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S. HRG. 116–148, PT. 1

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2021 AND THE FUTURE YEARS DEFENSE PROGRAM

HEARINGS

BEFORE THE

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

ONE HUNDRED SIXTEENTH CONGRESS

SECOND SESSION

ON

S. 4049

TO AUTHORIZE APPROPRIATIONS FOR FISCAL YEAR 2021 FOR MILITARY ACTIVITIES OF THE DEPARTMENT OF DEFENSE AND FOR MILITARY CONSTRUCTION, TO PRESCRIBE MILITARY PERSONNEL STRENGTHS FOR SUCH FISCAL YEAR, AND FOR OTHER PURPOSES

PART 1

U.S. AFRICA COMMAND AND U.S. SOUTHERN COMMAND

U.S. NORTHERN COMMAND AND U.S. STRATEGIC COMMAND

U.S. EUROPEAN COMMAND AND U.S. TRANSPORTATION COMMAND

AIR FORCE POSTURE

DEPARTMENT OF DEFENSE BUDGET POSTURE

NAVY POSTURE

U.S. CENTRAL COMMAND

ARMY POSTURE

JANUARY 30; FEBRUARY 13, 25; MARCH 3, 4, 5, 12, 26, 2020

Printed for the use of the Committee on Armed Services

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2021 AND THE FUTURE YEARS DEFENSE PROGRAM—Part 1

U.S. AFRICA COMMAND AND U.S. SOUTHERN COMMAND ● U.S. NORTHERN COMMAND AND U.S. STRATEGIC COMMAND ● U.S. EUROPEAN COMMAND AND U.S. TRANSPORTATION COMMAND ● AIR FORCE POSTURE ● DEPARTMENT OF DEFENSE BUDGET POSTURE ● NAVY POSTURE ● U.S. CENTRAL COMMAND ● ARMY POSTURE

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DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2021 AND THE FUTURE YEARS DEFENSE PROGRAM

THURSDAY, JANUARY 30, 2020

UNITED STATES SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

UNITED STATES AFRICA COMMAND AND UNITED STATES SOUTHERN COMMAND

The Committee met, pursuant to notice, at 8:59 a.m. in room SD–G50, Dirksen Senate Office Building, Senator James M. Inhofe (Chairman of the Committee) presiding.

Committee Members present: Senators Inhofe, Fischer, Cotton, Rounds, Ernst, Sullivan, Perdue, Cramer, McSally, Blackburn, Hawley, Reed, Shaheen, Gillibrand, Blumenthal, Kaine, King, Peters, Manchin, and Jones.

OPENING STATEMENT OF SENATOR JAMES M. INHOFE

Chairman INHOFE. Senator Rounds says it is time we start, and so we are going to start.

Good morning. The committee today has received testimony from SOUTHCOM [United States Southern Command] and AFRICOM [United States Africa Command]. This is a very significant meeting because in my narrow view we have the two comms that never were adequately resourced—I really believe that—compared to the threat that we are facing.

We have two great heroes here. We have General Steve Townsend, Commander of AFRICOM and Admiral Craig Faller, Commander of SOUTHCOM.

This committee's top priority is to ensure the effective implementation of the National Defense Strategy (NDS). That is this. We have been adhering to this to the letter in a very bipartisan way.

We identified the competition with China and Russia. That is where the problem is. That is something that people were not really sensitive to until we came out with this document. China's and Russia's growing influence is not limited to Europe and the Indo-Pacific, and both countries clearly view Africa and Latin America as critical battlefields to fulfill their global ambitions and challenge the United States.

This is particularly evident in Africa. Over the last 20 years, I have conducted over about 160 African country visits working with

that continent. I can tell you that it is no coincidence that China established the first overseas military base in Djibouti. You know, that is the first time. They have always done it in their own city limits before, but now it is Djibouti. Now they are as far south in Africa as Tanzania and all over the country. I visited Djibouti last February and saw firsthand what they are doing there, and they are active there.

Elsewhere China is using cash and debt to trap the countries and to force them to put their infrastructure and potentially their sovereignty on sale.

At the same time, Russia is using its military, mercenaries, and weapons sales to buy influence, exploit Africa's natural resources, and prop up leaders sympathetic to Russian interests and hostile to the United States.

While the NDS states that competition with Russia and China should be DOD's [U.S. Department of Defense] top priority, it makes clear that we must maintain pressure on radical terrorist groups like al Qaeda and ISIS [Islamic State of Iraq and Syria].

Today, more than a dozen terrorist groups with ties to al Qaeda and ISIS are operating across Africa. Many of these groups have ambition to attack Americans and our partners. Without sustained pressure, the threat posed by these groups will grow.

In SOUTHCOM's area of responsibility (AOR), China and Russia are pursuing a similar strategy by using economic and military means to expand their access and influence right here in our own hemisphere.

China has increased its naval deployments to the region by 70 percent over the last 5 years, and Chinese companies currently have over 50 active port projects in this region and there are more on the planning board.

Russia props up oppressive regimes in places like Cuba, Venezuela, and Nicaragua that are hostile to the United States. They are also deploying advanced military assets to the region, including strategic bombers and warships.

At the same time, many of the drugs that are poisoning the American cities are coming from Latin America. These drugs are trafficked by illicit networks.

I would say in my opening statement that in both of these comms, I have been pretty outspoken as a conservative but one who has really been concerned because they do not seem to get the attention that some of the other comms do. I mean, you know, if you look at Africa, you have a total of 6,000 people there, but how much are you going to get accomplished with 6,000 people? You look at CENTCOM [U.S. Central Command]. What is that? Seventy-five thousand, INDOPACOM [U.S. Indo-Pacific Command] is even bigger than that.

So if the object here and people are talking about on the subject that is taking place is to reduce and to reposition people, you are talking about the two areas where there are not enough people to reposition. That is a narrow view, but that is mine.

Senator Reed?

STATEMENT OF SENATOR JACK REED

Senator REED. Well, thank you very much, Mr. Chairman. I welcome our witnesses.

But first let me extend my condolences to the families of the brave Americans who were killed in action in the attack on the Kenyan airbase earlier this month, as well as those who are recovering from those wounds, and also extend my condolences to the families of the two airmen who were recently killed in Afghanistan.

Again, thank you to the witnesses for appearing here today. Both of you are leading commands during challenging times, and we thank you for your continued service. Please also extend our gratitude to the service men and women who, under your command, continue their outstanding service to the Nation.

There is currently an effort underway to review U.S. Force posture around the globe in an effort to ensure the Department of Defense funding and forces are allocated in line with the National Defense Strategy. We understand that AFRICOM is the first combatant command to go through the review process and that SOUTHCOM will shortly follow.

While it is wise and in fact necessary to take a hard look and methodological look at our investments in military activities around the globe, it would be strategically unwise to disengage from either Africa or Latin America in an effort to generate small, near-term budgetary gains. Given the relatively small number of forces under consideration, such a move would not generate the type of savings necessary for meaningful NDS investments and would likely come at a much higher cost in terms of increased long-term security risks.

Our competitors recognize that investing in Africa and Latin America is in their long-term interests, as evidenced by Chinese and Russian military and economic activity that continues to grow across these continents year by year. General Townsend and Admiral Faller, I look forward to hearing your assessments regarding where and how United States interests are best served in the AFRICOM and SOUTHCOM areas of operation (AO, including where we may be able to gain efficiencies without undue risk to the U.S. interests, and where you believe it would be strategically responsible to do so.

As you both note in your testimony, Latin America and Africa are beset by a vicious cycle of challenges that our competitors are seeking to leverage to their advantage. Countries with weak democratic institutions and rampant corruption are being overtly wooed by Chinese and Russian investments and covertly manipulated through information operations and a flood of disinformation. We are not only competing globally for influence and access, we must also work to ensure that new forms of military and economic colonialism do not take root in those regions. I am especially concerned about Chinese economic intentions and whether our partner countries are positioned to defend themselves against China's predatory lending practices.

As you well know, the problems we face and the security solutions required are multidimensional. They do not lend themselves to geographic or bureaucratic boundaries and require well-resourced and well-integrated whole-of-government solutions. Con-

tinuing to restrict development aid, rebuff partners and allies, and constrain multilateral efforts, as the administration has repeatedly endeavored to do, all but ensures that present challenges in places like Latin America and Africa will continue to expand and travel to America's doorstep. I will be interested in your views on the importance of investing in diplomacy and development to foster long-term stability in these regions, as well as your assessment of the impact of significant force reductions on the interagency and international partners we coordinate with and depend upon to advance our objectives.

Gentlemen, thank you for your service and thank you for your testimony.

Chairman INHOFE. Thank you, Senator Reed.

We will go ahead and start with opening statements, and we will start with you, General Townsend. Your statement will be made a part of the record. You may proceed.

STATEMENT OF GENERAL STEPHEN J. TOWNSEND, USA, COMMANDER, UNITED STATES AFRICA COMMAND

General TOWNSEND. Chairman Inhofe, Ranking Member Reed, and distinguished members of the committee, good morning and thank you for the opportunity to appear before you today.

It is a privilege to be a part of and to lead America's finest men and women at United States Africa Command, an exceptional team dedicated to protecting America and advancing her interests on the African continent.

I would like to take a moment to honor the memories of three exceptional Americans, United States Army Specialist Henry Mayfield, Jr.; Mr. Bruce Triplet; and Mr. Dustin Harrison who lost their lives in the service of our nation on January 5th in Manda Bay, Kenya. To their families, our thoughts and prayers are with you. Your loved ones died while protecting the American people from the very real threat of al Qaeda and al Shabaab terrorist groups.

I am here this morning with my battle buddy, shipmate, and friend, Admiral Craig Faller, to discuss shared challenges and opportunities in both our areas of responsibility while we further readiness of the joint force and our ability to fight across the globe.

AFRICOM is critical to maintaining this ability as Africa overwatches a global crossroads with strategic chokepoints and sea lines of communication that are essential to global commerce and critical to United States operations in the world. Our future security and prosperity rest on this strategic access in times of crisis and ensuring these waters remain free, open, and secure.

AFRICOM is engaged in an ongoing blank slate review. In concert with the Department of Defense, we have developed a prioritized list of objectives and actions to protect the Homeland and secure our strategic interests in Africa while ensuring the American taxpayers' investments are in the right areas.

Africa is key terrain for competition with China and Russia who are aggressively using economic and military means to expand their access and influence. I believe Africa offers America a competitive edge over China and Russia, and we should take advantage of it.

We will grow more efficient to contribute to higher defense priorities and refocus resources to global power competition, but we cannot take pressure off major terrorist groups like al Qaeda and ISIS. These groups and many others remain an inconvenient reality in Africa. While we should not try to confront each one, we should remain resolute in confronting those who threaten Americans and the American Homeland like al Shabaab, the largest and most violent of al Qaeda's branches. Today AFRICOM does that with a light and relatively low cost footprint by supporting African and international partners who are leading these efforts.

In my first 6 months of command, I learned that small investments, a few troops, and a few bucks can go a long way and make a real difference in Africa. Our whole-of-government and partner-centric approach acts as a force multiplier to address Africa's many complex challenges. What AFRICOM accomplishes with a few people and a few dollars on a continent three and a half times the size of the continental United States is a bargain for the American taxpayer and low cost insurance for America in that region.

A secure and stable Africa remains an enduring American interest. AFRICOM stands ready to protect and advance American interests and respond to crises in Africa.

Again, thank you, Mr. Chairman and members of the committee, for your continued support to our armed forces. I look forward to your questions.

[The prepared statement of General Townsend follows:]

PREPARED STATEMENT BY GENERAL STEPHEN J. TOWNSEND

INTRODUCTION

A secure and stable Africa is an enduring American interest.

