

Stenographic Transcript
Before the

COMMITTEE ON
ARMED SERVICES

UNITED STATES SENATE

TO RECEIVE TESTIMONY ON UNITED STATES STRATEGIC
COMMAND AND UNITED STATES NORTHERN COMMAND IN
REVIEW OF THE DEFENSE AUTHORIZATION REQUEST FOR
FISCAL YEAR 2020 AND THE FUTURE YEARS DEFENSE
PROGRAM

Thursday, February 26, 2019

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1 HEARING TO RECEIVE TESTIMONY ON
2 UNITED STATES STRATEGIC COMMAND AND
3 UNITED STATES NORTHERN COMMAND
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6 THE FUTURE YEARS DEFENSE PROGRAM

7
8 Tuesday, February 26, 2019

9
10 U.S. Senate
11 Committee on Armed Services
12 Washington, D.C.
13

14 The committee met, pursuant to notice, at 9:29 a.m. in
15 Room SH-216, Hart Senate Office Building, Hon. James M.
16 Inhofe, chairman of the committee, presiding.

17 Committee Members Present: Senators Inhofe
18 [presiding], Wicker, Fischer, Cotton, Rounds, Ernst, Tillis,
19 Sullivan, Perdue, Cramer, McSally, Scott, Blackburn, Hawley,
20 Reed, Shaheen, Gillibrand, Blumenthal, Hirono, Kaine, King,
21 Heinrich, Warren, Peters, Manchin, Duckworth, and Jones.

1 OPENING STATEMENT OF HON. JAMES M. INHOFE, U.S.
2 SENATOR FROM OKLAHOMA

3 Chairman Inhofe: Our meeting will come to order.
4 The meeting today is going to receive testimonies from two
5 great guys, and it is a really good timing for this event to
6 take place. And they are General John Hyten, Commander of
7 the USSTRATCOM, and General Terry O'Shaughnessy, Commander
8 of NORTHCOM.

9 This committee's top priority is to support the
10 effective implementation of the National Defense Strategy.
11 The NDS Commission, which we have had a hearing on already
12 -- I think it leads us in the right direction. It is a
13 blueprint that we are using in this commission. They made
14 it clear that maintaining and modernizing the nuclear
15 deterrent is required. While we ignored the nuclear weapons
16 after the Cold War ended, Russia and China have focused on
17 more and more nuclear programs. We, I guess, assumed that
18 they were not doing anything because we were not doing
19 anything at that time. Nonetheless, we have fallen behind.

20 Now we need to modernize all three legs with the
21 nuclear triad, as well as the warheads and infrastructure in
22 the Department of Energy. We have some questions about that
23 because there is a lot of comments around negating the
24 necessity of the nuclearization modernization that we feel
25 is necessary.

1 The President and the Department of Defense have also
2 rightly identified space as a warfighting domain that is
3 growing more important every day.

4 General Hyten, you are a career space professional and
5 your current command both directs and relies upon many space
6 systems every day. I look forward to hearing your views on
7 establishing the U.S. Space Command as a full combatant
8 command and also your thoughts on the new space force. We
9 had a chance to visit in my office, and I appreciate it.
10 And I have heard that you visited others too. It is kind of
11 a confusing thing when you talk about a space force and you
12 talk also about the combatant command and where the two are
13 similar. So I have some questions along that line.

14 General O'Shaughnessy, you have operational
15 responsibility for the defense of the United States
16 homeland. What an awesome responsibility that is. The
17 Missile Defense Review recently enumerated a number of
18 challenges to U.S. missile defenses, including cruise and
19 hypersonic missiles. I am interested in your views on the
20 most pressing priorities in the missile defense arena, as
21 well as what we should be doing to address them.

22 Lastly, General O'Shaughnessy, I am eager to hear your
23 assessment of the ongoing southern border deployment and how
24 that might be affecting our readiness. Some interpretations
25 of what is happening down there say that that could actually

1 improve our readiness. So I am anxious to hear your views
2 on that.

3 Senator Reed?

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1 STATEMENT OF HON. JACK REED, U.S. SENATOR FROM RHODE
2 ISLAND

3 Senator Reed: Well, thank you very much, Mr. Chairman.

4 I want to join you in welcoming our witnesses, General
5 Hyten and General O'Shaughnessy. We thank you and your
6 families and the many men and women who serve with you to
7 serve the nation and protect the nation. So thank you very
8 much.

9 General Hyten, first and foremost, we would like to
10 hear from you about the administration's decision to
11 withdraw from the Intermediate-Range Nuclear Forces Treaty
12 with nothing to replace it. I understand that Russia was in
13 noncompliance and that China also poses a threat, but I
14 believe a better path would have been to continue to
15 pressure Russia back into compliance and ask modifications
16 to the treaty, if necessary.

17 Treaties are a major component of our security
18 strategy. We build and modernize nuclear weapons, but we
19 also have treaties which prescribe numbers and use.
20 Withdrawing from this treaty puts the extension of New START
21 in 2021 on very shaky ground. I am interested in your views
22 on this matter.

23 The second issue I am concerned about is Russia's
24 successful launch of the long-range hypersonic weapon, which
25 I understand will be nuclear-capable. China also has a

1 multitude of similar systems although not long-range like
2 those of Russia. I am interested in hearing your thoughts
3 on the capabilities of our near-peer competition and what we
4 need to do to counter these capabilities.

5 The third issue I would like you to address is the
6 administration's space force proposal. I understand the
7 importance of space and the need for additional focus and
8 resources for that effort. I am also supportive of creating
9 a full unified command for space. However, I remain dubious
10 of the need to create an entire new bureaucracy of a
11 separate service and all that entails. I think it is
12 inevitable that such a creation will distract rather than
13 provide focus to the critical mission of space. I know you
14 have studied this issue closely, and I am interested in your
15 views on the pros and cons of this proposal.

16 Finally, General Hyten, you are also responsible for
17 the synchronization of global missile defense plans and
18 operations. I would like to hear your thoughts about the
19 recently released Missile Defense Review and the
20 Department's plans for our current missile defense systems
21 and how to address future threats.

22 General O'Shaughnessy, your mission is to protect the
23 homeland, to deter and defeat attacks on the United States
24 and to support civil authorities in mitigating the effects
25 of attacks and natural disasters. We saw this demonstrated

1 in DOD's support to the States and territories affected by
2 hurricanes and wildfires this past year, and we thank you
3 and your command for your significant efforts.

4 You are also dual-hatted as the Commander of the North
5 American Aerospace Defense Command, NORAD, which brings
6 unique responsibilities and partnering opportunities with
7 Canada to deter and defend against advancing threats to our
8 nations.

9 You are also responsible for the operation of our
10 homeland ballistic missile defense system. We look forward
11 to hearing about your priorities for further improvements to
12 the ground-based missile defense system in the context of
13 the Missile Defense Review. This is particularly important
14 in light of the threat from North Korea and potentially
15 Iran.

16 Lastly, at a time when the National Defense Strategy
17 and our intelligence community's annual worldwide threat
18 assessment are stressing the absolute necessity of using
19 scarce resources to meet the challenge of near-peer
20 adversaries like Russia and China, the administration is
21 committing significant DOD resources and attention to what
22 the President has taken to calling a national emergency at
23 our southern border. In fact, nowhere in these two
24 documents I have referenced, the National Defense Strategy
25 particularly, are migrant caravans or drug traffickers

1 crossing our southern border mentioned as threats to our
2 national security. Russia, China, cybersecurity, and a host
3 of other items are in those documents, but nowhere is there
4 a finding that calls for 4,000 active duty troops to be
5 deployed to the southern border. For comparison's sake, we
6 have approximately 5,000 troops deployed in Iraq. I have
7 yet to hear from a witness before this committee who has not
8 stressed the real threats we face and the need to restore
9 readiness and provide modern facilities for our troops and
10 their families. Instead, DOD is planning to reallocate
11 funding that has been authorized and appropriated for
12 installation commanders' top priorities in support of a wall
13 that has no connection to a military threat and does not
14 support military effectiveness.

15 I will also add that is the responsibility of the
16 Department of Homeland Security and Customs and Border
17 Protection, not DOD, to patrol and enforce our borders. If
18 this administration is serious about dealing with the drug
19 epidemic in our nation, then it should properly fund these
20 federal agencies and other associated federal agencies.

21 General Hyten and General O'Shaughnessy, again thank
22 you for your service, and please pass our regards on to the
23 men and women that you lead. Thank you.

24 Chairman Inhofe: Thank you, Senator Reed.

25 Well, General Hyten, we will start with you and then go

1 to General O'Shaughnessy. Try to keep your statements in
2 the realm of 5 minutes. Your entire statement will be made
3 a part of the record. We will start with you, General
4 Hyten.

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1 STATEMENT OF GENERAL JOHN E. HYTEN, USAF, COMMANDER,
2 UNITED STATES STRATEGIC COMMAND

3 General Hyten: Thank you very much. Chairman Inhofe,
4 Ranking Member Reed, distinguished committee members, good
5 morning. It is an honor to be here today alongside my
6 friend, General O'Shaughnessy, and a continuing privilege to
7 represent the 162,000 Americans accomplishing the missions
8 of U.S. Strategic Command each and every day.

9 This is my third year appearing before this committee
10 as the STRATCOM Commander, and I appreciated the
11 opportunities to meet with many of you one on one and to
12 testify before you. So I want to begin by thanking this
13 committee for your enduring support to our national defense.

14 The last time I testified before the committee, we had
15 begun our 10th consecutive year under a continuing
16 resolution. Not this year, thanks to your leadership. I
17 cannot overstate the importance of an on-time budget. The
18 stability afforded with an on-time budget this year came at
19 a critical time for us and had a positive impact on our
20 modernization efforts and our overall force readiness.

21 STRATCOM is a global warfighting command, and as part
22 of the joint force, we are responsible for strategic
23 deterrence, nuclear operations, global strike, space
24 operations, joint electromagnetic spectrum operations,
25 missile defense, and joint analysis and targeting. That is

1 a big portfolio. To execute our assigned missions, the
2 soldiers, sailors, airmen, and marines and civilians of my
3 command operate globally across land, sea, air, space, and
4 cyber. Our forces and the strategic deterrence they provide
5 underpin and enable all joint force operations and are the
6 ultimate guarantors of our national and allied security.

7 So the most important message I want to deliver today
8 is that I am fully confident in our ability to preserve the
9 peace and decisively respond in any conflict. We are ready
10 for all threats that exist on the planet today, and no one
11 should doubt this.

12 Strategic deterrence is an active mission. It is not a
13 passive mission. It is dynamic. Our capabilities must
14 continue to evolve as the global threat environment changes
15 over time. With this evolution, the adversary's decision
16 calculus changes, which drives modification to our own
17 deterrence approach. Today we are challenged by multiple
18 adversaries with an expanding range of capabilities, and we
19 must adapt as well. To effectively deter and respond, if
20 necessary, in this multi-polar, all-domain world, we must
21 out-think, outmaneuver, out-partner, out-innovate our
22 adversaries. Deterrence in the 21st century requires the
23 integration of all our capabilities across all domains.

24 For over 2 decades, China and Russia have studied the
25 way we fight. They study the American way of warfare. They

1 have watched and learned how we train and fight. They
2 understand the advantages we gain from integrating
3 capabilities across all domains to accomplish our strategic
4 objectives. To counter our long-held advantages, they are
5 actively seeking to exploit perceived vulnerabilities and
6 are directly challenging us in areas of long-held strength.

7 While our advantages are beginning to erode, we have
8 not yet ceded the advantage. So my focus this year is to
9 continue to focus on the operations and modernization of our
10 nuclear capabilities, focus first on the nuclear triad of
11 ICBMs, submarines, and bombers to support a seamless
12 transition as the Department stands up a new space-focused
13 organization and to continue the implementation of my new
14 responsibilities as the nuclear command, control, and
15 communications, NC3, enterprise lead and the operator and
16 architect for this critical capability.

17 To be successful in everything that we do, we must
18 recapture our ability to go fast, faster than all our
19 potential adversaries. And that is my biggest concern these
20 days. That means we must return to the dynamic that made us
21 the strongest, most technologically advance military in the
22 world. But over my 38 years in military service, I have
23 watched as our nation has collectively developed an
24 increasingly unhealthy expectation of trying to remove all
25 risk from everything that we do. The challenge I have

1 issued in my command is go break down the bureaucracy, take
2 some smart risks, informed risks, do this within the left
3 and right limits that I established in my commander's
4 intent, and we have to move fast. It is critical if we are
5 to stay ahead.

6 So I am very grateful for your support in helping us do
7 just that. I look forward to an on-time budget this
8 upcoming fiscal year so we can sustain the momentum
9 invigorating this Department and our best-in-the-world
10 people, our best-in-the-world commercial sector to go faster
11 and innovate to bring more timely and affordable solutions
12 to our most pressing deterrence challenges. It is critical
13 because nuclear war cannot be won and therefore must never
14 be fought. Therefore, for us to prevent war, we must be
15 ready for war. Success means we have lived up to our motto
16 coined over 60 years ago in Strategic Air Command: Peace is
17 our profession.

18 Thank you for the opportunity to be here today, and I
19 look forward to your questions.

20 [The prepared statement of General Hyten follows:]

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1 Chairman Inhofe: Well, thank you, General Hyten. An
2 excellent statement.

3 General O'Shaughnessy?

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1 STATEMENT OF GENERAL TERRENCE J. O'SHAUGHNESSY, USAF,
2 COMMANDER, UNITED STATES NORTHERN COMMAND AND NORTH AMERICAN
3 AEROSPACE DEFENSE COMMAND

4 General O'Shaughnessy: Thank you. Chairman Inhofe,
5 Ranking Member Reed, and distinguished members of the
6 committee, I am truly honored to appear today as the
7 Commander of the United States Northern Command and the
8 U.S.-Canadian bi-national command, North American Aerospace
9 Defense Command. It is a pleasure to be testifying today
10 alongside General John Hyten who is not only my good friend
11 but someone who I have admired and respected for so many
12 years.

13 USNORTHCOM and NORAD are two complementary but distinct
14 commands driven by a single unyielding priority: defending
15 the homeland from attack. In this era of rapidly evolving
16 technology and renewed great power competition, the need for
17 an energized and active defense of the homeland cannot be
18 overstated. Revisionist powers, Russia and China, have
19 given every indication that their own security strategies
20 are based on holding the United States at risk with both
21 conventional and nuclear weapons, and they have signaled
22 that we must anticipate attacks against our civilian and
23 defense infrastructure in the event of a conflict.

24 Russia has modernized its aviation and submarine fleets
25 and fielded long-range cruise missiles designed to evade

1 radar detection. Russia and China continue their efforts to
2 penetrate our networks while developing and testing
3 hypersonic glide vehicles. And both have also established a
4 noticeably stronger foothold in the Arctic along the
5 northern approaches to the United States and Canada. As a
6 result, the strategic value of the Arctic as our first line
7 of defense has reemerged, and USNORTHCOM and NORAD are
8 taking active measures to ensure our ability to detect,
9 detract, and defeat potential threats in this region.

10 Our adversaries have engaged in deliberate, focused
11 efforts over a number of years to exploit our perceived gaps
12 and erode many of the advantages previously afforded by our
13 geography and technological superiority. As a result, it is
14 clear that our homeland is not a sanctuary.

