclear weapons to deter or turn back non-nuclear attacks?

Secretary MATTIS. The United States will not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the Treaty on Non-Proliferation of Nuclear Weapons and in compliance with their nuclear non-proliferation obligations under the Treaty. The United States is pursuing a tailored deterrence strategy, supported by flexible capabilities designed to deter a range of adversaries across a diverse set of potential contingencies. The Nuclear Posture Review describes tailored strategies for Russia, China, North Korea, and Iran.

Mr. GALLEGO. Under a Great Power Competition model, our allies and strategic partners may have to shift their priorities and actions as well. Competition with

states can be expensive, especially for our smaller allies and partners in Europe and Asia, many of which have invested heavily in boutique counterinsurgency capabilities—often at our request—since 2001. How should allied and partner states—many of which cannot afford to make wholesale, rapid changes to their capital acquisition schedules and force size—fit into this strategy? Can we expect and rely on them to both fight with us in Coalitions against terrorists and be a bulwark against a large, nuclear-armed state?

Secretary MATTIS. The National Defense Strategy directs the Department of Defense to strengthen and evolve our alliances and partnerships to meet shared challenges. We expect allies and partners to contribute their fair share to security. Each ally and partner is unique. The Department of Defense is consulting with each ally and partner on how it can contribute to addressing shared challenges. Some allies and partners are postured to contribute to fighting terrorists and deterring threats from states. Others will have capabilities that incline them more toward one of those objectives. The overall constellation of allies and partners will provide the potential to build coalitions to meet a range of future challenges.

Mr. GALLEGO. Great power competition can, of course, lead to great power war, which holds the potential for much higher servicemember- and civilian casualties than the wars we have fought since Vietnam. Many in Congress know and understand this, especially on the Armed Services Committees, but Americans in general may not. What is the Department and wider Administration doing to ensure that the the American People are ready, willing, and able to pay the potentially massive human costs of modern state-on-state conflict?

Secretary MATTIS. The greatest deterrence to war is for the enemy to be overmatched in all aspects and forms of warfare. My goal is to build such a lethal military that it will enhance our diplomatic persuasiveness. And we build such a Force of deterrence by successfully implementing and resourcing the Department's strategy. Directly inspired by the President's National Security Strategy, the Department developed the National Defense Strategy (NDS) that clearly articulates a strategic approach to deter aggression in critical theaters and, should deterrence fail, prevail in protracted war with any great power adversary. This approach encompasses three lines of effort: (1) build a more lethal force; (2) strengthen alliances and attract new partners; and (3) reform the Department for greater performance and affordability. Proper resourcing of the strategy not only calls for stable and predictable budgets, but also prioritizing mission-critical operations and programs that most directly contribute to the success of the strategy.

As part of building this lethal force, we are also prioritizing medical and family readiness programs that allow our Service members to be fully deployable and provide support for their loved ones, whether the Service members are at home base or abroad. With this in mind, the Department aims to make the best possible use of its resources to give the strategy the best possible chance to succeed in both peacetime and in wartime.

Mr. GALLEGO. Under a Great Power Competition model, our allies and strategic partners may have to shift their priorities and actions as well. Competition with states can be expensive, especially for our smaller allies and partners in Europe and Asia, many of which have invested heavily in boutique counterinsurgency capabilities—often at our request—since 2001. How should allied and partner states—many of which cannot afford to make wholesale, rapid changes to their capital acquisition schedules and force size—fit into this strategy? Can we expect and rely on them to both fight with us in Coalitions against terrorists and be a bulwark against a large, nuclear-armed state?

General SELVA. Allies and partners have made significant investments in counterinsurgency capabilities, but many have also advanced their capability and capacity to support major combat operations. We must continue to assure allies and partners while maintaining the ability to deter potential adversaries. We see that some potential adversaries continue to operate below the threshold that would drive a traditional military response. In this area, counterinsurgency capabilities will likely be the best response. In contested areas of the competition space, counterinsurgency is a viable mission that could provide a competitive advantage in an allied or coalition undertaking.