Chairman Inhofe, Ranking Member Reed, and distinguished members of the Committee:

I am honored and privileged to represent the members of United States Africa Command, an exceptional team dedicated to protecting our nation and advancing our interests. United States Africa Command has been engaged in a "blank slate review" since I took command in July last year, an effort which has accelerated since I provided my initial assessment to the Secretary of Defense in October. In concert with the Department of Defense, we have developed a prioritized list of objectives and actions to protect the Homeland, secure our strategic interests in Africa, and focus the American taxpayer's investment in the right areas. We are further refocusing United States Africa Command's approach on the objectives of the National Security, Defense, and Military Strategies. These foundational documents acknowledge the strategic importance of Africa and guide our mission: *United States Africa Command, with partners, counters transnational threats and malign actors, strengthens security forces and responds to crises in order to advance United States national interests and promote regional security and stability.*

Africa is home to the fastest growing economies and populations in the world, sits at crossroads of international commerce and trade, and watches over the world's most important sea lines of communication. The U.S. plays a unique role in ensuring these strategic routes remain open to all. The international order we have helped create gives people everywhere the best hope for safe, secure, and prosperous lives. Africans recognize this and continue to look to the United States for leadership. Our future security, prosperity, and strategic access in times of crisis rest on free, open, and secure sea and air lines of communication around Africa. Simply put, a secure and stable Africa is essential for America's security.

STRATEGIC ENVIRONMENT

A Vast Continent. The land mass of Africa is larger than the United States, China, India, Japan, and all of Europe combined. This vast continent of opportunity and promise also includes strategic challenges from malign competitors and violent

extremist organizations (VEOs). Of the 1.3 billion people who live in Africa, over two-thirds live in conditions of astonishing poverty.[1] Poverty and food insecurity are exacerbated by natural resource degradation, shifting weather patterns, climate impact, infectious disease outbreaks, and conflict. Lack of economic opportunities and a search for a better life leads to internal displacement and refugees, which creates new challenges and conflicts over increasingly scarce resources. These factors and others have led to an uptick in migration to Europe in recent years, under dangerous conditions in many cases, and feed a lucrative market for VEOs and criminal networks.

These challenges will be amplified as Africa's population continues to grow. By 2050, Africa's population is projected to double, and more than a quarter of the world's inhabitants will reside on the continent. By 2100, Africa's population is projected to almost double again.[2] At that point, almost 1 in 3 people on the planet will live in Africa. This massive population growth will further strain resources, require job creation, potentially lead to surges in migration to Europe and beyond, and will increase political instability, communal conflict, trans-regional terrorism, and further marginalization of already vulnerable populations.

Nonetheless, Africa is also a land of opportunity. Over half of the world's farming land is in Africa, and when effectively managed, Africa's population growth and rich natural resources drive progress. Of note, 26 African nations hold reserves of minerals determined to be critical to the United States economy and national security.[3] For 2020, the World Bank projects six of the world's fastest growing economies to be in Africa, with Rwanda identified as the second fastest growing economy in the world (after Guyana) with 8.1 percent GDP growth. In conditions that promote a healthy business climate, these burgeoning markets present opportunities for U.S. trade and investment.

Africa and National Security. Located at the crossroads of the world, Africa watches over strategic choke points and sea lines of communication, including the Mediterranean Sea and the Strait of Gibraltar on NATO's southern flank, the Red Sea and the Bab al Mandeb strait, and the Mozambique Channel. These strategic pathways are essential to global commerce and critical to the operations of most of our Geographic and Functional Combatant Commands. These corridors facilitate one-third of the world's shipping, and are key to the movement of Africa's vast natural resources including energy and strategic mineral. African, United States, and global prosperity depend on unhindered access to these waters.

Global Power Competition.[4] China and Russia have long recognized the strategic and economic importance of Africa, and continue to seize opportunities to expand their influence across the continent. The National Defense Strategy directs us to prioritize great power competition with China and Russia due to the "magnitude of the threats they post to United States security and prosperity today and the potential for those threats to increase in the future." The United States encourages constructive partners helping to develop Africa's economic, infrastructure, humanitarian, and security sectors to the benefit of all Africans. However, malign actors, unencumbered by international norms and professional military standards, leverage speed of action and access to economic and security arenas in many parts of the continent. Their coercive and exploitative activities undermine and threaten many African countries' stability. China is outpacing all of its competitors in Africa, where, with the construction of a military port and helicopter landing pads, it is converting its first overseas military base in Djibouti into a power projection platform. We know they seek to open more bases and their unprofitable seaport investments in East Africa and Southern Africa track closely with involvement by Chinese military forces. These Chinese seaports are not genuine commercial ports; these investments are geo-economic tools to increase the PRC's geopolitical influence throughout the continent. China continues to invest heavily in African infrastructure and currently maintains 52 embassies in Africa—three more than the United States and a 24 percent increase since 2012. China also leads its G20 partners in head of state and senior leadership visits to the continent over the last decade. In the last seven years, China has sold over two billion USD in arms to African partners. During the same period, Russia increased access agreements by 200 percent and remains the top

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[1] 85 percent of Africans live off less than 5.50 USD per day, World Bank October 2019

[2] United Nations Department of Economic and Social Affairs/Population Division World Population Prospects: The 2019 Revision

[3] Executive Order 13817, A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals, December 20, 2017

[4] I use "global" rather than "great" because China and Russia are "global powers" but they are not "great powers" in the way the United States is. Further, calling Russia "great" plays right into the Russian's hands as their dream is for Russia to be considered great like the United States and they are far from it.

arms dealer for the entire continent, selling nearly nine billion USD in arms to African partners. Russian private military companies (PMCs) have a highly destabilizing influence in Africa, as they are frequently employed to secure Russian investments at the expense of Africans, to prop up corrupt regimes and establish a broader Russian military footprint globally. In Libya, Russian PMCs almost certainly downed a United States unarmed, unmanned aircraft in November using a sophisticated Russian air defense system. From the 7th Forum On China-Africa Cooperation (FOCAC) in Beijing in September 2018 where China pledged over 60 billion USD in investments, to the October 2019 Russia-Africa Summit in Sochi where all 54 African countries attended with over 43 Heads of State, it is clear that China prioritizes Africa and Russia sees an opportunity to gain a strong position on NATO's southern flank. China and Russia's corrupt and exploitative investment and security assistance often prioritizes their own gains rather than building long-term African security capacity, and their activities often undermine transparency, accountability, and respect for human rights. Importantly, they erode United States influence and access over time.

VEOs Remain a Reality. Violent extremist networks are expanding in Africa at a rapid pace, due in large part to weak governance and disenfranchised populations while employing violence to exacerbate despair and hopelessness. They undermine public trust in local governments and militaries, eventually filling—via illegitimate means—security and public service voids while expanding their radical ideology. In general, African governments view VEOs as near-term threats to their capacity to govern effectively, protect their populations, and improve their economies. They also pose threats to U.S. interests. Most VEOs in Africa seek to strike at the United States in the region, and some aspire to strike the United States Homeland. United States Africa Command prioritizes efforts on the most capable VEOs today. In East Africa, we focus on al Qaeda's al Shabaab. Al Shabaab is the largest and most kinetically active al Qaeda network in the world. After a series of complex attacks targeting Somali and United States bases last year, in November al Shabaab's leadership publicly identified Americans and United States interests worldwide as priority targets—mirroring Usama bin Laden's declaration of war on the United States in 1996. The latest manifestation of this threat was the 5 January 2020 attack by al Shabaab on United States Forces at the Kenyan Naval Base at Manda Bay, which killed three Americans and clearly demonstrated al Shabaab's willingness and capability to attack the United States outside of Somalia.

While al Shabaab is most dangerous to United States interests today, ISIS is rapidly franchising VEOs in all corners of Africa and may become a pre-eminent threat to United States interests, as it did until western intervention in Iraq and Syria. In West Africa, the primary VEO threats are al Qaeda's Jama'at Nusrat al Islam wal-Muslimin (JNIM) and ISIS networks in the Sahel and Lake Chad Basin. Unlike we have seen elsewhere, in this region, both al Qaeda and ISIS networks are working together to exploit under-governed regions, disenfranchised populations, and porous borders and threaten the security and stability of our African partners, our allies, United States commercial and security interests, and U.S. citizens. Kidnapping for ransom remains a pervasive threat throughout Africa where Americans and other Western partners are often targeted by VEOs to raise revenue or exact other concessions from Western countries. Left unchecked, this threat will continue to expand across Africa.

Africa is a complex continent with a unique environment. There are numerous big challenges, but its potential is enormous. Today our African partners are under siege from new agents coming to strip them of their natural resources, trap them in unpayable debt, and undermine the international order. Chinese investment has brought some benefit to the continent through infrastructure projects that have improved roads and connected markets to transportation hubs. However, the United States offers a unique partnership, as we believe in investing in and fortifying our African partners to enable "African solutions to African problems"—the bedrock of long-term self-sufficiency, security, and development.

UNITED STATES AFRICA COMMAND STRATEGIC APPROACH

United States Africa Command's operations are a bargain for America . . .an "ounce of prevention" that is just pennies on the defense dollar.

The United States must continue to advance our national interests in Africa within the international order that underwrites global security and prosperity. Following our national strategic guidance to achieve U.S. foreign policy goals, United States Africa Command applies a partner-centric, interagency-based approach dating back to the inception of the command in 2007. In an era of global power competition, the combined efforts of the Department of Defense, Department of State, U.S. Agency

for International Development (USAID), the broader interagency, American businesses, and the charitable generosity of the American people are critical to achieving our objectives in the National Defense Strategy. This whole-of-government model defines United States Africa Command's strategic approach across three themes: we partner for success, compete to win, and maintain pressure on malign networks.

First, we understand Africa's challenges cannot be resolved solely through the use of United States military power. United States Africa Command must Partner for Success with a diverse network that includes African nations, strategic allies, United States Government agencies and departments, and multinational coalitions to prevent, address and mitigate conflict in Africa. We emphasize military support to diplomacy and development as our security activities directly complement Department of State and USAID efforts to reduce the spread of harmful ideologies, strengthen governments to protect their citizens, and promote stability and security, good governance, and economic successes. Security is a key enabler of U.S. whole-of-government and whole-of-society efforts—a minimum security threshold must be met for diplomacy to work, economies to flourish, and development efforts to take root. On the other side, development and diplomatic engagement are necessary to consolidate military and other security gains. United States Africa Command helps African partners create this operational space in Africa to build the governance and economic growth necessary for them to repel malign actors and VEO influences.

Second, we *Compete to Win.* We conduct our security activities to safeguard U.S. interests. We seek areas where our interests align with those of our allies and partners as we work together to achieve shared objectives. This is particularly true where we see unhelpful activities and pressure exerted by malign actors. Chinese, Russian and VEO activities on the continent are destabilizing and promote a disregard for human rights and inclusive economic growth that will upend the progress the continent has seen in the last ten years. United States Africa Command must continue to find ways to expand the competitive space and outpace Chinese and Russian influence to maintain our strategic access in Africa. America's values, our high standards of professionalism, our direct focus and commitment to addressing partner security needs, and our high-quality equipment and niche capabilities give us a qualitative advantage over these competitors in Africa … which our African partners actively seek.

Most importantly, in order to counter potential threats to the U.S. and our core interests, we work closely with allies and partners to apply persistent Pressure on the Malign Networks of global and regional competitors, VEOs, and transnational criminal organizations. Our principal means for applying pressure is working with our African and international partners, increasing African security capabilities, information operations, and, only when necessary, using military force. Ultimately, in countries like Somalia that have seen progress over the course of a decade of investment, our use of force in Africa directly supports host government, African, and international partner efforts to provide the security required for development activities to bring about long-term stability and prosperity.

This strategic approach allows us to protect our citizens and interests at home and abroad, advance American prosperity and values, and support allies and partners overseas so they become more self-reliant and less dependent on U.S. security assistance.