15 Our mission to deter our adversaries is dependent on
16 our ability to detect and ultimately defeat potential
17 threats to our homeland. And I am grateful to the committee
18 for the strong support of USNORTHCOM and NORAD priorities
19 along those lines of effort. Your support for fielding AESA
20 radars for our aerospace control alert fighters and
21 improving the capability and capacity of our missile defense
22 sensors and interceptors clearly demonstrate our shared
23 sense of urgency and resolve.

24 In that same spirit, we must take prudent steps now to
25 ensure our next generation defensive capabilities, to

1 include a space-sensing layer of space-based missile defense
2 centers are not late to need. That effort cannot start too
3 soon, given the fact that our adversaries are already
4 developing and testing advanced weapons specifically
5 intended to avoid detection in order to hold targets in the
6 homeland at constant risk.

7 I sincerely appreciate the committee's work to provide
8 much needed predictability and stability with an on-time
9 budget in fiscal year 2019. I am also grateful for the
10 committee's ongoing efforts to ensure that we avoid the
11 devastating deep-cutting impacts that a return to
12 sequestration would bring to the Department of Defense.

13 USNORTHCOM and NORAD work every day with our partners
14 to keep our citizens safe while confronting the challenges
15 emanating from multiple approaches and in all domains. I
16 especially want to take this opportunity to express my
17 gratitude to the amazing men and women in the National Guard
18 who are great partners and critical in our ability to
19 perform our missions. Whether intercepting Russian bombers
20 off the coast of Alaska or providing much needed support to
21 our federal law enforcement partners along the southern
22 border, the airmen, soldiers, sailors, marines, coast
23 guardsmen, and civilians of USNORTHCOM and NORAD are deeply
24 committed to defending our nation, and I am honored to
25 represent them today.

1 Senators, we have the watch.

2 Thank you, and I look forward to your questions.

3 [The prepared statement of General O'Shaughnessy
4 follows:]

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1 Chairman Inhofe: Thank you, General O'Shaughnessy.

2 You know, General Hyten, there are two areas of
3 disagreement that we have heard among our colleagues in both
4 the House and in the Senate, and you have heard some this
5 morning in our opening statements. But one of them is the
6 significance of nuclear modernization. Now, it is
7 disturbing when we see some of our adversaries, peer
8 adversaries, China and Russia, have actually gotten ahead of
9 us in some areas of artificial intelligence and hypersonics.
10 But in the area of nuclear modernization, I know that Jim
11 Mattis, Heather Wilson, and others have said that is the
12 most significant thing that we could be doing, and yet, some
13 are saying that is an area where we could be making cuts at
14 this time.

15 I would like to have you start off by addressing that
16 as to do you agree with those who talk about the
17 significance of that program and make your comments on that.
18 And then I will get to the second one.

19 General Hyten: So it is the most important element of
20 our national defense.

21 Chairman Inhofe: It is the most important element of
22 our national defense.

23 General Hyten: And we have to make sure that we are
24 always ready to respond to any threat. I can do that today
25 because I have the most powerful triad in the world. I have

1 ICBMs, submarine-launched ballistic missiles, and bombers
2 that are ready to respond to any threat that comes. And
3 because of the capabilities of each leg of the triad, I have
4 the ability to respond to any threat. We did a Nuclear
5 Posture Review. It was released last year. In it, it
6 validated the need for a triad.

7 Our adversaries have also recognized the need for a
8 triad. They are beginning modernization of their programs
9 as well. In fact, Russia started their modernization
10 program in 2006. They are about 80 percent through
11 completing the modernization of their triad. They will be
12 pretty close to being through by about 2020, and in 2020, we
13 will still be starting. That is not a good place to be from
14 a national security perspective.

15 Chairman Inhofe: Well, that is right.

16 You have actually jumped to the second area of
17 disagreement is on the triad because several people have
18 said that we do not need a triad, all three legs. It could
19 adequately be handled without all three. So just
20 specifically on the triad element of the necessity of the
21 three legs.

22 General Hyten: So when you look at the threat we face,
23 the threat from the Russian triad, soon the threat from the
24 Chinese triad, threats from North Korea as well, you have to
25 look at the three elements of the triad.

1 The bombers are our most recallable element. They are
2 the most flexible element of the triad. The bombers can be
3 deployed and recalled by the President, deployed and
4 recalled, before they employ their weapons. They are the
5 most flexible element. We can do almost anything with a
6 bomber.

7 The submarine is the most survivable element. It
8 allows us to hide from our adversaries and make sure we can
9 respond to any surprise attack.

10 And the ICBM is the most ready element to respond to a
11 quick surprise attack, and it also creates the most
12 significant targeting problem for an adversary because there
13 are 400 separate targets across the United States. All
14 would have to be independently targeted by an adversary.
15 That targeting problem is hugely problematic and creates a
16 significant advantage for us.

17 So when you put those three together, you get this
18 great operational capability. But the other thing it
19 provides for us is the ability to respond to a failure in
20 any one of those legs. If you have a technical failure or
21 intelligence failure, I can cover it with another leg, and
22 that has happened during my tenure. And I never have put
23 this nation at risk because I have the flexibility in the
24 triad.

25 Chairman Inhofe: Yes. General O'Shaughnessy, that is

1 a big deal to you too.

2 And we look at what we have done with our aging system.
3 We are talking about now getting into a modernized ICBM. I
4 do not know how long that would take. Some people say all
5 the way through the 20s. At the same time, you have our
6 adversaries who -- they may have been late in starting, but
7 they are starting in a more modernized way. Do you agree
8 with that? And so they become a threat even though right
9 now today they may not be ahead of us in these areas.

10 General O'Shaughnessy: Chairman, I would agree. And I
11 think as the NDS articulates, the security environment has
12 fundamentally changed and part of it is because of what you
13 alluded to. And I think as we watch both Russia and China
14 create success in some of their weapons programs and
15 advancing the capabilities that they have, they are
16 fundamentally changing not just on the ballistic missile
17 side but, as you mentioned, the hypersonics and also in the
18 cruise missiles. And it is not just the cruise missiles
19 themselves. It is also the platforms that deliver those
20 cruise missiles. They have clearly invested very
21 specifically with the ability to hold our homeland at risk
22 with things like submarines and the bombers that they have
23 modernized with the low RCS cruise missiles that they can
24 then launch. And therefore, we have to also modernize. We
25 have to stay ahead of that advancing threat. And we cannot

1 expect to have success with 20th century technology against
2 21st century threats.

3 Chairman Inhofe: Which is what we have had.

4 Thank you very much.

5 Senator Reed?

6 Let me interrupt, Senator Reed, if I might, because we
7 do have a quorum now.

8 I will ask the committee to consider a list of 1,818
9 pending military nominations. All the nominations have been
10 before the committee the required length of time. Is there
11 a motion?

12 Senator Reed: So moved.

13 Senator Fischer: Second.

14 Chairman Inhofe: All in favor, say aye.

15 [Chorus of ayes.]

16 Chairman Inhofe: No?

17 [No response.]

18 Chairman Inhofe: It carries.

19 Senator Reed?

20 Senator Reed: Thank you, Mr. Chairman.

21 General O'Shaughnessy, as I have indicated in my
22 opening statement, I have concerns about the use of American
23 military forces along the southern border and a hard time
24 understanding the nature of an emergency that would require
25 military forces when nowhere in the National Defense

1 Strategy, the worldwide threat statement from the
2 intelligence community, nor the statement from the Commander
3 of SOUTHCOM indicate that migrant caravans of civilians
4 across the border are a military threat. In fact, in your
5 opening statement, you say -- and I quote -- the threats to
6 our nation from our southern border are not military in
7 nature. Close quotes.

8 So just to be clear, in your professional opinion, does
9 the illegal crossing of the border by civilians represent a
10 military threat?

11 General O'Shaughnessy: Senator, first, I would say
12 first that I do think a secure border does reduce threats to
13 the homeland.

14 Now, specific to your question about is it a military
15 threat that is coming towards us, it is not a military
16 threat, but that is slightly than answering whether the
17 military should be responding to the situation.

18 Senator Reed: Following up, in your professional
19 opinion again, would a wall be effective in defending a
20 military attack on the United States?

21 General O'Shaughnessy: Senator, I would say that
22 border security is national security. I do see that any
23 barrier in place to secure our nation does have some
24 ramifications to our ability to defend against a military
25 threat as well. Right now, there is not a specific military

1 force from the south that we are trying to take action
2 against.

3 In this particular case, though, Senator, I would say
4 over the last 5 months I have spent a tremendous amount of
5 time on the border, as you would imagine, working with our
6 CBP partners. And in all of those trips and discussions, it
7 has been clear to me that the Customs and Border Protection
8 personnel very much value the border protection and seeing
9 it, having the awareness, having some impediments, whether
10 that be a barrier or wall, et cetera, and then having the
11 ability to respond to it. And that has been fairly
12 universal as I have been doing my trips to the border.

13 Senator Reed: And they are civilian law enforcement
14 officials who have a law enforcement mission, and the
15 context of their evaluation is based upon that law
16 enforcement mission.

17 General O'Shaughnessy: That is correct, Senator.

18 Senator Reed: Thank you.

19 You have mentioned many real threats that have been
20 articulated in the National Defense Strategy, Russia and
21 China in particular. Many of them really are not focused on
22 our southern border but our northern border, the opening of
23 the Arctic, the operations by both China and Russia in the
24 Arctic, and also I think maintaining the capabilities of
25 NORAD. Those are multibillion dollar tasks. Do you think

1 they are of more military significance than any operation
2 along the southern border?

3 General O'Shaughnessy: Senator, what I would say is
4 those threats are very real. Those threats are what we are
5 focused on within both NORTHCOM and NORAD because we do see
6 that the evolving threat, as articulated within the NDS,
7 very much is trying to take advantage of the northern
8 approach. We have vulnerabilities there that we need to
9 continue to close the gap on, and so that is a focus area
10 for us at both NORTHCOM and NORAD.

11 Senator Reed: Thank you very much, sir. Again, thank
12 you for your service.

13 General Hyten, I just have a few minutes. But the
14 issue of hypersonic weapon systems are increasingly critical
15 to us. It seems from our perspective that our adversaries
16 are shifting more into the hypersonic realm for many
17 reasons. One reason is that our defense systems were built
18 for ballistic missiles, not hypersonic missiles.

19 Do you feel that in the short run you can deter these
20 hypersonic vehicles?

21 General Hyten: So, Senator, the hypersonic activities
22 in both China and Russia are not the majority of their
23 activities right now. The majority are still the
24 traditional ballistic missile, submarine, bomber threats
25 that we can deter.

1 I also believe that we have the ability to deter any
2 adversary that would deploy nuclear weapons against us. My
3 one concern in this area is that in order to effectively
4 deter, you have to be able to see, characterize, and
5 attribute where the threat is coming from. And as our
6 adversaries are moving into cruise missile technology and
7 hypersonic technology, that challenges our ability to
8 provide those attributes of detection and characterization.
9 We need to move in that area to sense the threat so we can
10 effectively deter it.

11 Senator Reed: Let me ask a couple questions because my
12 time is running out.

13 Is your sense that they have, as we have, a legacy
14 system of missiles, medium-range, long-range,
15 intercontinental, but they seem to be moving with great
16 energy into hypersonics. So that could be the weapon of
17 choice in the future.

18 The second part of that is that, as I understand it --
19 you can clarify it -- hypersonics are not governed by the
20 INF Treaty so that we could develop hypersonics and still
21 remain within the treaty. So where are they going, and can
22 we do that without leaving the INF?

23 General Hyten: So they are clearly moving aggressively
24 in the area of hypersonics. Their testing is fully
25 integrated systems, long-range and medium-range, as has been

1 well documented, as opposed to -- what was the second part
2 of the question?

3 Senator Reed: The second part was we can conduct
4 hypersonic research without violating the INF.

5 General Hyten: Right. That is correct. So the INF
6 Treaty says that it covers ballistic missiles, and ballistic
7 is defined as more than half -- the majority of the
8 trajectory of the missile is ballistic. And the hypersonic
9 missiles that we are talking about, less than half of that
10 trajectory is ballistic. Therefore, they are not covered in
11 the INF Treaty.

12 Senator Reed: Thank you very much.

13 Thank you, Mr. Chairman.

14 Chairman Inhofe: Thank you, Senator Reed.

15 Senator Fischer?

16 Senator Fischer: Thank you, Mr. Chairman.

17 General Hyten, in your prepared remarks, you said the
18 only way to change our strategic deterrent is to convince
19 our adversaries to reduce the threat and this is not
20 occurring. China and Russia in particular are not only
21 modernizing the traditional elements of their own triads,
22 but they are also building a myriad of additional nuclear
23 capabilities to threaten the United States.

24 In your comments to Chairman Inhofe, you explained the
25 desperate need that we have for modernization and to

1 continue with our triad, the importance that has for our
2 national security and for the security of this world.

3 I would ask you, are you aware of any intelligence or
4 threat assessment supporting the courses of action that are
5 called for from some that we need to unilaterally cut our
6 nuclear forces?

7 General Hyten: I am not.

8 Senator Fischer: Is it your view that taking such
9 actions would make us more vulnerable and reduce our ability
10 to deter threats?

11 General Hyten: It would significantly reduce our
12 deterrent.

13 Senator Fischer: We are looking at a budget in the
14 Department for nuclear forces and the plan for
15 modernization. Some people consider it a wish list just to
16 give the Department everything that they desire, and no
17 effort has been made to sort through things to look at what
18 we truly need to address the threats that we have. And I am
19 talking about need versus want here.

20 That is not an accurate statement, is it, that it is a
21 wish list?

22 General Hyten: I look at our nuclear capabilities, our
23 triad, our modernization program as the minimum essential
24 capabilities required to defend this nation because if we
25 have to defend against the most existential threat -- and

1 Russia and China and their capabilities are the most
2 existential threat. So to me that is the most minimum
3 essential capabilities that we have to build, and even at
4 the highest rate, it will still be just roughly 6 percent of
5 the overall defense budget. I think we can afford that
6 security.

7 Senator Fischer: And do you fully support the Nuclear
8 Posture Review as it was put forward by the Department?

9 General Hyten: I do, ma'am.

10 Senator Fischer: And do you truly believe it is needed
11 that we continue on a path forward to reach the goals of
12 that Nuclear Posture Review?

13 General Hyten: I think it is essential.

14 And if I could comment on the Nuclear Posture Review, I
15 think it is very interesting to look at our approach defined
16 in the Nuclear Posture Review and our adversaries' approach.
17 The elements in the Nuclear Posture Review that we have put
18 forth all stay within our treaty responsibilities. We do
19 not recommend developing new nuclear-powered torpedoes, new
20 nuclear-powered cruise missiles. We do not look at
21 anything. We believe that we can secure this nation through
22 the modernization of the triad and the addition of a couple
23 of small elements to respond to specific threats. In that
24 case, it is the low-yield nuclear weapon and the submarine-
25 launched cruise missile. But that is a very measured

1 response to what our adversaries are doing.

2 Senator Fischer: I appreciated your very clear and
3 concise explanation of the importance and really the mission
4 of each leg of the triad, and I am very pleased that you
5 made that clear and concise for the record today. Thank
6 you.