Mr. GALLEGO. Great power competition can, of course, lead to great power war, which holds the potential for much higher servicemember- and civilian casualties than the wars we have fought since Vietnam. Many in Congress know and understand this, especially on the Armed Services Committees, but Americans in general may not. What is the Department doing to ensure that the Force and military families are ready, willing, and able to pay the potentially massive human costs of modern state-on-state conflict?

General SELVA. The department does not prepare, per se, our Service Members and their families to be ready, willing, and able to pay massive human costs of state-on-state conflict. We prepare our Service Members and their families to mobilize, deploy, fight, WIN, redeploy, and reintegrate. That being said,—DOD and Joint Force senior leaders routinely engage with external audiences, including the press, as well as with military members and their families in an effort to keep them informed about today's strategic security environment. Those discussions often include frank conversations about how a high-end war against a great-power adversary would result in catastrophic impacts to all involved. As Secretary Mattis has consistently maintained, diplomacy remains the priority effort in the current environment of great power competition, but the Joint Force is working hard to restore readiness to ensure the military is prepared to respond to any contingency.—Services have Service Member and Family Readiness programs. Current resiliency programs and Family Readiness best practices prove to be effective, and will prove useful should there be an high-end conflict.—The department is also prepared with contingency plan for recovery, removal and next-of-kin notification for mass casualties.

QUESTIONS SUBMITTED BY MS. ROSEN

Ms. ROSEN. If we are indeed abiding by the 1992 nuclear test moratorium and are not conducting explosive nuclear testing, why won't the Administration push for ratification of the Comprehensive Test Ban Treaty?

Secretary MATTIS. The United States will not seek Senate ratification of the Comprehensive Nuclear Test Ban Treaty, but will continue to observe the nuclear test moratorium that began in 1992. This approach is needed because America confronts an international security situation that is more complex and demanding than any since the end of the Cold War and must remain ready to resume nuclear testing if necessary to meet severe technological or geopolitical challenges that may emerge.

Ms. ROSEN. In what ways could the expanded scenarios in the Nuclear Posture Review allowing for the use of nuclear weapons against NON-nuclear threats—including cyber threats—increase the likelihood of a nuclear exchange between the United States and North Korea?

Secretary MATTIS. The United States will only consider the use of nuclear weapons in extreme circumstances to defend the vital interests of the United States, its allies, and partners. The Nuclear Posture Review (NPR) provides examples of "extreme circumstances," which could include significant non-nuclear strategic attacks. Significant non-nuclear strategic attacks include, but are not limited to, attacks on the U.S., allied, or partner civilian population or infrastructure, and attacks on U.S. or allied nuclear forces, their command and control, or warning and attack assessment capabilities. Although the NPR discusses the need for a tailored strategy vis-a-vis North Korea, this strategy does not lower the threshold for consideration of U.S. nuclear use.

Ms. ROSEN. The Nuclear Posture Review states that "geopolitical challenges" could lead to a possible return to explosive nuclear testing. What challenges might necessitate a return to explosive testing, either below ground or above ground?

Secretary MATTIS. The Nuclear Posture Review (NPR) reiterates U.S. policy to continue observing the nuclear test moratorium that began in 1992. The NPR recognizes, however, that global threat conditions have worsened markedly since 2010, and that the United States must remain ready to resume nuclear testing if necessary to meet severe technological or geopolitical challenges. Examples of geopolitical challenges could include the emergence of new adversaries, expansion of adversary nuclear forces, changes in adversary strategy and doctrine, new alignments among adversaries, and the further proliferation of nuclear weapons. The NPR directs the National Nuclear Security Administration to maintain the capability to resume underground nuclear explosive testing if called upon to do so. It contains no requirement for an above-ground nuclear explosive test capability.