PRIORITIES, PARTNERS, AND COMPETITORS

United States Africa Command advances United States strategic objectives by focusing on global power competition to maintain strategic access, by prioritizing efforts that protect the Homeland and U.S. personnel on the continent, and by responding to regional crises across our area of responsibility. United States security cooperation with African partners builds professional, capable militaries that can provide security which sets the conditions for economic growth and development. We achieve and maintain influence with our African partners through security cooperation, exercises, engagements, operations, and "setting the theater" or maturing infrastructure on the continent.

Protecting United States personnel and facilities remains United States Africa Command's number one responsibility. Our mission to protect United States embassies and forces in Africa is central to our force posture. The Department of State has designated 32 diplomatic facilities worldwide as High Threat, High Risk posts—15 are in our area of responsibility, spread across an area 3.5 times the size of the United States. This critical mission requires heightened readiness and vigilance. Additionally, on any given day there are approximately 6,000 Department of Defense personnel across the continent supporting U.S. interests, addressing global security

challenges, and maintaining strategic access and influence. Even if the numbers of at-risk diplomatic posts and military personnel are reduced, the remainder will still require the backing and protection of the Department of Defense. Al-Shabaab's capability to reach outside the borders of Somalia to strike Americans in locations we once considered beyond their reach highlights the growing threat to our interests. After the 5 January attack in Kenya, we have taken swift measures to increase our force protection posture and harden our location at Manda Bay, while pursuing the attackers and their network. We are also taking a hard look at all our locations across the continent in light of this expanded threat.

We benefit greatly from close coordination with a variety of U.S. and international partners. There are currently 28 representatives from 13 different U.S. Government departments holding key positions on my staff. All United States Africa Command activities are closely coordinated with Defense Attachés and Chiefs of Security Cooperation in our embassies across Africa. In addition, United States Africa Command collaborates with the United States National Guard's State Partnership Program (SPP), where 15 African countries are paired with United States National Guard units. The SPP creates enduring bonds between Americans and Africans, and we are encouraged as more African countries apply to the program every year. Furthermore, foreign liaison officers representing 18 countries and multinational organizations are assigned to United States Africa Command headquarters providing key reach back capability within their Ministries of Defense and General Staffs. Outside the command, we regularly work with the African Union, European Union, NATO, United Nations, and the Regional Economic Communities in Africa on operations, exercises, engagements, security cooperation, and maturing the theater activities.

In Africa, Counter-VEO is Global Power Competition. United States Africa Command prioritizes global power competition, even while we remain engaged in counter-VEO (C–VEO) operations. At AFRICOM, we recognize the strategic environment is changing and the Joint Force must orient the bulk of our efforts against China and Russia even as we counter VEOs that threaten America. In Africa, the C–VEO fight is a key component of global power competition as these efforts are not mutually exclusive. Our experience, training, equipment, advice, and other unique capabilities to support C–VEO efforts led by our allies and partners addresses immediate partner needs, builds relationships for the future, and is a distinct U.S. advantage that our competitors cannot match. Al Qaeda and ISIS influence is growing in Africa and al Shabaab's capability to threaten American interests in East Africa and the Homeland is on a dangerous trajectory. The international community is not making durable progress to contain priority VEOs in Africa, mainly because military activities remain insufficiently coordinated and lack a "whole of coalition" balance between military and non-military investments. Outside of arms sales that they leverage to their own benefit, China and Russia do little to counter violent extremist groups seeking to destabilize Africa. However, as one African leader recently shared, "a drowning man will accept any hand." In the absence of even limited United States C–VEO assistance, African partners are turning to our competitors to fill the void, including by accepting training and other military engagement opportunities overseas. In our highest priority countries, where U.S. interests are greatest, C–VEO assistance is a key tool in our global power competition toolkit.

In Africa, Building Partner Capability is Global Power Competition. Building partner capability is also an important tool in global power competition, reinforcing the U.S. role as the world's elite professional fighting force and furthering American values, respect for human rights, and adherence to obligations and commitments. We have learned that we cannot surge trust. The enduring relationships built while we develop partner capabilities provide us with the long-term strategic alliances we need to address future challenges.

United States Africa Command and its component commands conduct engagements and exercises throughout the region designed to strengthen key partnerships and improve partner capabilities in basic military skills, maritime security, C–VEO efforts, counter-trafficking, humanitarian assistance, disaster relief, and control of key infectious diseases. United States Africa Command leverages an interagency toolkit and coordinates a broad group of programs to complement our capability-building efforts such as, among others, the Department of State's Global Peace Operations Initiative, Trans Sahara Counterterrorism Partnership, Africa Military Education Program, and the Women, Peace & Security Initiative. These programs help professionalize partner military and security forces and strengthen defense institutions through training on human rights, the rule of law, and prevention of violence against women.

United States-facilitated exercises offer some of the best return on investment by advancing our force readiness and providing our African partners with exposure to

American values, expertise, and professionalism. Our exercise program improves partners' capabilities, encourages self-sufficiency, and develops opportunities for burden sharing over the long-term. United States Naval Forces Africa completed Exercise Cutlass Express in November, combining for the first time with United States Central Command's International Maritime Exercise, creating the second largest maritime exercise in the world for little in the way of additional resources. This exercise also allowed United States Africa Command and United States Central Command to practice cross-boundary operations along our seam. The ability to attract large coalitions of partners and allies to exercises addressing shared security concerns is a unique U.S. advantage that sends a strong message to our partners and competitors.

Another United States Africa Command niche capability with long-term and high return on investment is United States professional military education and training. In 2019, African partners sent 763 of their best and brightest military leaders for training at professional military schools in the United States through Department of State's International Military Education and Training (IMET) program. In addition, in August, United States Africa Command's Senior Enlisted Leader hosted the third annual and largest African Senior Enlisted Leader Conference with over 67 African partners from 29 countries. These are important stakeholders that our competitors dismiss—strong officer and enlisted leadership is a bedrock of responsible defense institutions and our African partners look to United States Forces as a model.

United States Africa Command engages partners to establish the security environment required for economic opportunity and trade to flourish. With a whole-of-government approach, enhanced security fosters development and investment with United States initiatives such as the Millennium Challenge Corporation, Prosper Africa, and the Better Utilization of Investments Leading to Development (BUILD) Act. Efforts like these open doors for United States companies to compete overseas and respond to China's increased economic engagement in Africa.

REGIONAL ASSESSMENTS

In *East Africa,* we see opportunity in several countries and strong partners in others. Uganda, Burundi, Ethiopia, and Kenya are the top African Union Mission in Somalia (AMISOM) troop contributors and some of our strongest African partners in the fight against al Shabaab in Somalia. Djibouti also contributes troops to AMISOM and hosts our largest presence on the continent at Camp Lemonnier, home to more than 3,000 Americans supporting multiple United States combatant commands and other organizations. Thanks to our collective security and whole-of-government efforts, we have seen real and tangible progress in Somalia over more than a decade, albeit slower than we would like. AMISOM and the Somali National Army (SNA) have made gains in al Shabaab strongholds in the south, holding territory and establishing outposts. Gains are fragile, though, and at risk of stalling, so there is much work to be done. Al Qaeda's al Shabaab is a very real threat to Somalia, the region, the international community, and even the United States Homeland, but political friction between the Federal Government of Somalia and Somali Federal Member States threatens to distract Mogadishu from the fight. Somalia's Prime Minister Khayre called 2019 Somalia's "Year of Action," and has led encouraging security sector reforms replacing corrupt leaders with reform-minded officers. United States-trained "Danab" SNA units, along with U.S. counterterrorism efforts, are important to maintain momentum and secure hard-fought gains. Importantly, the European Union continues to fund AMISOM stipends at over 200M EUR per year. Underscoring the importance and urgency of the international effort, al Shabaab's 5 January Manda Bay attack—the group's first ever attack on a military base inside Kenya—demonstrates their intent and capability to strike outside Somalia. It is critical that AMISOM remain in the fight, as the SNA requires more time and international support before they are able to counter al Shabaab themselves. In the next 6 months, I intend to review United States military operations in Somalia in detail to assess our progress and the way ahead.

North Africa is home to some of our oldest friends and newest democratic partners. Morocco was the first country to recognize our new nation in 1777 and remains by our side through exercises, training programs, foreign military sales, and counterterrorism cooperation. We'd like to strengthen our security cooperation with Algeria as it enters a new era under its first new president in twenty years. Tunisia just completed its second free and fair presidential election since its 2011 revolution. The Tunisians are strong partners in the fight against ISIS–Libya and complement our security cooperation investment dollars with national funds. However, much of the international community remains paralyzed in Libya as we watch a civil war

play out with no real progress toward a political solution. As we continue to support the United Nations action plan, Turkey and Russia are weighing in heavily on opposing sides. Notably, Russia continues to harvest benefits from the instability in Libya—its military meddling has prolonged the conflict and exacerbated casualties and humanitarian suffering. Moscow continues to deny any Russian involvement in the conflict, but its private military companies (PMCs), such as the Wagner Group with strong links to the Kremlin, are leading the fight for the self-styled "Libyan National Army" against the UN-backed and United States-recognized Government of National Accord. Turkey's recent deployment of troops and hardware to counter Russian PMCs risks a significant escalation, as both Russia and Turkey are attempting to tip the scales in their favor. A potential bad outcome for both the United States and NATO is Russia gaining access to oil and military bases with long-range anti-access area denial (A2AD) capabilities on NATO's southern flank. Despite these frictions, United States Africa Command continues to keep pressure on ISIS and other VEOs as they seek to take advantage of the security vacuum created by the civil war in Libya. Our persistent focus on ISIS–Libya, in coordination with our interagency and African partners and at low cost in Department of Defense resources, continues to disrupt ISIS freedom of action as a regional terrorist threat. We will remain vigilant to counter VEO reconstitution efforts.

In *West Africa,* we see functioning democracies, peaceful transfers of power, and an engaged regional organization in the Economic Community of West African States (ECOWAS). Senegal remains a stalwart, fully functioning democracy, focused on bolstering their defense institutions. Ghana hosts our West Africa Logistics Network, a unique shared-expense logistics hub that supports United States, African, and European partners across the continent. However, we also see a serious regional threat from VEOs emanating from the Sahel. Security is deteriorating rapidly, with a 250 percent increase in VEO violence since 2018 in Burkina Faso, Mali, and western Niger. Having quickly spread from northern Mali, al Qaeda's JNIM, ISIS-aligned groups, and other VEOs are now operating throughout the Sahel region. They are taking advantage of porous borders, weak governments, underresourced and overextended militaries, and disenfranchised populations, and are now even threatening Gulf of Guinea countries. Our African partners are trying to help address this growing regional threat themselves through the G5 Sahel Joint Force, the Accra Initiative and various ECOWAS initiatives. However, despite United States bilateral security assistance and generous pledges of support from the international community coordinated by the European Union, they cannot effectively control their own borders or address security and related governance challenges in the region without substantive external assistance from their Western partners. We praise our French partners who are assisting this African-led effort in a significant way with over 4,400 French troops deployed as part of Operation Barkhane. In our view, African and European partners must do more to roll back the VEO threat and there must be a better synchronization of efforts in West Africa. The window of opportunity to dig a firebreak and prevent the further spread of VEOs is months, not years. We applaud emerging plans by the French and Germans to develop new structures to improve coordination, synchronization, and effectiveness of international assistance, and improve African partner fighting capabilities. We encourage all approaches that will allow regional partners to be more self-sufficient.

In *Central and Southern Africa,* we again see some strong partnerships and a few opportunities. Botswana is a bright spot with its enduring democracy, continued stability, professional military and good relations with the United States In 2019, Rwanda became the 15th African nation to join the SPP, establishing their partnership with the Nebraska National Guard in December. South Africa is the second-largest economy in Africa and the largest United States trade partner on the continent. There is enormous potential for Mozambique, where the United States, France, and other partners have invested in an 11 billion USD liquid natural gas project that is located in the same areas as an increasingly violent group that has claimed links to ISIS. In addition, United States Africa Command support to USAID for Cyclone Idai relief and recovery efforts have opened a door with Mozambique for future security cooperation opportunities.