7 I would like to ask you a little bit about the New
8 START treaty. In your opening statement, you note that
9 Russia is also developing and intends to deploy novel
10 strategic nuclear weapons like its nuclear-armed, nuclear-
11 powered underwater, unmanned vehicle and intercontinental-
12 range cruise missile, which Russia seeks to keep outside of
13 existing arms control agreements.

14 Do you believe that these new systems, if they are
15 deployed, should be counted under a New START treaty
16 limitation?

17 General Hyten: So the way the New START treaty is
18 defined is that the New START treaty only covers existing
19 weapons when it was put in place in 2011. That means it
20 covers the ballistic missiles, both submarine- and ground-
21 launched. It covers the bombers and the cruise missiles on
22 the bombers, and the platforms that carry them.

23 There is also a clause in the treaty that says if one
24 of the parties of the treaty sees the development of new
25 strategic arms, they can come to the bilateral consultative

1 commission and bring those things forward. I have not seen
2 that happen. But we see them developing capabilities
3 outside of that treaty, which is concerning to me.

4 Senator Fischer: Do you believe a decision to extend
5 the treaty should be made on its national security merits
6 and Russia's behavior figures heavily into that evaluation
7 with just the example that I gave you, that we need to be
8 looking at these not just to renew a treaty?

9 General Hyten: I do, ma'am. I want Russia in every
10 treaty. I want Russia in the INF Treaty. I want Russia in
11 the New START treaty. I support those treaties. But they
12 have to be parties to those treaties. It takes two to
13 participate in a treaty at least.

14 Senator Fischer: And Russia has not been a party to
15 the INF Treaty. Is that correct?

16 General Hyten: Russia has violated the INF Treaty for
17 5 years now, and despite our best efforts, we have not been
18 able to bring them into compliance. I have talked about
19 that to the President. I have talked about New START with
20 the President. We all want Russia in that treaty. We want
21 them to participate, but if they will not, we are tying our
22 own hands to deal with the adversaries in the world,
23 including China, who is not part of that treaty.

24 Senator Fischer: It does not help when your partner in
25 a treaty is not in compliance and we remain in compliance.

1 General Hyten: Yes, ma'am.

2 Senator Fischer: Thank you, sir.

3 Chairman Inhofe: Thank you, Senator Fischer.

4 Senator Shaheen?

5 Senator Shaheen: General Hyten, General O'Shaughnessy,
6 thank you both for your testimony this morning and for your
7 service to the country.

8 I want to begin my questions with you, General
9 O'Shaughnessy, because I understand that part of your
10 responsibilities as the leader of a combatant command is to
11 look at counter-drug operations at our borders. Is that
12 correct?

13 General O'Shaughnessy: Ma'am, what we do is we do
14 support law enforcement agencies in a supporting role for
15 some of the counternarcotics work.

16 Senator Shaheen: And have you been made aware of any
17 plans that would take money from what is being proposed
18 already to fund the President's recent directive to
19 reprogram DOD interdiction funding to pay for a border wall?

20 General O'Shaughnessy: Ma'am, as you know, with a
21 declaration of a national emergency that is now being
22 considered, the Secretary of Defense and I, actually
23 together with the Chairman, went down to the border this
24 weekend on Saturday in order to see firsthand -- the
25 Secretary to see firsthand both what our troops are doing

1 now, as well as looking at the border and potential
2 applications of DOD funding for the border, to inform his
3 decisions. Those decisions -- and that is ongoing this
4 week. And so at this time, that is work in progress with
5 the Acting Secretary of Defense.

6 Senator Shaheen: But do I understand you to say then
7 that plans are being drawn up that would take money from
8 those drug interdiction efforts to use for funding a wall?

9 General O'Shaughnessy: That is one of the options that
10 is being looked at. It is premature at this time and that
11 work is being done literally as we speak.

12 Senator Shaheen: Well, as I am sure you are aware, the
13 opioid crisis in the United States has taken tens of
14 thousands of lives. In New Hampshire, we have the second
15 highest opioid overdose death rate in the country. So this
16 is an issue that we care tremendously about. It is my
17 understanding that most of the illicit drugs that come into
18 this country come through ports of entry as opposed to
19 coming across the border in other places. Is that what you
20 have seen?

21 General O'Shaughnessy: Ma'am, I have seen a little bit
22 of both. And there has recently been a DEA report that
23 talks about the most common method of transportation through
24 the borders is, in fact, through the POEs, but it is most
25 common, not necessarily that all of it goes through there.

1 It further delineates and talks.

2 I will give you an example. Just this week, twice I
3 have been to the border. In one of my trips down there,
4 what they talked about was the TCOs that run the migrants
5 coming are the same criminals that also run the narcotics.
6 And what we are seeing now is a coordinated effort, for
7 example, where they will send a large number of migrants
8 through over the border to take the Border Patrol agents off
9 of the line, and then they will use that as an opportunity
10 to bring drugs across the border while the Border Patrol
11 agency are processing the migrants. So it is a coordinated
12 effort here that brings it all together that is very
13 disturbing as we go forward.

14 Senator Shaheen: And do you agree that it is helpful
15 to have technology and more people at our ports of entry so
16 we can better interdict drugs coming through there?

17 General O'Shaughnessy: Absolutely, ma'am.

18 Senator Shaheen: General Hyten, I want to follow up on
19 Senator Reed's question about hypersonic weapons because I
20 very much appreciated your strong statement that we are in a
21 position to defend this country against all threats.

22 Does that include hypersonic weapons? There have been
23 public reports that we do not have a defense against those
24 hypersonic weapons.

25 General Hyten: So our defense against hypersonics is

1 our nuclear deterrent. If somebody attacks us with a
2 nuclear hypersonic capability, we have the ability to
3 respond. Now, it is important for us to be able to track
4 that to understand where it comes from.

5 So if you look at the way a hypersonic missile works,
6 the first phase is ballistic, but it is a fairly short
7 phase. That phase we will see. We will see the launch. We
8 will be able to characterize it and understand it came from
9 Russia, it came from China. But then from our sensor
10 perspective, it basically disappears and we do not see it
11 until the effect is delivered. We need to build sensors to
12 be able to understand exactly where those things are going
13 so we can better defend ourselves. You cannot defend
14 yourself if you cannot see it.

15 Senator Shaheen: I am sorry. I did not mean to
16 interrupt. But do we have any sense about how much time we
17 have from the point at which those weapons might be launched
18 until when they might land in the United States?

19 General Hyten: So it is a shorter period of time. The
20 ballistic missile is roughly 30 minutes. A hypersonic
21 weapon, depending on the design, could be half of that,
22 depending on where it is launched from, the platform. It
23 could be even less than that. So there are a lot of
24 variables into that, but it is more challenging than a
25 ballistic missile.

1 Senator Shaheen: Thank you.

2 The United States suspended its obligations under the
3 INF Treaty. There has been some discussion about that. Can
4 you talk about what our next steps might be to improve our
5 position and to strengthen deterrence against Russia, China,
6 and North Korea?

7 General Hyten: So I think the most important thing we
8 can do is continue to modernize our nuclear triad. As long
9 as we have nuclear capabilities that our adversaries cannot
10 attack, they cannot take out, and they cannot eliminate, we
11 will be able to prevent the use of nuclear weapons on our
12 nation. I remember when I interviewed for this job with
13 President Obama and then I interviewed with Secretary Mattis
14 after he took over, he asked me what is the reason we have
15 nuclear weapons. And I said the reason we have nuclear
16 weapons is to prevent people from using nuclear weapons on
17 us. That is exactly why we have them.

18 And if you do not have a robust capability and our
19 adversaries do not believe that you are willing to respond,
20 then you run the risk that somebody will take that step
21 across the line that nobody ever wants to experience. That
22 is why we have to make sure we modernize as we go forward.

23 Senator Shaheen: Thank you.

24 Thank you, Mr. Chairman.

25 Chairman Inhofe: Thank you, Senator Shaheen.

1 Senator Rounds?

2 Senator Rounds: Thank you, Mr. Chairman.

3 Gentlemen, thank you for your service.

4 I want to follow up a little bit with regard to the
5 nuclear triad and what makes it as important to us as it
6 does today. Part of it is the reliability, and when we
7 start talking about the reliability of the nuclear triad,
8 one of the areas that I think we have identified as being in
9 need of updating is the nuclear command and control of the
10 different portions of the triad.

11 Could you share with us a little bit about, recognizing
12 the setting that we are here, the weaknesses that we are
13 trying to improve upon and include within that a discussion
14 about the cyber threats that are shortcuts and that really
15 do put our systems at risk today?

16 General Hyten: So one of the interesting things I have
17 observed in my 27 months in command now -- so that is a long
18 period of time, 2 years and 3 months. Not one time in that
19 2 years, 3 months have I lost connectivity with the nuclear
20 force. Can you imagine any other electronic system in the
21 world where that has happened? That shows you how
22 resilient, reliable, and effective the current command and
23 control system is.

24 But what concerned me about it is I really cannot
25 effectively explain that to you because it has been built 50

1 years ago through different kind of pathways, different kind
2 of structures. We look at it hard each and every day, and
3 we know that those things are going to have to be replaced
4 in about a decade. And so the big challenges that we have
5 is how are we going to replace that old, ancient thing that
6 works so well that we know works, but will not work after
7 about another decade. How do we replace that with something
8 that works just as well and with modern technology when we
9 have the cyber threats we have to look at? One of the great
10 things about being so old is the cyber threats are actually
11 fairly minimal.

12 Senator Rounds: Would it be fair to say that there is
13 not an hour that goes by in which our system of protection
14 of our communication system is not challenged someplace
15 along the pathways?

16 General Hyten: We see literally thousands, if not
17 millions, of attacks against our systems every day.
18 "Attacks" is defined as an unknown activity trying to get
19 into a network. It may not be an attack, maybe just a
20 curious person. But nonetheless, we look at all of those
21 and make sure we defend those accordingly. So we see that
22 broadly on the network side. It is much more secure on the
23 nuclear side because much of that is closed off to the
24 world.

25 Senator Rounds: With regard to both hypersonics and

1 the item of discussion lately, the torpedo, which has been
2 discussed in terms of the Russian advancements, in both
3 cases there is a question as to the vector that we receive
4 them from. Both are capable of movement, changes in
5 direction, and so forth, which really changes the way that
6 we defend North America because in many cases, our defenses
7 have been built on the closest to the most direct route from
8 our near-peer adversaries into the North American continent.

9 Can you share with us a little bit about the needs,
10 first of all, for the space-based capabilities that we are
11 going to need in order to determine where hypersonics are at
12 and so forth?

13 And, second of all, General O'Shaughnessy, I would just
14 ask, can you share a little bit about the changes within the
15 threats that a torpedo that could hit along our shorelines
16 could do with regard to how we have to refocus our North
17 American defenses as well?

18 So really two questions, but if you could each.

19 General Hyten: So real quickly, Senator, when I was a
20 young officer and the Soviet threat existed, we had big
21 radars on our southern border. We had a radar in Georgia
22 and a radar in Texas, Robbins and El Dorado, that were
23 looking south for threats that we had to worry about.

24 When the wall came down and Russia became our friend,
25 we dismantled those radars. So we have no radars that look

1 south.

2 We have built radars and we are building a radar in
3 Hawaii, built a radar in Alaska to defend against the Korean
4 threat in particular to make sure we can enable General
5 O'Shaughnessy's missile defense.

6 But there are not enough islands in the world to build
7 a radar to defend every avenue. Therefore, we have to go to
8 space, and we can go to space now in an affordable way with
9 distributed constellations that can look down and
10 characterize that threat in a global perspective so we can
11 see them wherever they come from. That is the direction we
12 need to go.

13 Senator Rounds: All at risk of cyber interference.

14 General Hyten: All at risk of cyber interference,
15 which is the big challenge of the day.

16 Senator Rounds: Thank you.

17 General O'Shaughnessy?

18 General O'Shaughnessy: Yes, sir. As we talked about
19 earlier with respect to Arctic as the geography is no longer
20 the buffer that it once was, I would say the same thing from
21 the sea. It was a time where we for decades actually used
22 the sea as a moat and really did not have to worry from the
23 threats directly coming against the homeland from the sea.
24 That has fundamentally changed, as you were mentioning
25 relative to the weapons that are being created.

1 Therefore, we need to go and invest ourselves in our
2 ability to have, first, the domain awareness. And just as
3 General Hyten had mentioned, you have to see it if you are
4 going to be able to react to it and ultimately defeat it.
5 Right now, we need to invest in the IUSSS, which is our
6 integrated undersea surveillance system, which has atrophied
7 as it relates to the continental U.S. and our ability to
8 defend there. We need to invest in that now to be able to
9 defend against these advanced threats that are coming from
10 the sea.

11 Senator Rounds: Thank you.

12 Thank you, Mr. Chairman.

13 Chairman Inhofe: Thank you, Senator Rounds.

14 Senator Blumenthal?

15 Senator Blumenthal: Thank you, Mr. Chairman.

16 Thank you both for your service and for your very
17 forthright and candid answers at this hearing.

18 General O'Shaughnessy, is there a national emergency at
19 the border?

20 General O'Shaughnessy: Senator, the President has
21 declared a national emergency on the border.

22 Senator Blumenthal: I am asking you in your military
23 opinion does this nation face a national emergency at the
24 border.

25 General O'Shaughnessy: Yes, Senator. As the President

1 has declared that national emergency, he has given guidance
2 and direction down to the Secretary of Defense and then the
3 Acting Secretary of Defense. As that has happened, it has
4 been parlayed to me in the form of an execution order, which
5 makes it very clear to me of my actions that I need to take
6 as a result of the guidance from our senior leadership.

7 Senator Blumenthal: Did you recommend that he declare
8 a national emergency?

9 General O'Shaughnessy: Sir, I did not directly
10 recommend either way, although I will say --

11 Senator Blumenthal: Were you consulted before he did
12 it?

13 General O'Shaughnessy: Senator, I will say I have had
14 multiple conversations, numerous conversations directly with
15 the President with respect to the border. In addition, I
16 have had multiple conversations as the Secretary of Defense
17 and Acting Secretary of Defense has gone over to the White
18 House for these conversations that have happened. And I
19 think I feel very comfortable that as the operational
20 commander that our perspective was considered as those
21 decisions were made.

22 Senator Blumenthal: What is the threat to our national
23 security that justifies declaring a national emergency,
24 General?

25 General O'Shaughnessy: Sir, what I see from my

1 perspective is that a secure border will reduce the threats
2 to the homeland.

3 Senator Blumenthal: That is a general statement. But
4 what is it specifically at this moment in time that
5 justifies declaring a national emergency?

6 General O'Shaughnessy: Senator, again I would say that
7 the President has made that declaration. We are responsible
8 for that declaration --

9 Senator Blumenthal: You are saying in fact -- I do not
10 mean to be disrespectful -- that there is a national
11 emergency because the President has said there is a national
12 emergency.

13 General O'Shaughnessy: No, sir. What I am saying from
14 my perspective I get my orders from the Secretary of Defense
15 and the President. Those orders are very clear to me. And
16 just like any other mission that I am given, when I get that
17 legal order and I have the troops that are able to enforce
18 that and take those actions, I do it with the same vigor and
19 professionalism that I do for my ballistic missile defense,
20 my operational, legal, et cetera. I take that same look to
21 the --

22 Senator Blumenthal: I understand that you follow
23 orders and you do it well and you are proficient and expert
24 in your duties. And I commend you. But you did not
25 recommend that the President of the United States declare a

1 national emergency, and you have not given me as yet a
2 specific fact at the border now that justifies declaring a
3 national emergency.