China and Russia are in a position of advantage in central and southern Africa. Russia is testing its playbook for malign activity in the Central African Republic, where they are deploying PMCs, extracting minerals, and attempting to buy influence. In Mozambique, Moscow provided second-rate counterterrorism assistance in the hopes of buying oil and gas concessions. Russia also deployed strategic bombers to South Africa, and participated in the first-ever trilateral Chinese-Russian-South African naval exercise MOSI in November 2019. ISIS and other spoilers look to ex-

ploit long-simmering grievances and gaps in governance in the region. We are exploring renewed military-to-military outreach in South Africa.

ECONOMY OF FORCE

United States Africa Command continues to assess and implement reform efforts to maximize value from our precious resources. For example, we prioritize the warfighting readiness of assigned and allocated forces through refinement of our exercise program. We are committed to optimizing the effectiveness of our security cooperation assistance and activities and we must be innovative in how we use our assets in support of our strategic objectives. Honest assessments and prudent investments ensure the United States maximizes the impact of every taxpayer dollar while remaining the premier security partner for priority African Governments.

U.S. foreign assistance should serve America's interests and should support countries that help us to advance our foreign policy goals. United States Africa Command's efforts are focused on priority nations and strategic objectives that are sustainable, consistent with our national-level guidance, maintain our strategic access and protect the Homeland and United States personnel on the continent.

It is a commander's responsibility to ensure our world-class troops have the resources they need. We must protect our forces when we move them into uncertain environments. The pace of improved base defense capabilities against emerging threats has been too slow. We need to accelerate C–UAS technologies to Africa to improve local domain awareness and provide an additional layer of warning and force protection while also improving capabilities across the joint force. As previously mentioned, our exercises hone partner capabilities and encourage self-sufficiency and burden sharing. This small investment in relationships and the human capital of our partners can make a difference in a crisis. With the continued support of Congress, United States Africa Command can best provide our troops the protection they deserve while enabling engagements critical to war-winning activities in any theater.

CONCLUSION

A secure and stable Africa is an enduring American interest.

United States Africa Command remains ready to protect United States citizens, interests, strategic access, and respond to crises in our area of responsibility. The men and women of United States Africa Command, our partners on the continent, and our broad collection of stakeholders understand how important Africa is to the global economy and security environment. Strategic access to Africa, its airspace, and its surrounding waters is vital to United States national security. As outlined in our governing strategies, long-term global power competition with China and Russia and the need to limit the harmful influence of malign actors in the region is of utmost importance.

In my first 6 months of command, and through our ongoing "blank slate review" process, I have learned that small investments in Africa go a long way. A few bucks and a few troops can make a significant difference and have proven to be the cornerstone of multinational efforts in the region. What United States Africa Command accomplishes with relatively few people and few dollars, on a continent 3.5 times the size of the continental United States, is a bargain for the American taxpayer. That said, United States Africa Command is diligently working to make our operations even more efficient and adjusting our posture and activities to ensure United States strategic access for today and tomorrow. Africa is key terrain for competition with China and Russia, and our support to C–VEO operations is necessary. While we can and will grow more efficient to contribute to higher NDS priorities, if the United States steps back from Africa too far, China and Russia will fill the void to our detriment. Violent extremist organizations will be able to grow unchecked, some will ultimately threaten the Homeland, and we will lose opportunities for increased trade and investments with some of the fastest growing economies in the world.

Finally, it remains my honor to lead the soldiers, sailors, airmen, marines, coast guardsmen, civilians, and families of United States Africa Command. Our efforts have made the United States safer and advanced American interests while helping Africans do more for themselves. United States Africa Command is an investment in America's, Africa's, and the world's future.

Thank you.

Chairman INHOFE. Thank you, General Townsend.

Admiral Faller?

STATEMENT OF ADMIRAL CRAIG S. FALLER, USN, COMMANDER, UNITED STATES SOUTHERN COMMAND

Admiral FALLER. Chairman Inhofe, Ranking Member Reed, Senators, thank you for the opportunity to testify today. I am honored to be here with my shipmate and good friend, General Steve Townsend.

We also thank you for the steadfast support you provide to our men and women every day at SOUTHCOM, and I am truly grateful for the honor and opportunity to lead them.

I am with Ambassador Jean Manes, our civilian deputy commander, former United States Ambassador to El Salvador; and Sergeant Major Zickefoose, Command Sergeant Major for SOUTHCOM, two of the eyes and ears of our command.

The western hemisphere is our shared home. It is our neighborhood and we are connected to the nations there in every domain, sea, air, space, land, cyber, and most importantly, culturally and with values. Over the last year, I have had the opportunity to visit our partners and see firsthand the opportunities and challenges that directly impact the security of our hemisphere.

I have come to describe the challenges of a vicious circle of threats that deliberately erodes the security and stability of this region and the United States of America. This vicious circle is framed by systemic issues of young democracies, with weak institutions, rampant corruption, exploited by transnational criminal organizations often better funded than the security organizations they face, external state actors that do not share those values, China, Russia, and Iran, and violent extremist organizations. They are trying to advance their interests at the expense of United States and partner nation security.

In fact, the aha for me over the last year is the extent to which China is aggressively pursuing its interests right here in our neighborhood. This vicious circle can be seen most acutely in the tragedy that is Venezuela. The human suffering of this once thriving democracy has driven 5 million people to flee to neighboring countries like Colombia, Brazil, Peru, Ecuador, Argentina, Chile, and more. These countries are dealing with this and the strains to their health care, education, and social services are palatable. Colombia alone spent $2.5 billion, a significant part of their GDP [gross domestic product], over the last 2 years just to support the migrants. While Russia, Cuba, and China prop up this illegitimate Maduro dictatorship, the democracies of the world look for a way to get the Venezuelan people what they deserve, a free and prosperous Venezuela.

The only way to attack this vicious circle is as a team. In this neighborhood, a little goes a long way, and our partners are willing to contribute. But we need the right and focused, persistent military presence which might take the form of security force assisted brigades or small teams of special operation forces or marines to conduct specialized training or our National Guard forces forging long-term relations via the State Partnership Program or our maritime forces where presence at sea establishes sea control and attacks these transnational criminal organizations, as we have recently done with the deployment of littoral combat ship USS *Detroit.*

Deployments like the United States naval ship *Comfort* show the best outstretched hand of America, and that mission treated over 70,000 patients and extended our enduring promise as a trusted partner to the neighborhood.

Security cooperation is a critical tool in a region with willing partners who thrive given the opportunity. International military education and training, IMET [International Military Education and Training], as a small investment, yields long-term returns. It builds lasting trusted relationships. As I speak, half of our nation's chiefs of defense are graduates of IMET programs.

Finally, our people, our greatest asset. Joint Interagency Task Force South, JIATF–South in Key West, our southernmost base in the continental United States, holds significant strategic value in defending against a wide range of threats to U.S. national security. We are taking steps to improve the resiliencies of that headquarters building and to improve the quality of life of our military and civilian personnel who struggle in one of the country's most expensive economies.

At our headquarters in Miami, we are also working to address the cost of living and housing concerns that create hardships for our families.

Mr. Chairman, Ranking Member Reed, thank you again for the opportunity to testify today. The SOUTHCOM team appreciates the support of Congress, and you continue to place trust and honor in us and we will not let you down.

I look forward to your questions.

[The prepared statement of Admiral Faller follows:]

PREPARED STATEMENT BY ADMIRAL CRAIG S. FALLER

Strategic Environment. Thank you for your support to United States Southern Command (USSOUTHCOM). As our *National Defense Strategy* (NDS) directs, we are focused on sustaining our advantages in the Western Hemisphere—the most important of which are strong partnerships founded on shared democratic values. Recent trends illustrate that the Western Hemisphere—our shared neighborhood—is critical space in the global competition—and global challenges—posed by the People's Republic of China (PRC) and Russia. As the NDS notes, the U.S. derives immense benefit from a stable, peaceful hemisphere, and keeping our partnerships in the Western Hemisphere strong and vibrant will allow us to achieve the NDS objective of maintaining a favorable regional balance of power that reduces security threats to the Homeland.

Beyond like-minded democracies throughout Latin America and the Caribbean, the region is home to ~25 percent of all United States exports and key global infrastructure like the Panama Canal, sea lanes, and deep water ports that provide access to both the Atlantic and Pacific Oceans. It is directly connected to our Homeland in every domain—land, sea, air, space, cyber, and most importantly values—which makes any threat or encroachment in this region particularly concerning. Latin America's strategic importance lies in its unique potential as both a vulnerability and an opportunity for our own security, prosperity, and efforts to address global challenges. [1]

Concerning Trends. Last year, the Chinese Government absorbed three more Latin American countries into its One Belt One Road Initiative, bringing the regional total to 19—more than half of all countries in the region. Beijing now has 29 government exchange programs with Latin America and the Caribbean, and continues to expand offers of professional military education, equipment donations, and funding for infrastructure projects. Russia once again projected power in our neighborhood, establishing a military footprint in Venezuela; deploying (for the first time) its most advanced nuclear-capable warship; and sending a research ship capable of mapping and cutting undersea cables, as well as two other naval research vessels

[1] R. Evan Ellis (2016). "Thinking Strategically About Latin America and the Caribbean."

to operate near our Homeland. Under Russian and Cuban tutelage, oppression in Venezuela is ever-increasing. The illegitimate former Maduro regime arbitrarily arrested for political reasons more than 2,000 individuals in 2019. Between January 2018 and May 2019, regime-aligned security forces killed more than 7,000 people, and many of these killings may constitute extrajudicial killings.

These malign state actors are part of a *vicious circle of threats* that deliberately erode stability and security in the region. This vicious circle is framed by systemic issues of young democracies, often with weak governance and porous legal frameworks, exacerbated by a propensity towards patronage and corruption that is deliberately exploited by transnational criminal organizations (TCOs), external state actors (such as the PRC and Russia), and violent extremist organizations (VEOs) to advance their own ends at the expense of United States and partner nation security. This vicious circle continues to negatively impact our Homeland, most acutely in the form of illegal immigration and illicit drug flows, but also in other, more harmful ways. Due to high levels of insecurity and frustration with government corruption, support for democracy and democratic institutions in Latin America and the Caribbean is at its lowest levels in 15 years,[2] providing further openings for malign state actors to increase their influence. A number of countries are experiencing democratic backsliding, with others sliding towards outright authoritarianism.

Positive Trends. These threats are real, and they demand a sense of urgency. But so do the opportunities. Protests in Bolivia, Chile, Colombia, Ecuador, Honduras, and Peru demonstrate that, while democracy may be troubled, citizens are exercising democratic rights to uphold their constitutions. Brazil, Bolivia, and Ecuador now recognize the Cuban threat to freedom, expelling thousands of Cuban officials, some even accused of instigating social unrest. Guatemala, Costa Rica, and El Salvador are doing more to stop the flow of drugs and irregular migration towards our border; Jamaica and Trinidad and Tobago regularly deploy to regional disaster response efforts, to include supporting the Bahamas after Hurricane Dorian; and Colombia, Brazil, and Chile continue to grow their contributions to global security.

Improving Performance & Accountability. The men and women of USSOUTHCOM are moving out to break the vicious circle of threats and sustain our security advantages in the Western Hemisphere. While doing so, we remain committed to making good use of every taxpayer dollar Congress entrusts to us. Over the past year we undertook a detailed review of all aspects of our organization to gain efficiencies and support the Department's reform efforts. I look forward to discussing how we are freeing up time, money, and manpower to invest back into our top priorities: strengthening our strategic partnerships, countering threats, and building the readiness of our team.