4 General O'Shaughnessy: Senator, I spent a lot of time
5 at the border over the last 5 months, had very specific
6 conversation with our lead federal agency, in this case the
7 Customs and Border Protection, as well as with the
8 Department of Homeland Security and directly with Secretary
9 Nielsen on a regular, routine basis. I would defer to them
10 with respect to the characterization of the threat. I will
11 say we are trying to be a good partner to another lead
12 federal agency as they take on this challenge.

13 Senator Blumenthal: I am concerned, General, very
14 frankly that this administration is politicizing our
15 military and militarizing our immigration policy, in effect
16 using the troops under your command as political props both
17 in terms of declaring a fake emergency but also compromising
18 our potential security by diverting them away from other
19 assignments and missions that are absolutely necessary. My
20 understanding is that these troops were engaged in various
21 readiness and training exercises at the time they were
22 deployed. Is that correct?

23 General O'Shaughnessy: Sir, there have been quite a
24 few different deployments and units within that, but to your
25 point, some of them would. I will also say that many of the

1 units that have deployed, especially the initial salvo that
2 went out, are actually doing exactly what their military
3 skills are. Military police do a military police business.
4 Engineers do an engineering business. In fact, many of them
5 come back and talked about the readiness advantage they have
6 for the way that they have been deployed.

7 That said, readiness is a key concern of ours and mine
8 in particular, and we will continue to look at the impacts
9 to readiness as we go forward.

10 Senator Blumenthal: General, recently -- I think last
11 week as a matter of fact -- Under Secretary Rood and Vice
12 Admiral Gilday testified that a minimum of \$237 million has
13 been spent so far on deploying both active duty troops and
14 guard personnel at the border. They were unable to provide
15 a total cost estimate for fiscal year 2019 even though those
16 deployments have been extended -- correct me if I am wrong
17 -- through September of 2019. Can you give us a cost
18 estimate?

19 General O'Shaughnessy: Senator, I will confirm that
20 the deployments have been extended through September of
21 2019.

22 The cost estimate -- specifically on the title X side,
23 which is the part that is under my command and control --
24 was at the \$132 million through the 31st of January of this
25 year. We will continue to work with OSD who is ultimately

1 the one who is running the calculations with respect to the
2 cost.

3 Senator Blumenthal: In connection with the declaration
4 of national emergency and the diversion of money that is
5 necessary to build the wall, have you made a recommendation
6 as to military construction projects within your command
7 that would be stripped of funding to fund the wall?

8 General O'Shaughnessy: Sir, the actual funding is
9 being worked by the Secretary of Defense as we speak. I did
10 go down to the border to the El Paso area with the Secretary
11 just this last weekend so he would have an understanding
12 both of the military aspects of what our troops are doing
13 right now, as well as be able to talk to the Customs and
14 Border Protection that the folks actually doing the mission
15 there and be able to take that into his calculations as this
16 week he determines the funding that might be applied toward
17 resourcing a wall or other efforts on the border.

18 Senator Blumenthal: So the money that will be taken
19 from military construction projects under your command has
20 not yet been determined as to what specifically and where it
21 will come from.

22 General O'Shaughnessy: That is a true statement, sir.

23 Senator Blumenthal: Thank you.

24 Chairman Inhofe: Thank you, Senator Blumenthal.

25 Senator Ernst?

1 Senator Ernst: Thank you, Mr. Chair.

2 And thank you, gentlemen, for being here today. We
3 truly do appreciate it. I appreciate for both of you your
4 extreme professionalism in a very difficult time. So thank
5 you very much for stepping up. I do appreciate it.

6 General O'Shaughnessy, let us go back and visit a
7 little bit about the National Guard. You happened to
8 mention it in your comments. And this morning we had our
9 National Guard breakfast caucus. A lot of our adjutant
10 generals are here in town today and really excited to be
11 here and speaking with all of their elected representation.

12 Can you talk a little bit about how the National Guard
13 fits into the overall force structure here in the United
14 States and what type of missions are they engaging in?

15 General O'Shaughnessy: Yes, ma'am. Thanks for the
16 opportunity to highlight the great partnership we have with
17 the National Guard. And I will say certainly from the
18 NORTHCOM and NORAD perspective, they are absolutely integral
19 and core to every single mission that we do within our
20 commands. And it goes all the way from whether it is the
21 aircraft that are sitting, as we speak right now, across
22 both the CONUS as well as in Alaska or whether it goes to
23 the command and control that is part of that, whether it is
24 the ballistic missile defense that we have in place. Every
25 mission set that we have right now the National Guard is

1 actively employed in doing that. And frankly, I can just
2 tell you plain and simply we could not do our mission set
3 without the National Guard and their contributions.

4 Senator Ernst: And we appreciate that very much. And
5 we want to utilize them as much as we can. We do know that
6 there are a number of troops that have been activated or
7 mobilized for work down on the southern border. We know
8 that to be true.

9 And I would just state that having served in the
10 National Guard and responding to a number of different
11 mobilizations, whether it is hurricane relief, whether it is
12 working in flood situations, or whether it is down on the
13 border, that our troops are actively engaging in their MOS
14 specific skill sets. So if you are a heavy equipment
15 operator, you are out there driving a dozer or you are
16 operating. If you are a truck driver, you are driving. You
17 are actually doing those skills that have been assigned to
18 you. So thank you for highlighting that. I think it is
19 great for our readiness to actually be able to engage in our
20 MOSs. So thank you for that.

21 I also want to go back. We have talked a lot with
22 General Hyten about modernization and our nuclear
23 capabilities, but let us focus a little more with you. And
24 what do you see the most pressing modernization requirements
25 for NORTHCOM?

1 General O'Shaughnessy: Yes, ma'am. Thank you for the
2 opportunity to highlight this. It is actually fairly
3 similar. The first thing is domain awareness. Over the
4 years, we have just let atrophy our ability to understand
5 and see what is happening in and around our nation. It was
6 done at the time for the right reasons because we had a
7 sanctuary. We had the ability to not have more advanced
8 sensors and more advanced capabilities. But now that it has
9 fundamentally changed based on the security, based on our
10 potential adversaries, our peer strategic competitors that
11 now have the ability to reach out and hold us at risk, we
12 need to fundamentally relook at the way that we are
13 maintaining our domain awareness. And that cannot be done
14 with one single widget, one single particular program. It
15 is going to have to be a family of systems. It is going to
16 have to include both terrestrial based capability and a
17 reassertion of technology in terrestrial based. It is going
18 to have to include some air domain advances in technology
19 and capability. But it is also absolutely going to have to
20 include space. And we really need to accelerate our work to
21 put sensors in space that can help us understand the domain
22 both on the sea and in the air of the threats that are
23 coming towards our homeland.

24 In particular, the Arctic is an area that we really
25 need to focus on and really look at investing. That is no

1 longer a buffer zone. We need to be able to operate there.
2 We need to be able to communicate there. We need to be able
3 to have a presence there that we have not invested in in the
4 same way that our adversaries have. And they see that as a
5 vulnerability from us, whereas it is becoming a strength for
6 them and it is a weakness for us, and we need to flip that
7 equation.

8 Senator Ernst: Yes. And you mentioned the Arctic, and
9 I am sure that my colleague, Senator Sullivan, will have a
10 lot of great questions there.

11 But when we talk modernization, have we identified a
12 system to replace the aging northern warning system?

13 General O'Shaughnessy: Ma'am, we have a study that is
14 going on right now. It is a bi-national study. It is being
15 done by our Air Combat Command within the United States Air
16 Force, as well as with Canada, that is going to help us.
17 But I will tell you that north warning system right now --
18 the last hardware insertion of technology was 1985. That
19 needs to be invested in, and again, it needs to be part not
20 just of advancing that but also doing the all-domain
21 awareness in addition to the terrestrial based.

22 Senator Ernst: Yes, I appreciate that.

23 And, General Hyten, thank you so much for hosting me
24 last year at STRATCOM. I really appreciated the tour and
25 the time you took to educate me on your mission set there.

1 Can you talk a little bit about the move that is
2 ongoing at Offutt Air Force Base?

3 General Hyten: Senator, I am glad to be able to sit
4 here and say we are actually getting ready to move into the
5 building. It has been a long time. It is a couple years
6 late. The Guard did an amazing job. We brought in over 20
7 engineering and installation squadrons from the Guard to
8 help us recapture some schedule. They saved over \$70
9 million of the taxpayers' money, and they saved us probably
10 more than that in schedule. So we are getting ready to move
11 in. I think we will be able to start next week, and I hope
12 to have the opening ceremonies this October. And that will
13 be a big day because we will be able to do our mission even
14 better. That will become the hub of nuclear command and
15 control.

16 Senator Ernst: Outstanding. Gentlemen, thank you both
17 so much for your leadership.

18 Chairman Inhofe: Thank you, Senator Ernst.

19 Senator Heinrich?

20 Senator Heinrich: General O'Shaughnessy, forgive me
21 for jumping back and forth between Intel and this committee
22 this morning. There is a little bit of something going on
23 over there as well.

24 I wanted to return to something that Senator Blumenthal
25 came up and just make sure I have the correct information

1 that you were not consulted by the White House before the
2 decision to use military construction dollars to pay for the
3 national emergency.

4 General O'Shaughnessy: No, sir. That was not my
5 response. Specifically, we have been in dialogue. I have
6 been in dialogue with the President all the way down for
7 multiple occasions, to include in coordination with the
8 Secretary of Defense. And the actual decision of how that
9 funding will be placed is actually what the Secretary of
10 Defense is actually working through literally right now.

11 Senator Heinrich: Were you consulted before the
12 announcement?

13 General O'Shaughnessy: With multiple dialogues talking
14 about the border, talking about the situation that we see.

15 Senator Heinrich: Is that a yes?

16 General O'Shaughnessy: Our ability to have the
17 operational perspective known was absolutely present.

18 Senator Heinrich: My question is were you consulted as
19 to using military construction dollars as the source of
20 funding to pay for the national emergency efforts?

21 General O'Shaughnessy: Yes, in fact, with the
22 Secretary of Defense.

23 Senator Heinrich: That is a decision you support.

24 General O'Shaughnessy: I gave my best military advice
25 to the Secretary of Defense, to include going down,

1 physically going down, with him to the border to make sure
2 he understood the operational perspective.

3 Senator Heinrich: If those dollars do flow to that
4 priority rather than what they were appropriated for and
5 authorized for, what impact of the cancellation of some of
6 those construction projects have whether it is for military
7 housing or air traffic control improvements or even runway
8 upgrades? What impact would that have on military morale?

9 General O'Shaughnessy: I think right now, Senator,
10 that is premature. I think as we look at it, that is
11 exactly the types of things that the Secretary is looking
12 at. He is looking at it from what is the right balance,
13 what is the right use of those funds, and in fact, what
14 would the correct funds be, appropriate funds, to use given
15 the direction that he has been given.

16 Senator Heinrich: Given the Constitution, I would
17 suggest that is a job for Congress.

18 General O'Shaughnessy: Yes, sir.

19 Senator Heinrich: General Hyten, DOD's initial
20 requirements for plutonium pits are to produce 30 pits per
21 year at Los Alamos by 2026. Are you and NNSA still laser-
22 focused on making that happen?

23 General Hyten: We are laser-focused on 30 by 2026 and
24 80 by 2030, and my requirement is that. I never said where
25 they had to be done, but if we do not get 30 in Los Alamos,

1 we will never the 80.

2 Senator Heinrich: If personnel and scientific
3 expertise were shifted from one place to another during that
4 effort, what would be the potential impact for the near-term
5 goals?

6 General Hyten: So I have told the Secretary of Energy,
7 as well as the Administrator of the NNSA, that we cannot
8 move anything out of Los Alamos into Savannah River that
9 would take our eyes off of the 30 in 2026. And I am going
10 down to Los Alamos and sending my people down to Los Alamos
11 to make sure that that focus is always there because, again,
12 if we cannot get to 30 by 2026 at Los Al, we cannot get
13 there at all.

14 Senator Heinrich: Well, I appreciate your focus on
15 this effort. It is very welcome, and you are always welcome
16 at Los Alamos, as you know.

17 I also understand that the administration, General
18 Hyten, is currently reviewing whether it will seek to extend
19 the New START agreement that limits U.S. and Russian
20 strategic nuclear weapons to 1,550 treaty-accountable
21 warheads with additional limits, obviously, on delivery
22 vehicles. Is that information accurate? Is that correct?

23 General Hyten: We are looking at that. The President
24 asks me about that every time I see him. It is high on his
25 mind. Again, the issue there is the efforts that Russia has

1 going on right now that are not elements of the New START.
2 The torpedo, the cruise missile, the hypersonics all are not
3 part of that treaty. We believe that we would like to have
4 all nuclear weapons as part of a future strategic arms
5 treaty. That is my desire. So I want Russia in that
6 treaty. I want Russia in the INF Treaty, but if they will
7 not participate --

8 Senator Heinrich: I share that sentiment and certainly
9 hopefully we can move to a world where there is control on
10 more weapon systems rather than simply getting rid of the
11 tools that we have to, in theory, get something that is
12 perfect and more inclusive.

13 Does New START provide significant benefits to U.S.
14 national security interests? And if so, what would those
15 be?

16 General Hyten: So no treaty is perfect, and New START
17 is certainly not perfect. But what it gives me at STRATCOM,
18 it gives me two very important things. Number one, it puts
19 a limit on the basics of their strategic force. So I
20 understand what the limits are and I can position my force
21 accordingly so I can always be ready to respond. And maybe
22 as important, it also gives me insight through the
23 verification process of exactly what they are doing and what
24 those pieces are. Having that insight through my forces and
25 our partners is unbelievably important for me to understand

1 what Russia is doing. But we do not have insight into all
2 the other things that are going on right now. That will be
3 the challenge.

4 Senator Heinrich: If we were to lose that insight
5 without gaining more global insight, would that be a step
6 forward or a step back?

7 General Hyten: That is the balance that will be in the
8 decision that the country has to make as we go forward on
9 the benefits of New START. I would like everything on the
10 table.

11 Senator Heinrich: Thank you, General.

12 Chairman Inhofe: Thank you, Senator Heinrich.

13 Senator Sullivan?

14 Senator Sullivan: Thank you, Mr. Chairman.

15 And, gentlemen, thanks for your exceptional service of
16 both of you and all the hard work you are doing.

17 I want to talk about the Arctic and missile defense,
18 but I actually wanted just to add a little bit to the
19 exchange you had with my colleague, Senator Blumenthal, who
20 I have a lot of respect for and work with on a lot of
21 issues.

22 But, General O'Shaughnessy, let me ask. How many
23 Americans were killed by drug overdoses last year? Do you
24 know?

25 General O'Shaughnessy: Yes, Senator, I do. 72,000 in

1 the last year and 70,000 the year before.