Our Approach. The NDS highlights the importance of alliances and partnerships—which is exactly right for USSOUTHCOM, where strengthening partnerships is the best way to counter threats, enhance our collective readiness and capability to meet global challenges, and maintain the regional balance of power in favor of the United States. We also support the interagency, including the Department of State, U.S. Agency for International Development, Department of Homeland Security, and the intelligence and law enforcement communities, reinforcing the importance of leveraging all tools of national security.

We break the vicious circle and outcompete Beijing and other competitors by playing to our strengths of shared values, professionalism, and equipment built to last, and by investing in education, intelligence sharing, personnel exchanges, exercises, joint operations, and security cooperation. More than anything else, persistent presence matters in this fight. Like athletes, we have to be present on the field to compete, and we have to compete to win.

Threats to our Neighborhood: Malign State Actors. As the Department of Defense has prioritized the Indo-Pacific region, Beijing has aggressively turned its attention to the Western Hemisphere, exporting corrupt business practices and disregard for international law and standards to countries already struggling with government corruption and weak governance. The competitive space is truly global and all-domain as SOUTHCOM plays a vital role in the effort to outcompete the PRC and Russia. Nine nations in the Western Hemisphere (out of 15 worldwide) still recognize Taiwan—a fact that has not gone unnoticed by Beijing, which is engaging in persistent (and successful) dollar diplomacy to lower that number to zero. With 19 Latin American and Caribbean nations now participating in the One Belt One Road Initiative and pledges of at least $150 billion in loans, the PRC is now the region's largest investor and creditor, practicing the same type of predatory financing and

[2] 2018/2019 AmericasBaromter report, funded by USAID. Available at: *https://news.vanderbilt.edu/2019/10/14/support-for-democracy-in-a-slump-across-americas-according-to-new-survey/*

"no strings attached" largesse it has wielded in other parts of the world. On the defense side, this includes "gifts" of equipment to regional militaries and aiming to copy our successful military education program.

Beyond One Belt One Road, 25 out of 31 countries in the region host Chinese infrastructure projects. Most concerning, certain investments have strategic value for future military uses. Chinese investment in numerous deep water ports and infrastructure on both sides of the Panama Canal could enable the Chinese military to threaten sea lanes vital to global commerce and the movement of United States Forces. Fleets of Chinese-flagged fishing vessels routinely violate the sovereign rights of coastal states to conduct illegal fishing in the Exclusive Economic Zones (EEZs) of Latin American countries, while Chinese mining and infrastructure projects have created lasting environmental damage. Beijing sees immense value in South America's strategic location for space activity and is actively pursuing additional access to regional space infrastructure. With telecommunication projects in 16 countries, Huawei and ZTE provide the backbone of commercial and government communication systems, providing a backdoor for the Chinese Government to monitor or intercept official information we share with our partners. Beijing is also gaining real-time, street-level situational awareness by selling surveillance technology through its "Smart Cities" initiative—the same technology the Chinese Communist Party uses to monitor and repress its citizens. [3]

Russia continues to play the role of "spoiler," seeking to sow disunity and discredit the United States within our own hemisphere. As it does across the world, Russia meddles in regional affairs by spreading false information on its media platforms and engaging in malicious cyber activity. Russia's ability to disseminate disinformation is considerable; videos posted on Russia Today (RT) En Espanol's social media platforms received more views in 2019 than any other Spanish-language news source. While Moscow denies having a military presence in the region, Russian "advisors" continue to prop up the former Maduro regime. Beyond Venezuela, the sanctuary of cozy relationships with authoritarian governments in Cuba and Nicaragua provide Russia with footholds close to our Homeland, giving Putin strategic options. Cuba in particular is the gateway for Russia's access to the Western Hemisphere, allowing Russia to collect intelligence in close proximity to the United States.

Iran, which has exported its state-sponsored terrorism to the Americas in the past, maintains facilitation networks and raises funds through its proxy, Lebanese Hezbollah. Some Hezbollah supporters cache weapons and raise funds, often via charitable donations, remittances, and sometimes through illicit means, such as drug trafficking and money laundering. Having a footprint in the region also allows Iran to collect intelligence and conduct contingency planning for possible retaliatory attacks against United States and/or Western interests.

After more than six decades, Cuba remains a bastion for authoritarianism, an exporter of malign ideology, and an underlying driver of instability in the region. Cuban intelligence personnel support and counsel non-democratic leaders, including directly propping up the illegitimate Maduro regime in Venezuela. Cuba, Russia, and the PRC all collect intelligence against the United States and seek to undercut United States initiatives region wide. Although Cuba portrays the thousands of Cuban medical personnel it sends as humanitarian, such aid routinely includes intelligence collection, propagation of Cuba's failed ideology, and advancing a distinctly anti-United States agenda.

The final malign actors—Maduro and his cronies in Venezuela—pose one of the most direct threats to peace and security in the Western Hemisphere. Emboldened by Russian, Chinese, Iranian, and Cuban protection and patronage, Maduro has allowed Venezuela to become a safe haven for the ELN, FARC dissidents, and drug traffickers while the Venezuelan people starve. If UN projections for 2020 hold, the number of Venezuelans fleeing their country could soon surpass the Syrian exodus. To date, nearly 4.8 million have fled, placing significant strain on Colombia, Brazil, Peru, Ecuador, and other host countries in the region. Colombia bears the brunt of this crisis and has generously stepped up to support the over 1.6 million refugees while at the same time having 7.8 million internally displaced persons of their own, the largest IDP population in the world. The consequences of the Venezuelan crisis will last generations; a post-Maduro Venezuela will require significant support to help Venezuelans address the decades of mismanagement, widespread insecurity, and corruption of defense and other institutions in order to realize the natural richness of their resources.

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[3] Because of the intimate relationship between Chinese businesses and China's National Intelligence Law, citizens living in democracies in the Western Hemisphere could have their entire digital identity under the surveillance of the Chinese Communist Party.

What We're Doing. As I mentioned earlier, we have to be on the field to compete, and when we are on the field, our impacts are positive and long-lasting. In the absence of an enduring U.S. military presence, recurring rotations of small teams of Special Operations Forces, soldiers, sailors, airmen, marines, coast guardsmen, and national guard personnel help us strengthen partnerships and exchange critical expertise. The National Guard through the State Partnership Program (SPP) is uniquely positioned based on its dual military experience to provide a persistent and sustained presence to our partner nations by means of senior leader visits, exchanges, and cooperative training and exercises in areas ranging from humanitarian assistance to cyber. In Central America, our Joint Task Force-Bravo (JTF–B) and Marine Corps Special Purpose Marine Air-Ground Task Force (SPMAGTF) build collective response and security capability and readiness in Army and Marine Corps Reserve Forces and partner militaries. Expanding on the 2018 deployment, Brazil, Colombia, and Peru integrated into the SPMAGTF last year, building interoperability for expeditionary operations. Once again, these three partners also formed part of the hospital ship USNS *Comfort's* multinational team. The 2019 *Comfort* mission delivered significant returns, providing world-class medical care to nearly 68,000 patients in 12 countries, reducing suffering caused by the man-made crisis in Venezuela, and enhancing medical readiness in the United States Navy, our partners, and allies. JTF–B facilitates strategic access to Central America, builds enduring relationships with partner nations, and response to contingencies to create regional stability and security. JTF–B provided medical care to over 20,000 partner nation patients, rapid response capability for a wide range of contingencies, and assigned forces to participate in exercises.

As directed by the NDS, we're deepening relations with "regional countries that export military capabilities to priority regional and global security challenges." Recently designated a Major Non-NATO ally and the newest partner in the State Partnership Program (SPP), we work closely with Brazil on a range of priority missions. Chile exports its security expertise to both the Asia-Indo-Pacific region and Central America, and is actively partnering with us and United States Army South to develop a concept for a combined, large-scale, combat-focused exercise later this year. Colombia—NATO's only global partner in the region—seeks to share its humanitarian demining and counter IED expertise with NATO allies while also serving in South Korea as part of the United Nations Command, a legacy that stems from its participation in the Korean War. Panama has been a particularly strong supporter of United States efforts to hold global malign actors accountable, de-flagging numerous vessels suspected of carrying cargo in violation of United States and international sanctions. El Salvador punches well above its weight having supported coalition operations with 12 rotations to Iraq and Afghanistan and applying training and equipment received via the Global Peace Operations Initiative (GPOI) in their current deployments to the UN Mission in Mali.

In the face of the PRC's and Russia's global assault on international norms, engagement on shared values is more important than ever before. As I told this Committee last year, education, training, and security cooperation efforts like the SPP and the Combatant Commanders Exercise Engagement and Training Transformation (CE2T2) Program and the Department of State's International Military Education and Training (IMET), Foreign Military Sales (FMS), and Foreign Military Financing (FMF) are game changers for us. With modest investments of time and money, these programs are helping us reinforce mutual understanding, shared values and culture, and doctrine. Along with IMET; our Human Rights Initiative; noncommissioned officer development; and Women, Peace, and Security programs enhance the professionalism of the region's militaries and security forces. In particular, USSOUTHCOM's decades-long commitment to promoting respect for human rights has become a cornerstone of our strong partnerships with like-minded militaries. These efforts are among the most effective ways we can expand competitive space and outcompete any malign state actors, and encourage our partners to hold the PRC, Russia, and others accountable to the Inter-American values of peace, democracy, rule of law, and respect for human rights.

Another way we blunt malign influence is by sharing information about Beijing's predatory economic practices, the security risks associated with Chinese technology, and activities by Russia, Iran, and their authoritarian allies that undermine regional sovereignty and security. In addition to expanding our information sharing efforts throughout the hemisphere, we are also working multilaterally with partners in the region to enhance our understanding of the security threats posed by the Venezuelan crisis, which in turn assists with multinational efforts to plan for longer term recovery and stability once free and fair democratic elections are held.

We also support the NDS' focus on developing operational concepts to enhance Joint Force lethality while building interoperability with allied and partner forces.

We leverage our science and technology portfolio in high-end multinational exercises like UNITAS and PANAMAX, providing opportunities for the Services to test new warfighting capabilities in a low-risk coalition environment. Through our Caribbean-focused Tradewinds exercise, we are now laying the groundwork for a combined task force that can counter a range of threats and enable sea control and denial operations. We conduct cyber training and capacity building with partners like Chile, Argentina, and Brazil in an effort to build defensive cyber capabilities and establish shared cyber situational awareness in the region. We continue to work closely with other U.S. combatant commands and the Joint Staff to ensure globally integrated plans, operations, and exercises reflect the threats and opportunities in this hemisphere.

Threats to Our Neighborhood: TCOs and VEOs. As the NDS recognizes, "non-state actors also threaten the security environment with increasingly sophisticated capabilities." TCOs engage in a wide array of illegal activities that generate approximately two trillion dollars in illicit proceeds annually, including drug and weapons trafficking, human smuggling, money laundering, and illegal mining. We see these impacts directly in our Homeland; drugs have killed 700,000 Americans since 1999,[4] costing our nation billions in criminal justice, healthcare, and productivity costs—in addition to the suffering caused by shattered and lost lives. Through corruption and violence, TCOs also challenge and erode the governance of partners that we rely on to advance regional and global security, threatening to reverse decades of successful U.S. policies and security investments.

Collectively TCOs exacerbate the already insecure environment facilitating opportunities for malign actors to expand influence, and VEOs leverage to move people and weapons through our hemisphere. This latter vulnerability is particularly troublesome; there is an interconnected system of pathways that spans our neighborhood, running through the Caribbean, and up and down North, South, and Central America. Many of these pathways lead directly into our Homeland, and anything can move on them—for the right price. This ongoing threat was illustrated in 2019 by several successful U.S. law enforcement operations against human smuggling networks, which continue to enable the movement of individuals with terrorist links, many of whom attempt to enter the U.S. Homeland illegally.

What We're Doing. We're strengthening partnerships with countries that contribute military capabilities to regional security and beyond, with a focus on enabling combined operations and building interoperability to stop the flow of drugs to the U.S. Homeland, reduce the effectiveness of priority TCOs, and prevent VEOs from leveraging regional vulnerabilities to do us, or our partners, harm.

Colombia sees the fight against cocaine trafficking as a shared responsibility, and one in which they are sacrificing blood and treasure to meet their commitment to halve cocaine production by 2023. Last year Colombia built a 20-nation coalition to conduct maritime counterdrug operations while working closely with Panama and Costa Rica to seize drugs headed to the United States. In 2019, Colombia also manually eradicated 82,000 hectares of coca plants, at the cost of almost 600 police and military killed or wounded, largely due to IEDs emplaced to protect the coca fields. Inside of Colombia, their security forces also disrupted and destroyed over 300 cocaine-producing labs, preventing over 400 metric tons of cocaine from ever leaving the country. Colombia continues assisting us with Central America's security challenges, training 5,700 military and police from six Central American countries through the United States Colombia Action Plan program since the program's inception in fiscal year 2013. We continue to enable Colombian operations against priority narco-terrorist organizations like the ELN and FARC dissidents, yielding significant returns on security in Colombia and the United States.

In the Caribbean and Central America, we continue to focus our capacity-building efforts on improving border security, drug interdiction rates, and institutional effectiveness. Jamaica has now integrated its self-funded maritime patrol aircraft into Joint Interagency Task Force South counterdrug operations, enhancing our operational reach and effectiveness. After receiving sustained training by Naval Special Warfare teams, Guatemala's Fuerzas Especiales Navales (FEN) is now entirely self-sufficient and responsible for more than 80 percent of Guatemala's drug seizures. Like Guatemala, Costa Rica, Panama and El Salvador are applying United States-provided training and equipment to regularly interdict drug shipments more than 100 miles from shore, keeping those drugs off the streets of cities across America from LA, to Tulsa and Providence. Honduras, Guatemala, and El Salvador are leveraging our Civil Affairs support and Humanitarian Assistance Program to better address factors driving violence and migration to our doorstep. Additionally, the

[4] https://www.cdc.gov/drugoverdose/epidemic/index.html. From 1999 to 2017, more than 700,000 people have died from a drug overdose.

William J. Perry Center for Hemispheric Defense Studies is a force multiplier across the hemisphere, helping us deliver the right, focused support at the strategic level and reinforce accountability and transparency in defense institutions.

In the counterdrug mission, we continue to deliver high returns on modest investment. Last year, the international and interagency "team of teams" at JIATF–South helped keep 280 metric tons of cocaine off U.S. streets. JIATF–South-led interdictions at sea account for almost four times the cocaine seized by all domestic and border enforcement efforts combined. In an operating area that is 11 times larger than the United States: the Coast Guard and JIATF–South continue to be among the best investments in the U.S. Government.

In fiscal year 2020, thanks to congressional support, we are filling detection and monitoring (D&M) capability gaps through innovative solutions like the Multi Mission Support Vessel (MMSV). Having only recently deployed, the MMSV already has supported the disruption of over 3000 kilograms of cocaine, nearly 8,000 pounds of marijuana, and the detention of 17 drug traffickers, while also keeping a low profile vessel from reaching our shores. It also served as a capacity-building platform in the Dominican Republic, a key transit point for cocaine trafficking into major United States cities like Washington DC, Miami, and Philadelphia. We are also applying commercially-available technology like unmanned aircraft systems to increase the MMSV's ability to conduct D&M and provide information to partner nations who are conducting the interceptions. In addition to the MMSV, we now have one Littoral Combat Ship (LCS) deployed in the region that will provide needed naval capabilities and technological advantage. We look forward to future U.S. Navy ship deployments—these will be game changers.

On the counterterrorism front, we continue to partner with SOCOM, and support the work of our interagency partners to stop individuals with known or suspected ties to terrorism who are attempting to exploit the region's weak border security to move into the U.S. Homeland. We deepened counter threat finance collaboration with the Treasury Department, supporting the designation of a Brazil-based member of al Qaeda last year. Additionally, our successful track record leveraging the DOD Rewards Program continues to deliver meaningful returns for minimal investment; in 2019, we paid $1.2 million for 72 rewards (information) that led to the neutralization of 97 terrorists, the seizure of 80 weapons caches, and the destruction of 22 drug labs.

In the region, our strong partnership with Trinidad and Tobago continues to pay dividends for international efforts targeting extremist networks supporting ISIS and other dangerous groups. Our biometrics cooperation enabled Panama to identify and stop known or suspected terrorists last year, while we deepened collaboration with Brazil, Chile, Argentina, and Paraguay to expose malicious activities by supporters of terrorist groups like Lebanese Hezbollah.

Detention operations at Joint Task Force Guantanamo (JTF–GTMO) support the global fight against violent extremism by keeping enemy combatants off the battlefield. As we take proactive steps to address infrastructure issues associated with continued detention operations, the JTF–GTMO team remains the epitome of professionalism, conducting safe, legal, and humane detention operations that protect our Homeland and U.S. troops serving in harm's way.

Building Our Team. To deliver meaningful results for our Homeland's defense, we are focused on building an effective, efficient, and resilient team.

For decades, USSOUTHCOM's modest budget and small footprint have encouraged us to embrace innovative, low-cost/high-return approaches. Over the last five years, we absorbed 25 percent cuts to our personnel, a 10 percent reduction to our Exercise program, and a steady decline in available assets and forces needed to support our mission. We've tried to absorb these cuts as smartly as possible to minimize operational impacts, and we continue to look internally to gain efficiencies, improve performance, and get the most from every taxpayer dollar.

With this mindset, we are leaning forward to support the Department's current reform efforts. Our revised campaign plan drove a review of all fiscal year 2020 operations, activities, and investments. We eliminated over 200 lower priority events and are refocusing on priority threats and strategic partners. We've also revised our joint exercise program to make it more effective and more relevant. In 2019, we sharpened our emphasis on building readiness of U.S. Forces and supporting Joint Force experimentation. We are now reforming our other major exercises to more directly support the global competition with the PRC and Russia. Other areas we are examining for efficiencies include JTF–GTMO manning, contracts, and theater posture.

At our headquarters, we streamlined internal processes, improved support to military and civilian families, and enhanced our training and professional development programs to build a more ready, results-oriented organization. We continue to work

closely with the Department of the Army and local South Florida community to address housing and high living costs impacting our men and women. At JTF–GTMO, we undertook a comprehensive review of existing facilities to determine long-term requirements for mission success, the safety of our forces, and operational efficiency. We are also taking steps to improve quality of life and resiliency of JIATF–South's headquarters building at Naval Air Station Key West. As the southernmost base in the continental United States, NAS Key West has significant strategic value in defending against a wide range of threats to U.S. national security. I look forward to working with the Congress on our housing issues in the year ahead to ensure our men and women get the support they need.

Congressional Support. I'd like to repeat last year's invitation to members of this Committee to visit our neighbors and reinforce the message that we value this region and the role our partners play in keeping our neighborhood safe. Your presence, attention, and engagement, along with that of other key leaders, matters. I also want to thank Congress for passing a defense appropriation bill. Operating under a continuing resolution is disruptive to mission and personnel. Confidence in stable, predictable budgets will reassure friendly nations that we are reliable security partners.

Broadly speaking, we need tools that allow us to maintain our competitive edge: persistent presence and engagement. We appreciate congressional support for initiatives that have streamlined security cooperation processes and help ensure we remain the security partner of choice. Your continued support to these security cooperation programs and capabilities like IMET and the Perry Center allow us to build trust and long-term relationships that strengthen partnerships and grow contributions to address regional and global threats. Similarly, support for analytic initiatives focused on open source/publicly available information helps mitigate reduced intelligence resources and provides a steady stream of useful information (especially about malign state actors) that we can share with partners.

As this Committee is aware, while improving efficiency in the counterdrug mission, we still only enabled the successful interdiction of about nine percent of known drug movement. That is a small increase over previous years, but still significantly below where we need to be. We appreciate your continued support to creative solutions like the MMSV. As the U.S Coast Guard provides the bulk of our counterdrug forces, the acquisition and deployment of their Offshore Patrol Cutter will be critical to keeping drugs off our streets and ensuring the security of the Western Hemisphere. Each additional force package (maritime patrol aircraft, flight deck capable ship, embarked helicopter, and law enforcement detachment) enables the disruption of 35 more metric tons of cocaine.[5] Grey hulls, in particular, still serve as a powerful deterrent, sending a clear message to our competitors, and a reassuring one to our friends. They can also yield multiple cross cutting returns. For example, while participating in our UNITAS exercise last year, the USS *Michael Murphy* supported the interdiction of a low-profile submersible vessel carrying more than 2,000 pounds of cocaine, simultaneously yielding a treasure trove of intelligence, demonstrating rules-based maritime behavior, and providing coalition training opportunities for the U.S. Navy.

Conclusion. I'd like to close as I began: with a note of caution, and one of hope.

Our ability to address global challenges at manageable cost depends on the security of our borders and the stability of our hemisphere—both of which are under assault. Likewise, our ability to advance diplomatic and economic goals depends on the strength of both our partnerships and our shared values. We've seen what happens when we ignore security challenges in the Western Hemisphere. In the past decade, we've seen migration crises, the influx of deadly drugs, increased presence of malign actors, and negative trends in democracy.

We're now in 2020. We need to be clear-eyed about both the security threats we face now and in the near future, and the significant opportunities that await only with our initiative and engagement in the hemisphere. There is no other region we depend upon more for our prosperity and security, and with which we are more closely tied through bonds of family, trade, and geographic proximity, than Latin America and the Caribbean. Our partners want to stand with us, and for our shared values. As I hope I've conveyed, the right, focused attention and modest investments go a long way in this part of the world, paying significant security dividends to both our global efforts and to our Homeland's defense. When we don't engage in our neighborhood, our competitors benefit, and our Homeland security pays the price. When we do engage, we reduce threats to the Homeland and limit opportunities for

[5] USCG National Security Cutters, Offshore Patrol Cutters, and/or the Navy's Littoral Combat Ship could fill this requirement, providing us with a game-changing edge, providing unique capabilities to engage drug traffickers where they are most vulnerable.

adversaries to operate in close proximity to us, and there is no better return on investment than that.

Thank you for your continued support to the men and women of the USSOUTHCOM team and their families. I look forward to your questions.

Chairman INHOFE. Well, thank you, Admiral Faller.

The comments I made in my opening statement I am very sincere about because a lot of people do not realize, when they look at all of the comms that we have around, did we ever have the right resources relative to the threats that are posed. I am going to ask you each the same question, which I have worded very carefully because we hear from so many people who are not aware of the threat to our national security that you would find in SOUTHCOM and in Africa. Why does it really matter in terms of our national security?

I am going to start with you, Admiral Faller. You have touched on it. I know you believe in it, but the question would be, why should the American people care what China and Russia are doing in Africa and Latin America? Specifically, how does what they are doing threaten our national security? I know the President is very interested in this. He wants to make sure that we do not have resources in places that do not have a direct threat on our national security. I would like to have you restate what the direct threat is out there to our national security.

Admiral FALLER. Senator, this region matters. It is the cultural values. It is the extensive interaction we have in trade. We have a positive trade balance with the region, but that is eroding. We are the number one trading partner. China is fast catching us in that regard.

Panama Canal, strategic access. Two-thirds of the traffic that goes through that has an economic direct tie to the United States.

I look around the region and I see China working on multiple port deals, IT [information technology] infrastructure, dams, mining, logging, fishing, including significant illegal fishing, illegal mining and illegal logging. I look at the port access that they are pursuing in El Salvador, Jamaica, Bahamas. I ask myself the question why would China want to buy an island and lock up a 99-year lease for most of the coast of El Salvador, right here within a 2-hour flight of the continental United States. They are trying to achieve positional advantage right here in our neighborhood and that is alarming and concerning to me. It drives a sense of urgency with which I look at this competition.