2 Senator Sullivan: So more than all the men and women
3 killed in the Vietnam War just last year, 72,000 Americans.

4 General O'Shaughnessy: That is correct, sir.

5 Senator Sullivan: And that is opioids, heroin, meth.
6 How much of the heroin in America comes from Mexico?

7 General O'Shaughnessy: Sir, there is a significant
8 portion that comes up through the southern approaches.

9 Senator Sullivan: The number I have heard is over 90
10 percent.

11 General O'Shaughnessy: Yes, sir.

12 Senator Sullivan: Okay. So if that is not an
13 emergency, 72,000 dead Americans killed by opioids and
14 heroin in 1 year, I have no freakin' idea what an emergency
15 is. So that is just my view on that. Do you have any
16 comment on that? Is that an emergency, 72,000 dead
17 Americans?

18 General O'Shaughnessy: Sir, I would say that clearly
19 this is a national issue that we have to take on with a
20 whole-of-government approach.

21 Senator Sullivan: Yes, okay. Thank you.

22 Let me talk about the Arctic. By the way, General
23 O'Shaughnessy, I really want to commend you. You are by far
24 and away the NORTHCOM Commander who has actually put this on
25 the radar as a serious issue. Just today in your testimony

1 about so many of the threats operating both in the Arctic
2 and passing through I think is a wakeup call. This
3 committee has been doing a lot of work in that regard. Let
4 me ask a couple issues with regard to capabilities.

5 The Russians have a fleet of polar icebreakers. It is
6 40. They are building 14 more, including nuclear-powered
7 icebreakers, weaponized icebreakers. We are finally getting
8 our act together on that. Last year's NDAA authorized six.
9 This past appropriations bill recently signed by the
10 President has about close to \$700 million on the first one.

11 But do we have the required capabilities to answer the
12 Russian and, by the way, Chinese challenge in the Arctic?
13 And if so, what more capabilities do we need?

14 General O'Shaughnessy: Senator, you started with
15 icebreakers, and I will highlight that as well. On paper,
16 we have four icebreakers. In reality we have one that is
17 actually a polar level.

18 Senator Sullivan: We have two and one is broken.
19 Right?

20 General O'Shaughnessy: Two. They are sister ships.
21 We have one that is cannibalized and one that is --

22 Senator Sullivan: They were commissioned in the early
23 1970s.

24 General O'Shaughnessy: Yes, sir. They are 43 years
25 old.

1 Senator Sullivan: Have you ever seen those
2 icebreakers?

3 General O'Shaughnessy: I have been on the Polar Star.

4 Senator Sullivan: They are a disgrace to the men and
5 women who wear the uniform of the United States. Are they
6 not?

7 General O'Shaughnessy: Yes, sir. And just this year
8 alone, for example, as the Polar Star was going down to
9 Antarctica, she had multiple major casualties to include a
10 propeller shaft seal that went out that ended up in
11 flooding. Its incinerator actually caught on fire. So
12 there was a fire and flooding on that ship.

13 Senator Sullivan: Yes. I commend the men and women of
14 the Coast Guard who try to keep that ship afloat, but it is
15 a disgrace. You put men and women wearing the uniform of
16 our nation on a ship that is that old and dangerous.

17 But I interrupted you. Please go on.

18 General O'Shaughnessy: So in that regard, we are
19 working closely with the Coast Guard and, of course, the
20 U.S. Navy who is helping the Coast Guard get the six
21 icebreakers, at least three that will be polar-capable
22 icebreakers. And those are absolutely critical for us even
23 within the Department of Defense even though it is
24 ultimately for the Coast Guard to be able to clear the
25 access for us to be able to have operations in the Arctic.

1 So that is a high priority for us in U.S. Northern Command.

2 Senator Sullivan: Let me ask another question. Again,
3 this committee has focused a lot on the Arctic, which I
4 appreciate in a bipartisan way. We mandated this strategy
5 that had to come out of DOD. 2 years ago we mandated the
6 concept of a strategic Arctic port. The Secretary of the
7 Navy recently testified that we need a strategic Arctic port
8 to protect our interests in the Arctic. Do you agree with
9 him?

10 General O'Shaughnessy: I had a conversation with the
11 Secretary of the Navy just last week on this regard.
12 Clearly what we need -- I will use an example. We have a
13 requirement for fuel north of Dutch Harbor. Right now we do
14 not have access to that. Nome, if we were able to make Nome
15 a deepwater port, would serve that requirement.

16 Senator Sullivan: So you think we need that the way he
17 said that?

18 General O'Shaughnessy: I think we need to ultimately
19 have the ability to have the infrastructure to allow us to
20 do the operations. A deepwater port would certainly be part
21 of that going forward.

22 Senator Sullivan: General Hyten, let me ask you. You
23 have been a great advocate on missile defense. The Trump
24 administration recently put out its Missile Defense Review.
25 The President actually announced it at the Pentagon with the

1 Vice President and SecDef, the Secretary of Defense.

2 Again, this committee has been doing a lot of work in
3 regard to that.

4 Do you agree with the priorities outlined in the
5 Missile Defense Review? And can you just briefly talk about
6 what other areas we need and how Alaska is the cornerstone
7 of our nation's missile defense in terms of LRDR radar,
8 missile fields, and other areas that we need to continue to
9 build on?

10 General Hyten: So I agree with the findings of the
11 Missile Defense Review. The thing I liked most about the
12 Missile Defense Review it was not just a ballistic missile
13 defense review. It was a missile defense review looking at
14 the entire spectrum of capabilities that we have to have not
15 just against ballistic missiles but all the missile threats
16 that we face. It talked about getting left of launch, as
17 well as the response after the launch.

18 When you look at Alaska, all you have to do is look at
19 a globe and look at where Korea is and look at where the
20 United States is and you understand how important Alaska.
21 That is why we are putting the long-range discrimination
22 radar in Alaska. That is why that is going to be a critical
23 portion.

24 I continue to look at the radar architecture and be
25 concerned about vulnerabilities in that architecture. That

1 is why I think we need to augment the ground element, as
2 General O'Shaughnessy talked about earlier with the space
3 element, and then defend that space element as well. That
4 will allow us to see, characterize, and hopefully
5 discriminate the threat so we can make more efficient use of
6 our interceptors in Alaska.

7 Senator Sullivan: Thank you.

8 Thank you, Mr. Chairman.

9 Chairman Inhofe: Thank you, Senator Sullivan.

10 Senator Peters?

11 Senator Peters: Thank you, Mr. Chairman.

12 And, gentlemen, thank you for your testimony.

13 I want to pick up on a comment made by my colleague,
14 Senator Sullivan, about the Coast Guard icebreakers, and I
15 would be remiss if I did not take this opportunity to
16 mention we have a very aging fleet in the Great Lakes as
17 well. In fact, I was on a Coast Guard ship earlier last
18 week, and it was well over 50 years old. You can only keep
19 those things running so long and you start running out of
20 bubblegum and tape and you need to have it replaced. And so
21 hopefully we will be able to recapitalize that fleet in a
22 much broader way.

23 General O'Shaughnessy, you have a very big
24 responsibility and an important one with a very large AOR.
25 I am sure you have a lot of sleepless nights thinking about

1 various threats. What do you believe is the most
2 significant threat to your AOR? We have heard a number of
3 different ones here today, but I am just curious as to the
4 one that you think most about.

5 General O'Shaughnessy: Senator, I think right now it
6 in the near term is Russia. As we look at the advancement
7 that Russia has made, it is not only the capability and the
8 capacity that they have, but it is also the investments they
9 made, the training they are doing, and the patterns of
10 behavior that clearly show they intend to not only hold us
11 at risk but in conflict, they would actually take action on
12 the conventional side as well as on the nuclear side
13 potentially. And it is not just a cyber threat. This is a
14 kinetic threat with the cruise missiles that we talked
15 about. And we need to invest in our ability to defend if we
16 are going to be able to maintain our ability to defend. And
17 that is something that I think we need to have a sense of
18 urgency on.

19 Senator Peters: Well, I appreciate that. And that is
20 our number one threat to the homeland in your estimation.

21 However, we just recently deployed troops to our
22 southern border. And then as you know, as we have talked
23 about here, we have a national emergency that was declared
24 on February 15th.

25 My question to you, General, is we sent troops to the

1 border last October and into November. Could you tell us
2 how the threat environment has changed from November to
3 February? Have you seen an increased threat?

4 General O'Shaughnessy: Well, first, I would say for
5 the specific clarification of the threat we rely on our
6 Customs and Border Protection personnel in close cooperation
7 with them. So I would defer the specifics of that actual
8 threat to them.

9 What I will say it is a dynamic that we are seeing
10 where the response that we did in October was to a very
11 large caravan, and we were tasked to do a request for
12 assistance from the Department of Homeland Security to
13 respond very rapidly. And we did so. And I am very proud
14 of the response that was made with our military members
15 taking the orders they were given, the mission that they
16 were given, and executing it with the professionalism that
17 you would expect of our military members.

18 Senator Peters: I apologize, General. But just from
19 that point forward, what has happened since then to now?
20 What have you seen?

21 General O'Shaughnessy: Sir, we have seen the caravans
22 are not as large, but they are still out there. And I would
23 use the example of a couple weeks ago where we had to
24 respond to Eagle Pass where we had migrants show up there
25 where the Customs and Border Protection asked for our

1 assistance again to be able to harden the port of entry and
2 provide them assistance in their ability to respond.

3 Senator Peters: Well, I think we all agree that border
4 security is incredibly important. I do not think you will
5 find any disagreement with anybody on this committee. I sit
6 on the Homeland Security Committee as well. It is clearly a
7 nonpartisan issue. We all believe that borders must be
8 secure. It is a fundamental aspect of our government to
9 keep the homeland safe.

10 The question is usually how do you do that in the most
11 effective way and understand that we have to do it in a way
12 that is respectful of taxpayer dollars as well. And so that
13 I think is really the crux of what we are deciding right
14 now.

15 You mentioned that you were part of the consultation
16 with the administration as to the need for a national
17 emergency. I would assume, because of your repeated trips
18 down to the border, you have seen significant gaps from
19 Customs and Border Patrol. However, as you mentioned
20 earlier in your testimony, the DEA has come up with a report
21 that shows that most of the drugs, for example, that are
22 coming across the border are coming through ports of entry.
23 They are not folks walking across the open desert, and if
24 they are, there are probably much more effective ways to
25 track those folks down either with unmanned aerial vehicles,

1 sensors, National Guard troops. And I understand those
2 National Guard troops use Department of Defense drug
3 interdiction program money to go down there. And yet now I
4 hear that that drug interdiction money may be diverted to
5 something else.

6 Could you explain why you think drug interdiction money
7 is simply not an effective way of dealing with drugs coming
8 across the border and we should look at other avenues?

9 General O'Shaughnessy: Senator, what I would say is
10 that we have been in consultation with the Secretary of
11 Defense on exactly these issues. With our role within
12 USNORTHCOM, we have JTF-North, for example, that is
13 dedicated to the counternarcotics mission. That gets
14 funding through the 284 money that you are alluding to.
15 That is something that we are articulating up to the
16 Secretary of Defense with the aspect of saying we want to
17 preserve that ability for that particular program, as just
18 an example of what the inputs the Secretary of Defense is
19 getting as he works through what is the appropriate way to
20 work the funding and what is the report and response from
21 the Department of Defense to this demand signal.

22 Senator Peters: So you are recommending that that
23 money stay in place. That would not be diverted.

24 General O'Shaughnessy: I am talking about very
25 specifically the USNORTHCOM perspective of a very small

1 sliver of the overall funding piece that needs to be
2 considered within the broader context of the requirements
3 that the Secretary of Defense has been given.

4 Senator Peters: Great. Thank you.

5 Chairman Inhofe: Thank you.

6 Senator Hawley?

7 Senator Hawley: General Hyten and General
8 O'Shaughnessy, thank you for being here. Thank you for your
9 exemplary service, and thank you for the service of the men
10 and women under your respective commands.

11 General Hyten, I want to go back and talk about
12 something you have touched on several times already this
13 morning, the need for the modernization of our nuclear
14 arsenal. And I want to focus in on, in particular, one
15 aspect of that as it relates to low-yield tactical nuclear
16 weapons.

17 We know that Russia and China, our two peer or near-
18 peer competitors, have been investing significantly in these
19 types of weapons. Russia, for instance, in anti-ship cruise
20 missiles, nuclear torpedoes, nuclear depth charges. China,
21 other nuclear weapons designed for regional conflict like
22 the DF-21, DF-26 ballistic missiles. And for these reasons,
23 of course, the Nuclear Posture Review that was released last
24 February called for us, the United States, to deploy new
25 low-yield tactical warheads.

1 Can you explain? Do you agree with that assessment by
2 the Nuclear Posture Review? And can you explain why this
3 type of weapon might be important given the strategic
4 choices that we are now facing?

5 General Hyten: Senator, I do agree with the Nuclear
6 Posture Review. I had a lot of input into creation of those
7 recommendations. The thing I liked best about the Nuclear
8 Posture Review and our National Defense Strategy is it is a
9 threat-based document. And when you have a threat
10 specifically in Russia, which is my biggest concern, with
11 low-yield nuclear weapons where they have deployed an order
12 of magnitude more of those than we even have in our
13 inventory, we need to be able to quickly respond to that and
14 provide the President a spectrum of options in order to do
15 that. Now, we have low-yield nuclear weapons in the air leg
16 of our triad, but not in another leg of our triad. And I
17 talked about the attributes before about timely, responsive.
18 We want to make sure the President always has a responsive
19 option to respond.

20 So we are recommending that, but it is important to
21 note that is inside the New START treaty. Russia is
22 building those outside the New START treaty. We are going
23 to take missiles off of the submarines, take big weapons off
24 the submarines, put little weapons on the submarine, put it
25 back on. We will still have 1,550 deployed nuclear weapons,

1 but the total yield will be smaller. I do not think that is
2 escalatory in any way. I think that will allow the
3 President to have options to manage the threat effectively.

4 Senator Hawley: Thank you for that.

5 I wonder if you could go on, General Hyten, and just
6 explain how it is that deploying new low-yield nuclear
7 weapons can, if we do it effectively, if we do it right,
8 actually reduce the risk of nuclear conflict.

9 General Hyten: Because the adversary watches exactly
10 what we have and then they look for gaps. And if they think
11 they can deploy a nuclear weapon and get away with it, they
12 very well may do that. The Russian doctrine is escalate to
13 win, and if they execute that doctrine as they have said --
14 and I have to believe them at their word -- if they execute
15 that doctrine as they have said and they may consider if
16 something is going bad on the battlefield somewhere to
17 deploy a low-yield nuclear weapon and the United States will
18 not respond because if we do that, we have to respond with a
19 high-yield nuclear weapon, they might take that chance. But
20 if they see we have a low-yield nuclear weapon, they will
21 not go that direction. That is the whole theory of
22 deterrence is if they see an effective response to that,
23 they will not use that weapon.

24 Senator Hawley: Given that, what role, General, what
25 place do you think that the use of these tactical low-yield

1 nuclear weapons ought to have in our own sort of strategic
2 doctrine? I think you have touched on it, but explain a
3 little bit more.

4 General Hyten: So the most important thing to realize
5 is they are deterrent weapons. The first use of a deterrent
6 weapon is to make sure the weapon is not used against you.
7 Now, in order for that to happen, the adversary has to look
8 at that and see a rational response. That would be the
9 second priority is to use that in response to that option.
10 But the goal of that weapon is to make sure that weapon is
11 not used on you.

12 Senator Hawley: This is particularly important, is it
13 not, General, as we face peer competitors, near-peer
14 competitors who may well have significantly larger
15 conventional military forces than we do so that we do not
16 find ourselves in a position where a disadvantage that we
17 may have with conventional forces tempts aggression. Is
18 that fair to say?

19 General Hyten: So I never want to be at a disadvantage
20 in any element of our architecture. I mean, I think it was
21 Senator Inhofe, Senator Reed talked about disadvantages or
22 places our adversaries are ahead of us. As far as I am
23 concerned, that should never happen in the United States of
24 America. But it is happening. So I never want to be there.

25 On the conventional side, we are still the most

1 dominant conventional force on the planet. And if we can
2 move our capabilities into an operation, we will dominate
3 the battlefield today. That is where the threat of a low-
4 yield nuclear weapon becomes at risk because an adversary
5 may see the opportunity to deploy conventional forces and
6 have that short-term advantage, but eventually that
7 advantage will turn and that is where that escalation risk
8 exists and we have to be able to respond.

9 Senator Hawley: Very good. Thank you so much,
10 General.

11 Thank you, Mr. Chairman.

12 Chairman Inhofe: Thank you, Senator Hawley.

13 Senator Kaine?

14 Senator Kaine: Thank you, Mr. Chair.

15 And thanks to our witnesses.

16 I want to return -- I am sorry that Senator Sullivan
17 left. I want to return and say that 72,000 deaths, overdose
18 deaths, is an emergency. 40,000 people died in 2017 by gun
19 violence in the United States, murders and suicides. That
20 would seem to me to be an emergency.

21 The question is not whether 72,000 drug deaths or
22 40,000 gun deaths are an emergency. The question is should
23 we allow a President to unilaterally declare an emergency
24 and to take \$6 billion out of the Pentagon's budget to apply
25 to a situation, General O'Shaughnessy, that you said the

1 threats to our nation from our southern border are not
2 military in nature. So the question that Congress and the
3 Senate is going to grapple with in the next couple weeks is
4 will we allow a President to declare that drug overdose
5 deaths are an emergency, but the threat is not military and
6 still will take \$6 billion out of the defense budget to deal
7 with it because if we set that precedent, I could certainly
8 foresee a day when a President is going to say 40,000 gun
9 deaths a year are an emergency, and why do we not take the
10 money out of the Pentagon budget to deal with that? If we
11 let the President take \$6 billion out of the Pentagon's
12 budget to deal with a non-military threat of drugs, then you
13 guys are going to see money taken out of your budget for
14 other emergencies as well. And that is the vote that we are
15 all going to be casting in the next couple of weeks.

16 General O'Shaughnessy, I applaud the honesty of your
17 written testimony. It is 23 pages of testimony. The first
18 section of it is threats, five pages. You identify six
19 threats, nothing to do with the southern border. The second
20 section is defending the homeland, eight pages of testimony,
21 four different domains. The last is southern approaches,
22 and you acknowledge that it is not a military threat. And
23 you focus in your three paragraphs of testimony on illegal
24 narcotics.

25 So the question we are going to have to vote on is do

1 we want the President to take Pentagon money for a threat
2 that you acknowledge is non-military in nature.

3 The President proposes \$6 billion. The first chunk is
4 \$2.5 billion of drug interdiction money. And the Pentagon
5 account on drug interdiction does not have \$2.5 billion in
6 it. Right now, an ABC news this morning article -- one of
7 the two Pentagon funds the Trump administration plans to tap
8 to help secure the southern border after declaring a
9 national emergency has nowhere near the \$2.5 billion that is
10 projected for use. It has \$85 million, not \$2.5 billion.
11 It has \$85 million that is available. And so the Pentagon
12 is saying that they are going to have to reprogram or shift
13 money from other accounts into the account to make the \$2.5
14 billion.

15 I gather, General O'Shaughnessy, from your testimony
16 earlier you do not yet know where the Pentagon plans to find
17 the money to shift into the drug interdiction account to
18 then take to use for the President's emergency. Is that
19 correct?

20 General O'Shaughnessy: That is correct, Senator. That
21 is beyond the purview of USNORTHCOM. That is something that
22 OSD is working with the joint staff.

23 Senator Kaine: Within the Pentagon but not NORTHCOM.

24 General O'Shaughnessy: That is correct.

25 Senator Kaine: Secondly, I want to make sure I

1 understand your testimony. So that is the \$2.5 billion.
2 The \$2.5 billion to be taken is a fund that has \$85 million
3 in it. And so there is apparently an attempt to shift other
4 Pentagon monies into it. We do not yet know where it will
5 come from.

6 The second chunk is \$3.5 billion out of MILCON,
7 military construction, projects. General O'Shaughnessy, in
8 NORTHCOM I gather there are ongoing military construction
9 projects as well as projects that you would like to do that
10 either are further out or not yet funded. Correct?

11 General O'Shaughnessy: That is a true statement,
12 Senator.

13 Senator Kaine: And I gather from your testimony you
14 have not yet been asked to provide a list of NORTHCOM MILCON
15 projects that you would propose or you would recommend to be
16 reduced, eliminated, or delayed. Is that correct?

17 General O'Shaughnessy: We are actually working very
18 closely with the Secretary of Defense's office with respect
19 to the prioritization of that, not necessarily specifically
20 related to this issue, but we have had communication with
21 them with our prioritization of those MILCON dollars.

22 Senator Kaine: I want to make sure I understand this.
23 Obviously, NORTHCOM is always going to have a list of MILCON
24 projects because we are working on the NDAA and that will be
25 in it. So you will always have a list. But have you been

1 asked specifically in connection with this proposal to take
2 \$3.5 billion out of MILCON, give us your recommendations as
3 the NORTHCOM Commander about projects that should be
4 reduced, eliminated, or delayed?

5 General O'Shaughnessy: Again, Senator, I believe that
6 is the process that is actually ongoing this very week, and
7 that is why I was really pleased that the Acting Secretary
8 of Defense took the time to go down, see firsthand, and then
9 have a personal insight as he works through those very
10 difficult challenges and decisions that he will make as he
11 ultimately responds to the direction of the President.

12 Senator Kaine: Have you made recommendations or not?
13 Has NORTHCOM made recommendations about MILCON projects that
14 should be reduced, eliminated, or delayed?

15 General O'Shaughnessy: We have not specifically to
16 this particular effort as of yet, but it is still premature
17 and pre-decisional at this point.

18 Senator Kaine: Thank you, Mr. Chair.

19 Chairman Inhofe: Thank you, Senator Kaine.

20 Senator Blackburn?

21 Senator Blackburn: Thank you, Mr. Chairman.

22 And thank you all for being here.

23 I know that the hypersonics have been discussed. And,
24 General Hyten, I wanted to come back to that issue. It is
25 important to us in Tennessee because of Arnold Air Force and

1 the work that has been done there. They have been really a
2 key contributor, if you will, to our nation's aerospace
3 program. They are very important to us in Tennessee, and we
4 are pleased that they are there. And you have discussed
5 some of the program and the advances there, the operational
6 capabilities.

7 But I want to come back to one thing that they have
8 mentioned a couple of times, and it is having both the
9 talent and the numbers of individuals to really push forward
10 into the hypersonics and into that capacity and, General
11 O'Shaughnessy, as you said, 21st century warfare and having
12 what is there. So let us take just a minute and focus on
13 the talent and the numbers to deliver on that mission.

14 General Hyten: So, Senator, Arnold Air Force Station
15 is a treasure to this country. The wind tunnel capabilities
16 that they have there are unique, and they allow us to do
17 things that we really cannot do anywhere else.

18 We have a challenge at Arnold and a challenge across
19 our DOD labs and across our Department of Energy labs in
20 attracting, recruiting, and retaining the kind of
21 engineering talent that is required to move these kind of
22 programs forward.

23 What I have learned, though, is when you can explain to
24 the youth of America the kind of work that you can do by
25 coming to places like Arnold, they will come. They will

1 come because they love to do that kind of fascinating work.
2 That is the same with Los Alamos or Livermore or Sandia or
3 Rome Labs or any of our national labs. The key is then to
4 be able to retain them because they will be trained and they
5 will learn unique skills and they can go out and do
6 anything. So we have to make sure that we have the
7 compensation that matches their talent, that we compete with
8 the civilian sector in doing that. But the most important
9 thing is we can provide them fascinating work.

10 The one challenge I would say that we have to work at
11 together -- and the Department of Defense is looking at
12 this; Congress is looking at this -- is the time it takes
13 some of these employees to get their clearances has been
14 very de-motivational for new employees and it is causing
15 some of them to leave because it takes years in some cases
16 for them to get the high level security clearances to work
17 those issues. Now, the Secretary, Secretary Mattis, now
18 Secretary Shanahan, have looked at this issue directly, and
19 they are working it directly with the broader government.
20 But that is an issue that we want to continue to take on.

21 Senator Blackburn: Kind of in the same vein, let us
22 talk about USSPACECOM and that capacity, that mission, the
23 transition of that mission. How are you approaching this so
24 that going from STRATCOM to SPACECOM that is a seamless
25 transition, and that we keep our focus on those threats that

1 are coming to us that we are going to need to -- the
2 adversary threats we will need to address?

3 General Hyten: So two pieces of the answer to that
4 question, Senator, is that, number one, I am still the
5 senior military person in space still serving active duty.
6 And so I care desperately about space. But as the Commander
7 of Strategic Command, space will never be my number one
8 priority. In fact, right now it is about number three. The
9 nuclear modernization and operations is number one. Nuclear
10 command and control is number two. Space is my third
11 priority. And the importance of space in today's day and
12 age, that is not good to have that priority. So we need a
13 command that focuses on that and the commander of that
14 command, whoever that person is, he or she must have a focus
15 on space 24 hours a day, 7 days a week. And that is why we
16 are standing up a Space Command.

17 One of the ways we are going to make sure we do that
18 because I was around when we transitioned the old U.S. Space
19 Command to U.S. Strategic Command in 2002 -- now we are kind
20 of going back the other way. And I watched us almost break
21 the space mission when we did that because we just
22 haphazardly slapped billets and said these 500-plus billets
23 are going to move from Colorado to Omaha, and I will just
24 say the people did not come with them automatically.

25 So we are going to continue to perform a lot of the

1 mission for Space Command in the STRATCOM headquarters. It
2 will be Space Command East. Omaha is east in this case if
3 it is in Colorado. If it is in Florida, it will be Space
4 Command West. If it is in Alabama, it will be Space Command
5 West. Wherever it ends up, we are going to continue to
6 support that because we do not know the final destination of
7 where that is going to be. So we cannot break the mission
8 because we have threats to deal with today. So we will make
9 sure we cover both of those issues in dealing with the
10 standup of Space Command.

11 Senator Blackburn: My time has expired. And I am
12 going to submit for the record a QFR for you on supply chain
13 integrity dealing with the space systems. And I thank you
14 each for your service and for being here today.

15 General Hyten: Thank you, ma'am.

16 Chairman Inhofe: Without objection, it will be part of
17 the record. Thank you.

18 [The information follows:]

19 [COMMITTEE INSERT]

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1 Chairman Inhofe: Senator Warren?

2 Senator Warren: Thank you, Mr. Chairman.

3 And thank you both for being here today.

4 Senator Heinrich asked about New START, and I just want
5 to go back and dig a little deeper, if I can, on that.

6 General Hyten, in March 2017, you testified in front of
7 the House Armed Services Committee, and you said -- and I
8 quote here -- I have stated for the record in the past and I
9 will state again that I am a big supporter of the New START
10 agreement. Is that still your view?

11 General Hyten: It is still my view. I have said it
12 multiple times. I am a big supporter of the New START
13 agreement. I want ideally in my view all nuclear weapons to
14 be part of the next phase of New START and not just the
15 identified weapons that are in the New START treaty now.

16 Senator Warren: I understand you would like to see an
17 expanded New START. Can you just say a word about why you
18 think New START is so important?

19 General Hyten: It gives me two things at STRATCOM.
20 Number one, it gives a cap on their strategic baseline
21 nuclear weapons and their ballistic missiles, both submarine
22 and ICBM, as well as their bombers so I understand what that
23 is. And also, just as important, it gives me insight
24 through the verification regime to their real capabilities.
25 The INF Treaty, for example, does not have a verification

1 regime anymore. The New START treaty does, which gives me
2 insight into the Russian capabilities. Those are hugely
3 beneficial to me. They just have to be balanced against all
4 the other things Russia is doing outside of the treaty.

5 Senator Warren: Right.

6 Actually can you just say a word more about that, about
7 the inspection process and what benefit that gives to the
8 United States?

9 General Hyten: So both Russia and the United States,
10 as party to that treaty, have the ability to declare a New
11 START inspection. The Russians can land in our country, and
12 I get a notification that they landed at a port of entry
13 somewhere. San Francisco is one that they land at
14 frequently. And then once they land there, they can declare
15 wherever they want to go in this country to look at our
16 nuclear force. We have the same ability in Russia to land
17 at a port of entry in Russia and then go wherever we want to
18 look at their capabilities. They open it up to verify that
19 the right number of weapons are there, the right kind of
20 weapons are there. That gives us insight into those
21 capabilities, gives them insight into our capabilities and
22 improves our overall strategic stability.

23 Senator Warren: And so I presume, based on what you
24 have said, that if we either lost that capacity or the
25 capacity was greatly diminished, that you would like to try

1 to find another way to be able to conduct that same kind of
2 inspection and know what is going on.

3 In this setting, how confident are you that we could
4 replace those inspections, the data exchanges, and the
5 notifications that are now in New START with other
6 verification tools in a timely and cost effective manner?

7 General Hyten: So we have very good intelligence
8 capabilities, but there is really nothing that can replace
9 the eyes-on/hands-on ability to look at something. And so
10 we have to do that. But there are elements that they have
11 that are not elements of the New START treaty that we do not
12 have this insight into.

13 Senator Warren: I understand that you want to see this
14 expanded. I am just trying to hang onto what we have got
15 and then talk a little bit about the expansion.

16 Let me just ask, in your view would it be easier or
17 harder to provide an effective deterrent without a
18 verifiable arms control agreement such as New START in
19 place?

20 General Hyten: So I believe in any situation I can
21 foresee in the next 10 years I can provide an effective
22 defense as long as I have a capable triad with the weapons
23 that we have defined. I get concerned 10 years and beyond
24 that with torpedoes, with cruise missiles, with hypersonics
25 that they could go a completely other direction that we

1 would have difficulty. But I do not have any problem
2 standing here and saying I can defend this nation today and
3 I think the commander after me can, but I worry about the
4 commander after the commander after the next.

5 Senator Warren: So the question I am trying to ask,
6 though, is it easier or harder when you have got the tools
7 available to you in New START.

8 General Hyten: Today it is absolutely easier.

9 Senator Warren: That is the part I am going for. So
10 this is a part of what you are able to accomplish.

11 Do you support the extension of New START?

12 General Hyten: So I have stated for the record in the
13 past -- I have not changed my opinion -- I support New
14 START, but you have to have a partner that wants to
15 participate in New START.

16 Senator Warren: I know.

17 General Hyten: It is going to be like INF. We have to
18 have a partner that can participate. It is a two-party
19 treaty. And if the Russians continued to build the
20 capabilities outside the New START treaty that are not
21 accountable and will not come to the table under the treaty
22 -- there is an element of the treaty that says if there is a
23 new strategic arm that appears, they should bring that to
24 the table and discuss it. If they will not do that, then
25 that causes me to have concerns.