Chairman INHOFE. You know, the terrorists that are out there—we are not really talking about just locally there, even in El Salvador and the rest. You are the door to this country, right through your area, and I think you have stated that very well.

The same thing to you, General Townsend. I may not have mentioned this in the opening statement, but if you are looking for places to save, I cannot see that you would find it there. I mean, you have a total of what? Six thousand to six thousand five hundred people in the whole continent. Of that, most of those, 4,000 of those, are in Djibouti. Of course, they have other missions outside of the continent of Africa.

But when you go to West Africa, you have only got what? Twelve hundred to thirteen hundred people. It is not like the other comms

with 75,000, 80,000, and 100,000 people if what you are trying to accomplish is to reduce our footprint around the world.

Specifically in Africa, talking about how that directly affects our national security.

General TOWNSEND. Thank you, Chairman.

You asked why should America care about Africa. For a lot of the same reasons that Admiral Faller talked about America caring about South America, although it is a little bit more geographically distant.

The strategic access that America needs to the African continent rests on the fact that it is that global crossroads I talked about in my opening statement. There are also tremendous natural resources there, to include rare earth minerals that America needs. There is also a burgeoning population there, and there is good and bad news with that. It is a tremendous potential opportunity for the future, also significant risk. I think that in the past maybe we have been able to pay less attention to Africa and it would be okay for America. I do not believe that is the case for the future.

As far as the threats go that you asked about, China and Russia are every bit as busy in Africa today and for the same reasons that Admiral Faller talked about them being busy in South America. They are acting on their own behalf for positional advantage and Russia, in particular, pursuing extractive ventures. China and Russia are seeking to counter the strategic access that we need for American security and American prosperity.

Secondly, the violent extremist organizations that are on the continent both in the east and in the west. Some of those groups threaten the American Homeland today. Some of them will potentially be a threat in the future years.

Chairman INHOFE. I appreciate that. I am glad you mentioned in your opening statement the IMET program because China realizes what we have done with that program, how well that has served us. They are now emulating that. They actually had a meeting in Beijing—I think they had all 52 countries represented there, talking about how they were going to expand that program, put more money in it. You are watching that, I am sure, very carefully throughout your whole area.

General TOWNSEND. Yes, Chairman.

Chairman INHOFE. Okay, good.

Senator Reed?

Senator REED. Well, thank you very much, Mr. Chairman.

Thank you again, General Townsend and Admiral Faller.

I think it could be safely said that both of your COCOMs [combatant commands] are conducting economy of force operations. Is that right, General Townsend?

General TOWNSEND. That is what we are doing, both of us.

Senator REED. Admiral Faller?

Admiral FALLER. We are at a very low level of force. Yes, sir.

Senator REED. We have to do that, but we have to do it smartly and wisely and that means cooperation and collaboration across our government and also collaboration with other governments.

General Townsend, the French are now conducting significant operations in the Sahel part of Africa. If we drew down, what sig-

nal would that send and what practical consequences might that have for their cooperation in the fight?

General TOWNSEND. Senator Reed, as you pointed out, the French are the lead international partner in the Sahel region of West Africa. They have about 4,500 troops there that are engaged in active operations every day to counter the threat that is there. The threat comes from both al Qaeda groups and ISIS groups there. That threat is very serious and that threat is on the advance, and I think the French would say—in fact, they have said publicly recently—that their efforts are not having the desired effect that they need. We are supporting both the French and the larger international effort there.

There is a significant European effort there. Our position, the position of the Department of Defense, is that the Europeans need to step up and do more in the Sahel to help the French. The French are calling on Europe to step up and do more. I absolutely think that is the right thing to do. But as we see the violent extremists advancing, if we were to withdraw support from the French precipitously, then that would not go in a good direction. I think what we have to do is we have got to synchronize our support and the removal of support, if we decide to do that, with the arrival of European support. But there is a chance there that the French can offset that.

Senator REED. What you are saying is it would not be particularly coherent if we are telling the EU [European Union] to step up support of France as we reduce our support.

General TOWNSEND. I think there is certainly a timing issue there, Senator, absolutely.

Senator REED. Admiral Faller, following up the point that the chairman made, which I think is an excellent point, programs like IMET are just absolutely critical, and in your AO, China is aggressively pursuing these IMET options. You indicated that in certain countries—I think it was El Salvador—there is one IMET slot that the United States offers and 50 that the Chinese offer. Is that——

Admiral FALLER. Recently an example was provided along those lines where they have come in analyzing how many folks we were sending to Carlisle, and they were going five times over that to their war college in China, which they have copied from our program and translated it into Spanish. We talked to the students that come back from that to get a sense for the quality and the approach. It is all based off of the U.S. doctrine.

Senator REED. It has to be pointed out that the IMET program is funded by the Department of State. One of the critical programs we are talking about is not within DOD, which again suggests that this whole-of-government approach—we have to look not just at funding for your COCOM but are we putting the money in the State Department? Are we putting money into AID [U.S. Agency for International Development]? Are we putting money into various programs that will allow you to conduct a much more efficient economy of force operation? Is that fair?

Admiral FALLER. That is an accurate statement. We really depend on that IMET, Senator.

Senator REED. Going back to Africa, General Townsend, you indicated that the extremist threat is all through the continent, but my

sense is that al Shabaab and others are still contemplating projecting power outside of Africa, which is a much more critical threat to the United States. Is that fair?

General TOWNSEND. Senator, that is accurate.

Senator REED. We are going to continue to focus on that threat to the United States particularly.

General TOWNSEND. I believe we should.

Senator REED. Finally, I think again the issue here is maintaining appropriate force and also maintaining the coordination with our government and with our allies. You are pursuing that, and I think you should continue to do so. Thank you.

Chairman INHOFE. Thank you, Senator Reed.

Senator Rounds?

Senator ROUNDS. Thank you, Mr. Chairman.

Gentlemen, first of all, thank you for your service to our country.

I would like to begin by just talking a little bit about the disinformation and influence operations which Russia has used successfully in a number of different instances, but specifically what plans and actions that you have and your team have created to address the technological advances and the changing character of war to assure that America maintains a strategic advantage in your areas of operation.

Admiral FALLER. The disinformation campaign that Russia has been on is truly about, in all instances, painting the United States in an inaccurate light. One example is reporting that I was on the border of Venezuela about to lead an invasion force. Another example was they twisted it just enough in an article in RT [RT International] to say that I had said something that was at odds with the Vice President of the United States, which was complete baloney. Their largest by volume, outside of the Russian language, effort in social media is in Spanish. You have to ask what is the national interest of Russia in that disinformation here in our neighborhood and around the world, and it is concerning to us.

We have countered within our means in information operations (IO), military information, and support a strong relationship with the State Department and alignment in messaging, information with some increased authorities in cyber to go after them and put the truth out and try to make a dent in that space. But more needs to be done clearly, and more should be done to take advantage of machine learning and those types of skills that the Department has embarked on to really get after to thwart their disinformation campaigns.

Senator ROUNDS. General Townsend?

General TOWNSEND. Senator, not unlike SOUTHCOM, we see the same kind of disinformation campaigns and not just from Russia but from other actors such as Iran. Recently Iran announced that I was killed at the engagement at Manda Bay. I am glad to hear that is exaggerated.

There is fairly low-tech warfare in Africa overall, but we do see armed UAVs [unmanned autonomous vehicles], unmanned vehicles armed, now being provided by multiple actors, China, Turkey, et cetera. We also see sophisticated air defense systems. We also see technologies that have I think even greater impacts like the Chinese smart city technologies where they are coming in and, in the

interest of public safety and security, they are offering to equip African cities with camera systems, surveillance systems all over, facial recognition technologies. Of course, we know that all of those systems are reporting back to China first before they report to the African country where they are established. I think that the growth of high-tech is a concern certainly in Africa.

Senator ROUNDS. Thank you.

I think part of the challenge we have is sharing that, look, the propaganda has never really quit from our adversaries. They understand its value. They are very good at it. They simply advance to using social media and other means in which to really bend things their direction. In doing so, they influence individuals who really in many cases share the same values that we share in this country.

The IMET program has been mentioned several times here, and I think it is critical that we continue to be able to have communications and relationships with what is in many cases perhaps one of the most stable parts of any one of these nations' governments and that is their military. While their civilian leaders come and go, in many cases they have a stable force of professionals. The question is, do they find and do they understand the way that we do business to be appropriate and a better way than what our adversaries offer them?

I would just like to once again offer each of you the opportunity to talk a little bit about IMET at this time in which I think some people question whether or not it is a valid program and how critical it is and how inexpensive it is for us to continue to have that relationship with the militaries from the different countries.

Admiral FALLER. The value is in the building of trust. You get to know your shipmate, your battle buddy. You share experience and doctrine. A recent example. In El Salvador, the new president came in, favorable connections to the United States, appointed a new chief of defense and minister of defense. The minister of defense is a Naval War College grad. The chief of defense is an Army War College grad. You can sit down around a roundtable and have a serious conversation without stilted talking points about the real challenges and opportunities and the complexity of making progress. That is just one of many examples I could cite, Senator.

Senator ROUNDS. Thank you.

General TOWNSEND. Senator, just like Admiral Faller has explained, IMET is invaluable to us. I think it is a long-term way to influence a government and a military by training those people who grew up to be the chief of defense, and that same kind of thing is found in Africa as well.

I think the United States is their preferred partner for a number of reasons, not the least of which is our competence and capability but also our values. That is part of that. I think that is a strong thing that is imparted through IMET.

Senator ROUNDS. Thank you.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Shaheen?

Senator SHAHEEN. Thank you, Mr. Chairman.

General Townsend, Admiral Faller, let me begin by adding my condolences to those that have been expressed already for the

servicemembers lost in the month of January. I want to particularly call out Captain Ryan Phanouf from Hudson, New Hampshire who was an airman lost in Afghanistan earlier this week. I know that all of New Hampshire mourns his loss and the loss of everyone and sends condolences to all of the families. Thank you.

I want to begin, Admiral Faller, with where we are with drug interdiction. When you were here last year, we talked about the drug interdiction efforts which are still so important to States like New Hampshire where we have a huge opioid epidemic still and are seeing heroin now coming into the country. Can you talk about what progress has been made and the role that the USS *Detroit* has played in improving interdiction efforts?

Admiral FALLER. Senator, as we have discussed, the deaths due to the narcotics overdoses, drugs are too many and are a national security challenge. Those pathways that they come through just as easily are used by terrorists and other illicit materials. We cannot do enough to get after that challenge right here in our neighborhood and how it erodes communities across the country.

Over the past year, we have focused on building our partners to get them more into the game. Fifty percent of our interdictions last year were partner-enabled, and nations like Colombia have stepped up to lead their own exercises and operations, recently an Orion operation where we had many metric tons which was lives saved here. Eighteen nations participated, Colombian led, and all we did with the United States was participate. That is a key effort, and we have got to do more there.

In our own efforts, intelligence sharing is key—human intelligence and intelligence, surveillance, reconnaissance (ISR) from platforms. We need more intelligence, surveillance, and reconnaissance. Our human efforts were funded, but they were funded above our core budget in an unfunded requirement. A key area to look at and how do we get more efficient, but also apply leverage there.

Then finally in our platforms, we depend on ships. At the end of the day, it has got to be a Coast Guard cutter. Our Coast Guard performed brilliantly, supplying more ships than they had even promised through the allocation process. Our Navy stepped up this year with the USS *Detroit.* We need more ships. We think the number of Navy ships would be about three to sustain the presence and pressure. The pressure matters on these nations, and that pressure has got to be at the source in coca eradication and at the street here in the United States. Colombia has made progress at that source site, eradicated cocaine with the Colombian chief of defense on the Ecuador border. They have made progress, and the result has been that deaths are down but still too many. We had almost a record year in interdictions but still not enough.