1 Senator Warren: And I appreciate that. I think you
2 are exactly right when you identify who is going to come to
3 the table. As you know, New START expires in just 2 years.
4 The administration has already ripped up another nuclear
5 arms treaty with Russia, the INF Treaty, and it appears to
6 be running out the clock on the New START without any plans
7 for a follow-up agreement. If this happens, this is going
8 to be the first time since 1972 that there are no arms
9 control agreements between the United States and Russia.

10 My view is we have a moral and strategic responsibility
11 to do everything in our power to prevent a new nuclear arms
12 race, and at a minimum I think that means working with
13 Russia to try to get back to the negotiating table, try to
14 get them back into compliance with the INF Treaty and
15 working on a New START treaty. This just seems to me to be
16 common sense arms control and to make America safe.

17 General Hyten: So I pay close attention to what the
18 State Department is doing, and they are reaching out to the
19 Russians and the Russians are not answering favorably.

20 Senator Warren: Well, I hope we can get them to the
21 table, and I am glad to hear that you are in favor of that.
22 Thank you.

23 Chairman Inhofe: Thank you, Senator Warren.

24 Senator Cramer?

25 Senator Cramer: Thank you, Mr. Chairman.

1 Thank you, Generals, both of you, for your service and
2 for your testimony today.

3 Since we talked a couple of weeks ago, General Hyten, I
4 have completed my tour of bases in North Dakota. I went to
5 all of them. And I want you to know that while Minot and
6 Grand Forks were grateful, the Cavalier was especially
7 grateful that you asked specifically about them, and it was
8 very encouraging I will tell you. I am new to this
9 committee, as you know, and I have sat through enough
10 briefings that have made me adequately frightened, but I
11 feel much better having gone to the bases, including our
12 National Guard ISR and Global Hawk bases. It is fantastic.

13 With regard to modernization, General Hyten, I agree
14 with you, that one of the things that concerns me is not so
15 much a capability of modernizing, but the speed with which
16 we are able to do it. When we think about the history of 60
17 years ago being able to build in 5 years, not just develop
18 but create, produce hundreds of ICBMs, I do not even know if
19 we could do that today. The timeline scares me.

20 Do you have any specific thoughts on the bureaucracy
21 itself and how we can improve the bureaucracy and then, as I
22 always like to say, what we as policymakers can do to help
23 either knock down the hurdles or send the right signals so
24 that we can meet the timeline that is facing us?

25 General Hyten: So, Senator, thanks for going to Minot,

1 Cav, and Grand Forks. They are pretty special places. And
2 when you see the people, you should feel very, very good
3 about this country. They are amazing people.

4 But when you look at the challenges that we face in the
5 future, I think Senator Peters asked General O'Shaughnessy
6 what kept him awake at night, and General O'Shaughnessy
7 answered Russia. What keeps me awake at night mostly is
8 actually ourselves because somehow we have lost the ability
9 to go fast. I do not know where we lost that, but somewhere
10 we lost the ability to go fast, and we better regain that
11 because right now we are dominant. And I can guarantee you
12 today that STRATCOM can keep this nation secure, but we have
13 to make sure that is the case. So we have to figure out how
14 to go fast again. And so I can give you a lot of
15 recommendations. I will be glad to do it offline, but I
16 will give you one here.

17 The one recommendation I have is that we have to, once
18 again, empower the people that actually build stuff. We
19 have to empower in the military the O6 program directors.
20 That is colonels and Navy captains that actually build
21 things. Over the last 25 years, we have taken all the
22 authorities away from them, and in many cases, they are not
23 even staying in the military anymore. They go out to do
24 other things in industry. But those engineers that want to
25 go build things -- that is what built this amazing force

1 that I get to command today. So we have to go back again
2 and do everything we can to empower down at that level them
3 to make the decisions, how to spend the money, how to
4 deliver the capability, how to test the capability, all
5 those kind of issues because they will do it more
6 efficiently than when they have to go through 18 layers of
7 bureaucracy above them.

8 And, oh, by the way, if they do fail, we will fire them
9 and find somebody else. That is the other thing that is
10 beneficial about having the authority in the right place.
11 Now you know who is responsible. So right now, it is almost
12 impossible to tell who is even responsible because there are
13 so many layers of bureaucracy.

14 Senator Cramer: So can Congress do something about
15 that or is this --

16 General Hyten: Congress has started down that path.
17 Your committee, as well as the House Armed Services
18 Committee, in the last 2 years have made significant
19 improvements in moving things back from the Office of the
20 Secretary of Defense back down to the services. I have now
21 watched the services both on the Air Force and the Navy
22 side, which are mostly in my command -- I do not watch the
23 Army as close -- move things back out again to the O6's. So
24 continuing that process, continuing to look at that through
25 this committee and to push those authorities back down -- I

1 think that is the biggest thing that would help.

2 Senator Cramer: General O'Shaughnessy, could you
3 comment on, I guess, the same basic principles within the
4 context of your command because, again, having been in Grand
5 Forks and Cavalier and even Fargo, frankly, with the Happy
6 Hooligans and their ISR work, I find some of the greatest
7 innovators in the world, and I just want them to be
8 empowered.

9 General O'Shaughnessy: I absolutely agree with
10 everything General Hyten said. And as you alluded to, I
11 think we have to change the way that we are thinking about
12 advancing our capabilities, and we cannot go about it the
13 way that we have in the past if we are going to keep pace
14 with our adversaries.

15 Senator Cramer: Maybe in the remaining seconds,
16 General O'Shaughnessy, I would ask for one clarification
17 with regard to the debate about the southern border and your
18 role in advising or in providing consultation to the
19 President. Do you feel like you and the others, but you
20 specifically, have been adequately listened to and that the
21 information and intelligence and insights that you provided
22 to the President and the others around him have been
23 appropriately taken in and considered before making this
24 whole-of-government decision?

25 General O'Shaughnessy: Thank you for asking that,

1 Senator. Yes, I do I believe for a variety of forums,
2 whether it be directly with the President or whether it be
3 through the Secretary of Defense with the Chairman, whether
4 it be actually going hands-on and actually seeing what is
5 going on there. I feel very comfortable that the best
6 military advice from USNORTHCOM has been put forward and has
7 been in the proper forums.

8 Senator Cramer: Thank you.

9 Thank you, Mr. Chairman.

10 Chairman Inhofe: Thank you, Senator Cramer.

11 Senator Duckworth?

12 Senator Duckworth: Thank you, Mr. Chairman.

13 Gentlemen, thank you so much for your time today and
14 your testimony and your willingness to answer extensive
15 questions.

16 General Hyten, in your testimony, you discuss the
17 effectiveness of our legacy nuclear command, control, and
18 communication systems and the need to pursue updates to meet
19 evolving needs.

20 Can you discuss the implications of building a new
21 system in light of the rapidly changing technologies like
22 AI, quantum computing, and machine learning? And also could
23 you elaborate, to the extent that you are able to in an open
24 setting? Are we building an adaptable architecture with the
25 workarounds necessary to adapt a future tech and

1 modernization?

2 General Hyten: So, Senator, over the last 6 months, I
3 have dug into that very deeply, much deeper than I would
4 ever expect a combatant commander to have to do that. That
5 is because on the 3rd of October, the Secretary of Defense
6 put me in charge of the nuclear command and control
7 enterprise. And I am responsible for operations
8 requirements and system engineering of that enterprise now.
9 And so I felt the need to go out and look at how we are
10 doing today, and I understand that pretty well. But then I
11 have to define now how we are going to do it in the future
12 in this very challenging cyber threat environment that we
13 are walking into.

14 So I have some ideas. I have formed those ideas as I
15 have gone through. Basically the broad-based structure of
16 that idea is to develop a number of pathways for a message
17 to get through that is nearly infinite that nobody can ever
18 figure out exactly where it is or deny the ability for that
19 message to get through. That is the way to do things in the
20 future, and I think we will have the means to do that. We
21 would have to talk about it on a much more classified level
22 to get into the details.

23 So I have gone out to industry. I have gone out to the
24 federally funded research and development corporations, and
25 I have asked them to come in with ideas. Just last week,

1 they delivered those ideas to me. We are going to now
2 evaluate those ideas and come up with a broad-based set of
3 mission needs that we need to explore, and then I will work
4 back with industry to figure out how to do that. And then
5 the services, the Army and the Navy in this case, will
6 actually build them.

7 Senator Duckworth: Have you thought about also going
8 out to some of our national laboratories? I know they fall
9 under the DOE, but in Illinois, we have both Fermi Lab and
10 Argonne with quantum computing capabilities, currently
11 pretty high up on the spectrum of quantum computing
12 capabilities. But without major investments, we are going
13 to fall behind in that.

14 General Hyten: You bet. And I have gone to the
15 national labs. I went to the national labs, the federally
16 funded research and development corporations, the university
17 affiliated research corporations, all those elements looking
18 for best ideas. And I did that individually because I found
19 when I brought everybody together in a room, the answer
20 ended up looking like it used to, and when I kept everybody
21 separately everybody had very, very innovative answers. So
22 now we are going to have to figure out how to capture this
23 innovation and move forward effectively. But I had reached
24 out to the DOE labs, as well as the UARCs and FFRDCs.

25 Senator Duckworth: Thank you.

1 I also want to delve a little deeper with both of you
2 into something General O'Shaughnessy mentioned in his
3 written testimony. General, when discussing the potential
4 cumulative effects of Chinese and Russian advanced
5 technologies such as hypersonics and cyber efforts -- and
6 you have mentioned them here -- you said -- and I quote, --
7 collectively these advanced technologies could be capable of
8 creating strategic effects with non-nuclear weapons
9 potentially affecting national decision-making and limiting
10 response options in both peacetime and crisis.

11 Now, we are very focused and we have had quite a
12 discussion today on nuclear strategic deterrence at the
13 moment which, to be clear, I do not have a problem with
14 that. I, in fact, do think we need to modernize our nuclear
15 arsenal. But my concern and question for you both is around
16 our own non-nuclear strategic deterrence.

17 Would you increase investments on our end whether in
18 hypersonics, cyber, conventional prop, global strike
19 weapons, other new technologies in an effort to reach a
20 level providing a credible deterrent against Chinese and
21 Russian nuclear activities as we suggest they may be
22 attempting with us? And how do we balance that with the
23 real need to continue our investments in the nuclear realm?

24 General O'Shaughnessy: One, thanks for the opportunity
25 to respond to that question because I think it is right in

1 line with the NDS, and as the NDS has articulated, the
2 changing security environment -- one of the things that has
3 really fundamentally changed is the strategic deterrence as
4 it applies to the conventional aspect. And so as we look at
5 that, as General Hyten mentioned, the cost imposition -- in
6 other words, we have to be able to impose a cost if we are
7 going to be able to deter. But also especially on the
8 conventional side, you have to be able to actually deny them
9 their objectives. And so it is a combination of both of
10 those together, imposing costs, denying their objectives,
11 and then be able to credibly communicate that to them so
12 they understand from a deterrence standpoint that it
13 absolutely is not even worth going down that path.

14 So in order to do that, though, it is going to take an
15 investment in just the areas that you mentioned. We have to
16 have our own hypersonic capability and we also have to have
17 the ability to defend against those advanced threats.

18 Senator Duckworth: And we are able to reach those
19 capabilities if we make these investments?

20 General O'Shaughnessy: If we make those investments is
21 the key part of your statement. Yes, ma'am.

22 Senator Duckworth: General Hyten?

23 General Hyten: And I agree with General O'Shaughnessy.

24 I think one of the most important things you said,
25 though, is that you recognize that strategic deterrence in

1 the 21st century is wholly different than it was in the 20th
2 century. It is not just about nuclear weapons. It is
3 multi-polar now. It is not just the Soviet Union. It is
4 Russia, China, North Korea. You have to worry about all the
5 domains. You have to worry about nuclear, space, cyber, and
6 conventional. And you have to figure out how to integrate
7 all those together.

8 At STRATCOM, we formed an academic alliance with 35
9 different universities to try to get them to start thinking
10 about what is really needed in order to do this, not just on
11 the technology side, but a policy and a strategy side as
12 well.

13 Senator Duckworth: Thank you, General.

14 Thank you, Mr. Chairman.

15 Chairman Inhofe: Thank you, Senator Duckworth.

16 Senator Perdue?

17 Senator Perdue: Thank you, Mr. Chair.

18 And thank you, gentlemen, for being with us today.

19 General Hyten, I love the way you summarize this.

20 Every time you come before us, you just get right down --

21 you do what my wife asked us to do when we were raising

22 kids: major on the majors. And thank you for that. But

23 recap triad, command and control, Space Command are your top

24 three priorities. I want to focus on the first one.

25 You are facing five threats across five domains. I

1 could not agree more that it is an integrated effort now.
2 It is not just about the nuclear capability. Given that,
3 though, the most salient comment I have heard today is we
4 have lost our ability to go fast. And I lived in Asia. I
5 worked in China a good bit in my career. And I can tell you
6 they can beat us to the core on every single development
7 with our technology, with their technology. It does not
8 matter.

9 I want to focus on one part of our nuclear triad. I
10 want to get to a second question very quickly. The Ohio
11 class has served us well for decades, 4 or 5 decades in many
12 cases, but it is aging. And I know we have got the Columbia
13 class coming. Secretary of Navy Spencer said recently the
14 Columbia class submarine is the most important acquisition
15 program the Navy has today. Do you agree with that, sir?

16 General Hyten: I do. And I cannot tell you how
17 thankful I am for Secretary Spencer and CNO Richardson both
18 making that statement and putting that as a priority.

19 Senator Perdue: So we are going to procure, as I
20 understand the schedule, the first Columbia class in fiscal
21 year 2021, and it will take us to fiscal year 2031 before
22 that first delivery will be taken in the first, I guess,
23 trial will be done on that boat. Is that right?

24 General Hyten: Operational capability by then.

25 Senator Perdue: So how long does it take China to do

1 the same thing?

2 General Hyten: Actually on the submarine side, it has
3 been taking about just as long.

4 Senator Perdue: But that is going to change between
5 that and 2031.

6 General Hyten: That will change because you understand
7 that we are experienced in submarines and China is still
8 fairly new in developing those capabilities.

9 Senator Perdue: Can you give us an update on the
10 development of that Columbia class effort, and is 2031 still
11 an appropriate date to expect on that?

12 General Hyten: So I have done a deep dive look into
13 every element of the triad, again kind of an odd thing for a
14 combatant commander to do, but it is because I am so
15 concerned about it I wanted to look in depth into that
16 issue. So I have gone with Admiral Caldwell, the head of
17 Navy nuclear reactors, up to the shipyard at Electric Boat
18 and done a deep dive.

19 And when I went through that -- I have to be honest,
20 Senator -- I was very concerned because there was so little
21 margin in the overall schedule. And then over the last
22 year, as the Navy has informed you guys, we have had some
23 issues with welding --

24 Senator Perdue: The missile silo in particular.

25 General Hyten: It is the missile tubes, absolutely.

1 And because of that, a lot of that margin that was not too
2 much before is even less now. It is still on the positive
3 side, but if you are 10 years away and you are eating margin
4 and not putting margin in, that causes me concern.

5 Senator Perdue: Can you take a question away for the
6 record to help us understand what we could do to shorten
7 that gestation period?

8 General Hyten: You bet. I would be glad to come and
9 talk to you or take it for the record, either one.

10 Senator Perdue: And I would like an update on the Hong
11 20. This is the new long-range nuclear bomber which is
12 effectively -- we will go to China now -- their first true
13 triad capability, if I understand that correct.

14 General Hyten: Absolutely. And that discussion is
15 better to have in a classified setting.

16 Senator Perdue: I appreciate that and I look forward
17 to that.

18 General O'Shaughnessy, I was just at the southern
19 border. I agree with everything you just said. I know you
20 were just there. I personally believe that we have got a
21 human tragedy going on on the border with people coming from
22 all parts of the world, not just Central America. But the
23 bigger crisis is the drug traffic that is coming through
24 there.

25 The first thing I want to get on the record, though,

1 there have been three places where a wall has been built:
2 California, Arizona, and Texas. And in those areas, the
3 numbers I see is that human traffic across those borders
4 where that barrier is in place dropped 95 percent. Do you
5 agree with that?

6 General O'Shaughnessy: Senator, I do. And I will just
7 add again within the last week, I have been twice to El Paso
8 meeting with the Secretary Chief, meeting with the
9 individual Border Patrol agents, and they confirm exactly
10 that. When a barrier is in place, as long as it has cover
11 -- in other words, you are actually having some sensing of
12 it -- and you have the ability to respond to it, it totally
13 changes the flow and they can funnel it into the areas that
14 they want to. And CBP personnel to a person talked about
15 the effectiveness that is part of their family of systems.

16 Senator Perdue: Sir, thank you for your troops' help
17 down there. I saw some of those troops and the support that
18 they are giving CBP is really remarkable.

19 I was in the McAllen sector in Texas. It is the most
20 active sector we have now. So what we are doing is put
21 barriers up. We pushed the activity to other sectors. So I
22 went to what I think is the most active sector. They were
23 telling me that an individual coming across -- the two
24 cartels in Mexico that are at war controlling that
25 particular sector are very powerful. They pay \$8,000 per

1 person to the cartel to come through. The people that were
2 arrested the night I was there -- on patrol were the CBP --
3 had no money in their pocket, not a dime. They each had a
4 burner phone with one number in it, and it was for a support
5 person in the U.S. that was part of the infrastructure here.

6 My question for you is, can the U.S. military on the
7 drug side of this -- if it is a \$2 billion business with
8 regard to human traffic, it is more than \$30 billion just in
9 that sector for drugs coming through. There was more
10 fentanyl coming through that sector last year, enough to
11 kill every man, woman, and child in America.

12 My question, sir, is what can the U.S. military do
13 there that is within the realm of your responsibility as
14 protectors of our country?

15 General O'Shaughnessy: Sir, thank you for the question
16 and to allow us to highlight some of the efforts that are
17 ongoing and will continue.

18 Our JTF-North is actually about 190 individuals that
19 are focused just exactly 100 percent on this. Some of the
20 things we are able to provide are -- especially important is
21 the intel aspect, understanding the networks. We understand
22 networks. We have been doing this for decades overseas. We
23 understand how to get to the networks and then partner with
24 our law enforcement agency partners to be able to actually
25 get after those networks in ways that they may not have

1 worked their way through. And so it has been very powerful
2 having our intel folks as part of this.

3 We also bring unique military capability that we are
4 applying, whether it is the use of our Fort Huachuca
5 unmanned aerial systems or whether it is our ground sensor
6 platoons that deploy in there for training. Those are all
7 additive to the capability to partner with our law
8 enforcement agencies that have proven to be quite effective
9 and really from the dollar perspective of what we spend and
10 what we get out of them, a very effective use while getting
11 training. Our ground sensor platoon that deploy there --
12 they are doing exactly what they are going to be asked to do
13 if they deploy over to the Middle East, et cetera, and they
14 are doing it in an environment with a thinking adversary
15 that really allows them to get ready and increase their
16 readiness in the way that we are currently applying them.

17 Senator Perdue: But with all of that activity, CBP and
18 the military, all of our U.S. activity, with all our
19 technology and everything else, we are only interdicting
20 about 10 percent of the drugs coming in. Is that correct,
21 sir?

22 General O'Shaughnessy: That is roughly correct, and it
23 obviously depends exactly what you are talking about.
24 Broadly that is a correct number, sir.

25 Senator Perdue: Thank you, sir.

1 Thanks, Mr. Chairman.

2 Chairman Inhofe: Thank you, Senator Perdue.

3 Senator Jones?

4 Senator Jones: Thank you, Mr. Chairman.

5 And thank you for being here today and for your service
6 and for all of those behind you for their service.

7 I apologize for not being here as much, but we have
8 several hearings going on today.

9 General Hyten, I know there has been a lot of questions
10 and answers about the INF Treaty and the pullout of the INF
11 Treaty. So I will not kind of rehash all of that.

12 What I would ask, though, have we done everything that
13 you would advise in order to bring Russia to the table on
14 the INF Treaty?

15 General Hyten: So I think that is a very difficult
16 question for me to ask because I do not have the whole
17 picture. I do not know everything the State Department has
18 done. I understand my discussions with the President. I
19 understand that the State Department has worked that issue.
20 So as far as I know, we have done everything humanly
21 possible to try to bring Russia back into that. Every time
22 I talk to the President about it, I want Russia in that
23 treaty, but if they will not comply, then you do not really
24 have a treaty.

25 So from my perspective, I think we have done everything

1 humanly possible, but I would say that there is still time
2 that Russia could come to the table and still participate in
3 that treaty. I would hope that that would happen, but I do
4 not think that is very likely right now.

5 Senator Jones: Do you have any specifics that you
6 would recommend that have not been tried already?

7 General Hyten: I was thinking about that as you went
8 through the question, Senator, and I cannot think of a -- I
9 think you just have to ask again and again. I think we have
10 shown the intelligence to our NATO allies. You have seen
11 the NATO allies come out and understand that that system
12 that is in violation of the treaty is in violation of the
13 treaty. I think all our NATO allies agree with that. For
14 whatever reason, Russia does not want to play in that
15 situation, and if they do not want to come to the table,
16 they are not going to come to the table.

17 Senator Jones: Thank you for that.

18 So, General O'Shaughnessy, obviously there has also
19 been a lot of questions and answers about the border and the
20 national emergency. And I think you testified earlier that
21 whenever there is something coming from the President -- I
22 think your testimony was when you get a legal order from the
23 President, you act. And my question is, with regard to the
24 national emergency declaration, did you or anyone on the
25 staff that you know of evaluate the legality of the order

1 regarding the national emergency on the southern border?

2 General O'Shaughnessy: Sir, that is beyond the purview
3 of NORTHCOM I would say.

4 Just for clarity, though, since the actual declaration
5 of a national emergency, there has been no specific tasking
6 that has come down to NORTHCOM post that declaration. What
7 we have is we are actually executing those orders and
8 direction that we were given prior to that declaration that
9 those troops are now showing up on the border, but that
10 order was given and the request for assistance was given
11 from the Department of Homeland Security to the Department
12 of Defense prior to that declaration.

13 Senator Jones: All right. Thank you.

14 Mr. Chairman, I think that is all I have. Thank you
15 very much.

16 Thank you, gentlemen.

17 Chairman Inhofe: Thank you, Senator Jones.

18 Well, first of all, thank you very much, both of you,
19 for the very concise way in which you answered some pretty
20 difficult questions, and I appreciate that very much.

21 Was there anything else that you would like to bring up
22 that you did not have the opportunity to do for
23 clarification? Either one of you.

24 General Hyten: So, Senator, I would like to -- you
25 mentioned a few things at the beginning that you wanted to

1 make sure we address today. And I went down the list just a
2 minute ago. We have talked about everything on your list
3 except the space force, and I would just like to make a few
4 comments on that.

5 Chairman Inhofe: Okay. I do appreciate that. In
6 fact, both of you may want to do that because my question
7 was there is confusion out there when we are talking the
8 space force, where that fits in all of this. And the two of
9 you would be the logical ones to ask. Thank you very much.

10 General Hyten: So, Senator, the space force is
11 structured to be the organize, train, and equip element for
12 our space capabilities. Right now, the space capabilities
13 are broadly in the Air Force, but they are also across the
14 Army, the Navy, and other defense agencies as well. When we
15 look at the problem, there are really two issues.

16 After Goldwater-Nichols, the military services are now
17 responsible for organizing, training, equipping forces but
18 not fighting. The fighting is done in the combatant
19 commands. General O'Shaughnessy and I represent the
20 combatant commands. So we are responsible for fighting.
21 That is why, in response to the questions earlier, the need
22 to stand up a U.S. Space Command focused on the warfighting
23 problem in space is what that command is doing, which leads
24 to the question, are we properly organized to do the
25 organize, train, and equip mission for the space mission?

1 And the President has said because of the importance of that
2 warfighting domain, we are not. And we should consolidate
3 all of those capabilities from across the Department into a
4 single space force.

5 And I give the President and the Vice President big
6 credit for not creating a department of the space force at
7 this time, but putting that capability in the Air Force
8 because I was very concerned about creating excess
9 bureaucracy. So was the President. So was the Vice
10 President. And by creating a department of the space force,
11 it is just not sized right now in order to do that. It will
12 be some day, but it has just not reached that point right
13 now.

14 But the legislative proposal should come to you
15 shortly. There will be some issues we will have to work out
16 with you, and we will work those together. But I just want
17 you to know that I support the concept of the space force
18 inside the Air Force that the President is now pushing.

19 Chairman Inhofe: Yes, you are right. I had brought
20 that up both in my opening statement, as well as initial
21 questions. And my concern was that we wanted two things
22 answered before you actually get into a new bureaucracy.
23 One is what the costs are going to be. One would it be more
24 efficient. And I think you have answered both of those. I
25 appreciate that very much.

1 Senator Cotton?

2 Senator Cotton: Thank you, Mr. Chairman.

3 Thank you, gentlemen.

4 I apologize for my tardiness. It has been a fun-filled
5 morning of committee hearings all across the Senate.

6 General Hyten, each leg of our nuclear triad has its
7 own value. Is it fair to say that our ballistic missiles
8 have strength in numbers?

9 General Hyten: That is one of the big values of our
10 ballistic missiles. 400 ballistic missiles create a huge
11 targeting problem for the adversary. The only way to get
12 after 400 hardened nuclear missiles is with a whole bunch of
13 incoming weapons, and if you decide to attack those, then
14 you pretty much are guaranteeing that we will attack back.
15 That is deterrent in a nutshell, and that creates a huge
16 element of our deterrent process.

17 Senator Cotton: Sometimes referred to as a missile
18 sink for the enemy?

19 General Hyten: It would be a missile sink. It would
20 be a weapons sink. It would be a very, very difficult
21 target to impact.

22 Senator Cotton: I have heard proposals from some in
23 Congress and Washington suggesting that we ought to
24 eliminate our Minuteman 3 fleet and cancel the replacement
25 for that fleet. If we were to take that step to

1 unilaterally cut over 400 ballistic missiles and command
2 centers, would it not be like giving the Russians and the
3 Chinese 400 free warheads to target something else in the
4 United States or around the world?

5 General Hyten: I do not understand how, with the
6 threats that we face today, which are growing, not
7 shrinking, we would make a decision today as a nation to
8 lessen our overall strategic deterrent. That makes no sense
9 to me, and my best military advice is that we do not do
10 that.

11 Senator Cotton: One common argument I hear in defense
12 of that position is why do we spend so much money on weapons
13 we never use. It is not that much money. It is only 3 to 6
14 percent of the defense budget, depending on where we are in
15 the cycle. Would you not say, though, that we have been
16 using our nuclear weapons every single day for 74 years?

17 General Hyten: We use them every day. And, Senator,
18 the people that say that -- I actually find that a little
19 bit insulting because the men and women who go to work every
20 day underneath the water, underneath the ground, in the air
21 that provide that strategic deterrent -- they are doing the
22 mission every day. It is the most active mission.
23 Strategic deterrence is not a passive mission. Deterrence
24 does not exist just because you have 1,550 deployable
25 nuclear weapons under the New START treaty. You have to do

1 that mission every day, and that is what the men and women
2 of my command do. And they are proud to do it. And so it
3 is an active mission, one of the most active missions that
4 we have. When you send a nuclear submarine out with 160
5 sailors on board, do you think they are thinking to
6 themselves this is a passive functional mission? No. They
7 are an active warfighting mission.

8 Senator Cotton: And the whole point of our nuclear
9 deterrence, of the way we use that force is not to launch
10 and detonate those missiles, but to stop our adversaries
11 from launching and detonating theirs to begin with.

12 General Hyten: Secretary Mattis asked me what is the
13 use of nuclear weapons. Why do we have nuclear weapons?
14 And the answer is to prevent others from using nuclear
15 weapons on us. But in order to do that, you have to be
16 ready. It is the Washington analogy. The best way to avoid
17 war is to be prepared for war. If you are not prepared, you
18 run the risk of an attack.

19 Senator Cotton: And if Russia or China or perhaps
20 Russia and China combined had clear, demonstrable nuclear
21 overmatch against the United States, there is no doubt who
22 would win if there were, in fact, a nuclear exchange. What
23 impact would that have on the conventional forces and the
24 strategic thinking of those nations as against the United
25 States and our allies?

1 General Hyten: You know, in my opening statement for
2 the record, I said that nuclear war cannot be won.
3 Therefore, it must never be fought. Therefore, we must be
4 ready to fight it every day. That is the way I look at it.
5 That is a complicated thing for some people to understand,
6 but if you are not ready, somebody could take a step over
7 the line. If there is an overmatch, somebody could think
8 they could get away with it, and that could create the worst
9 day in the history of the world, the worst day in the
10 history of our country. We never want that to happen. In
11 order to do that, I believe in peace through strength, not
12 peace through unilateral disarmament.

13 Senator Cotton: If you were sitting in your position
14 or in the head of state position in a country like Japan or
15 South Korea that depends on the extended deterrence of the
16 United States and the United States weakened its nuclear
17 triad or even eliminated one of their legs, what kind of
18 influence would that have on your thinking?

19 General Hyten: What I would be concerned about from a
20 U.S. perspective is that would cause some of our allies to
21 decide they need their own nuclear deterrent. One of the
22 goals we have as a country is to eliminate the proliferation
23 of nuclear weapons, not just in our adversaries, but around
24 the world. A world with fewer nuclear weapons is a better
25 world. But we have to be able to defend ourselves. And so

1 we want our allies to understand that we can defend them
2 too. That is what extended deterrence is all about, and
3 that means you have to be ready to support their
4 contingencies as well.

5 Senator Cotton: Thank you, General.

6 I understand that some opponents of our nuclear force
7 or critics of it say that we should not start a new arms
8 race or be engaged in an arms race. I will simply observe,
9 based on what you have said here today, that it is much
10 cheaper to win an arms race than it is to lose a war.

11 General Hyten: Yes, sir.

12 Chairman Inhofe: Thank you, Senator Cotton.

13 I thank both of you. I will repeat what I said
14 earlier. This has been a really enlightening session, and
15 you have been the right ones to be here. So thank you very
16 much.

17 We are adjourned.

18 [Whereupon, at 11:35 a.m., the hearing was adjourned.]

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