Senator SHAHEEN. Good. Well, thank you for those efforts, and we hope that we can continue to do more to support them.

This question is really for both of you. We have now, for the last 2½ years, had the Women, Peace, and Security Act in effect. DOD has made significant progress in implementing that. We just put $4 million for gender advisors into the 2020 defense budget.

Can you talk about the successes that you have seen both in SOUTHCOM and AFRICOM because of the effort to better integrate women and be able to appeal to those women in Africa, the

women in Latin America who we need to address if we are going to be successful?

General TOWNSEND. Thanks, Senator. You asked me about Women, Peace, and Security at my confirmation hearing 6 months ago, and I told you I did not know much about it but I would look into it. I was able to actually attend one of these forums.

At AFRICOM, Women, Peace, and Security is integrated into every event that we do. We see some advantages here. It is not just about promoting the role of women in the armed forces, but it has an impact across their societies as well. It is integral to everything we do, and we have had a communications symposium, which I was fortunate enough to attend. We have a female intel officer training program. There is a seminar that is about to kick off in a Flintlock exercise that we are about to start. Those are just some examples. We try to integrate some of that into every event.

Senator SHAHEEN. Good. Thank you.

Admiral FALLER. Similarly we integrate it in every event, Senator. Recently Ambassador Manes and I were in Colombia. We did a roundtable with some key women warriors from the Colombian Army. We had the chief of defense from Colombia, their chief of their army, their chief of the air force. In that audience of women—there were about 50 of them—were nine command sergeant majors. I will tell you what. They were getting after it, and it was motivating. Afterwards, the chief of the Colombian Army came and said, hey, can you do some more of that with us because it really brings out the competitive spirit. The reason why? We are better when we are integrated and stronger when we are integrated.

Senator SHAHEEN. Well, thank you both very much. I think it is a very important model for us to show to the rest of the world, particularly in developing countries in Africa and Latin America.

Chairman INHOFE. Senator Ernst?

Senator ERNST. Thank you, Mr. Chair.

I would second that. Thank you, Senator Shaheen for those words.

Gentlemen, thank you very much for being here today. We truly appreciate your efforts in some challenging regions that often are not hitting the headlines of our newspapers every day. Thanks to you, thanks for your teams.

Sergeant Major, good luck to you on retirement. I still think Nebraska or Iowa is a great place to go.

Admiral Faller, thank you for sitting down with me the other day. I really do appreciate that. We had a great discussion.

I would like to go a little more into IMET. You have heard a number of my colleagues just talking about how important it is. We had an Emerging Threats and Capabilities Subcommittee hearing just a while back, and you were able to visit with us about the importance of IMET at that particular subcommittee meeting. It has been in the press a lot lately. We all acknowledge that we can do better in vetting. But strategically can you talk to what that means for our partners strategically and what it does to assist not only those countries but the United States as well?

Admiral FALLER. The United States military education system is our strength. Like the education system in our country, our training education is sought after and valued, and it builds stronger

partners that know and trust us, and the relationships that go with that last a lifetime.

Just an example of that comes up time and time again. I have a Colombian brigadier general who is a full director of our exercise division at headquarters. He is a graduate of Leavenworth, Carlisle, the PathFinder School, the Advanced Army Armor School, and the Ranger School. He is an honor grad at Ranger School. The Colombians value that as do our partner nations.

We can use more IMET. Our budget is about $10 million a year for 28 democratic countries. Secretary of Defense Esper visited SOUTHCOM last week. A priority of his is to seek more money. He is seeking a 50 percent increase in the IMET budget. We could spend that 50 percent increase in IMET next year in our schoolhouses at the Western Hemisphere Institute for security at Fort Benning, game-changer, the Inter-American Air Force Academy in Texas. These are schoolhouses that we do not think a lot about, in addition to Carlisle and Newport, Maxwell with the Air Force and the Marine Corps university. But all these schoolhouses work together to make a difference in strengthening the hemispheric security.

Senator ERNST. Thank you.

Yes, General Townsend.

General TOWNSEND. Senator, I could not say it any better than Admiral Faller just did.

Senator ERNST. Thank you. No, I do appreciate that. Of course, our State Partnership Programs as well. Iowa is partnered with Kosovo, and I know a number of those officers that I worked with a decade ago—I have seen them rise through the ranks and we continue to stay in close contact. But those partnerships are very, very valuable. Thank you.

Admiral Faller, I want to talk a little bit about the integration of missions that we see between SOUTHCOM and NORTHCOM [U.S. Northern Command]. Obviously, there has been a lot of attention on our southern border and what has continued to happen with drug cartels. Whether it is weapons crossing the border, whether it is the drugs that Senator Shaheen just talked about, all of that is very concerning.

But what I would like to focus on in just the minute and a half that I have left is also the issue of human trafficking. Not only do we have illegal drug trade wreaking havoc across Iowa, a lot of our rural communities, but Iowa wrestles a lot with the serious problem of human trafficking. The Polaris Project in 2016 dubbed Des Moines, Iowa as one of the top 100 human trafficking sites in the United States. That is not something we are proud of.

Could you describe the resourcing and coordination challenges that exist when you are trying to address the threat between these different areas of responsibility between SOUTHCOM and NORTHCOM?

Admiral FALLER. SOUTHCOM and NORTHCOM work very closely together. General O'Shaughnessy and I traveled to Mexico City. We sat down with the head of their army and their navy to talk about how do we improve information sharing, how do we get after these ungoverned spaces that are spawning instability into North America and beyond and South America, Latin America, the

Caribbean, and how do we help the Mexicans share information with Guatemala. It was a very productive meeting. We came up with tangible steps to do that.

Then we went to Guatemala City the next day and had that same level of conversation with those nations to try to forge more coordination. At the heart of getting after these wicked problems that create instability here, including the human trafficking, is sharing intelligence, building trust, breaking down barriers, understanding and then ensuring that the right agency, law enforcement agency, other agencies, have the information they need to make an impact. That is a key element of what we are doing as we move ahead. Then we take that into exercise program which is also a similar element.

We are adequately resourced to do this, but we are carefully looking at how we can become more efficient as we move forward.

Senator ERNST. Very good. Well, please let us know if there is anything additional that we as Congress can help with.

Gentlemen, thank you very, very much for your service to our country. Thank you.

Chairman INHOFE. Senator Kaine?

Senator KAINE. Thank you, Mr. Chair, and thank you to our witnesses.

I want to add my comments of support for the families of Colonel Voss and Captain Phanouf. Colonel Voss, though a Guam resident, was based out of Joint Base Langley in Virginia. Thinking about his family and all those that you mentioned.

Admiral Faller, I want to start with you on Venezuela. There is an article that was in The Wall Street Journal a couple of days ago that I would like to put into the record.

[The information follows:]

HOW PUTIN OUTFOXED TRUMP IN VENEZUELA

THE TRUMP ADMINISTRATION UNDERESTIMATED HOW MUCH SUPPORT PRESIDENT NICOLÁS MADURO WOULD RECEIVE FROM RUSSIA AND CUBA, AS WELL AS FROM U.S. ALLIES

By Jessica Donati, Andrew Restuccia and Ian Talley
January 27, 2020

The Trump administration's bid to replace Venezuela's authoritarian leader Nicol s Maduro hit a roadblock after a meeting with Russian officials in Rome last year—and has never recovered.

U.S. envoy Elliott Abrams arrived at the Westin Excelsior hotel hoping to persuade Russia to withdraw its support for Mr. Maduro and to recognize Juan Guaidó as Venezuela's legitimate leader. Russian deputy foreign minister Sergei Ryabkov instead demanded the U.S. back down from military threats and lift the economic sanctions intended to force Mr. Maduro's hand.

In the months that followed, the U.S. campaign spiraled into a foreign-policy debacle, thwarted by familiar adversaries, Russia and Cuba, as well as allies, Turkey and India-all countries that one way or another helped Venezuela sidestep U.S. sanctions, according to current and former U.S. officials and Venezuelan opposition activists. The European Union watched from the sidelines.

The Trump administration, confident Mr. Maduro would fall, didn't foresee Russia leading the way for other countries to eclipse the sanctions. In turn, administration reluctance to impose sanctions on Russian enterprises and others kept Venezuela's oil and gold flowing to buyers.

This month, in a sign of how much the opposition is floundering, Venezuela security forces blocked Mr. Guaidó from entering the National Assembly building, where he was seeking re-election as leader. Mr. Guaidó, in a blue suit, tried and failed to scale the spiked iron fence.

Russia now handles more than two-thirds of Venezuela's crude oil, current and former administration officials said, including helping to conceal export destinations. The lifeline has helped Mr. Maduro slow the economy's free fall, consolidate his grip on power and weaken the opposition.

Almost half of the $1.5 billion in Venezuelan crude exported to India in the 9 months after the U.S. sanctions was purchased by an Indian joint venture with Russia's oil giant, Rosneft, according to a Wall Street Journal analysis of data compiled by trade database Import Genius.

The United Arab Emirates has imported around $1 billion in gold from Venezuela since gold sanctions were imposed in late 2018, according to Venezuela trade records. U.S. intelligence officials say the actual amounts are far higher, based on evidence that Venezuelan gold is leaving the country masked as originating from Colombia, Uganda and elsewhere. The exports land in Turkey, the U.A.E. and other gold-trade hubs.

The Turkish Embassy in Washington denied any oil or gold trade with Venezuela that breached U.S. sanctions. "The allegations do not reflect the facts, and they are only speculative and hearsay," a spokesman said.

The Russian Embassy in Washington declined to comment. It referred to past foreign-ministry statements criticizing the U.S. for interfering in Venezuela's affairs. Officials from India and the U.A.E. didn't respond to requests for comment.

Administration officials acknowledge President Trump's frustration and say the White House continues to press for Mr. Maduro's ouster. Mr. Trump, pointing to America's superior economy and military, suggested in a recent interview with the Journal that the U.S. had the resources to outlast Mr. Maduro. "We have a lot of options," the president said.

Yet with an election, impeachment and attention turned to the Middle East, Venezuela has for now moved to a back burner, an administration official said.

The stalemate allows Mr. Maduro to take a star turn as David to America's Goliath. He makes speeches and appearances nearly every day to show he remains comfortably in charge. He chided Mr. Abrams and other U.S. officials, saying they misled Mr. Trump that a regime change would be easy.

"They're trying to save their jobs because Trump is furious with the lies they've fed him on Venezuela," Mr. Maduro said in a recent address. "They failed, and Venezuela triumphed."

Mr. Maduro's hold on the presidency has been costly for what was once Latin America's most-prosperous economy. Hyperinflation, high infant mortality rates and a shortage of medical supplies contribute to the humanitarian crisis there. Food, electricity and water shortages have driven an exodus of 4.5 million people.

Mr. Abrams, the U.S. envoy, acknowledged this month that the yearlong U.S. effort to remove Mr. Maduro hit unexpected obstacles. "We underestimated the importance of the Cuban and Russian support for the regime," he said. "The Russian role in the economy, particularly the oil economy, is larger and larger."

Mr. Guaidó, in an interview, sounded a similar note. "I think we did underestimate things," he said. He called on countries to help block gold exports from Venezuela. "You have to try to bring pressure on those who support the regime," he said. "Sanctions today are the only real tool we have."

Mr. Guaidó's approval rating had fallen by more than 20 points to 38%, according to Venezuelan pollster Datanalisis. Allegations against opposition members, including accepting bribes from Maduro cronies, have eroded confidence.

Despite the setbacks, administration officials said there are no plans to abandon Mr. Guaidó. Vice President Mike Pence last month summoned senior administration officials to a meeting in the White House's Situation Room. U.S. officials later hosted a conference with opposition leaders to try to reinvigorate them, people familiar with the gathering said.

Mr. Guaidó's backers see Russia as their principal obstacle and want the U.S., Europe and other allies to take a harder line on sanctions loopholes.

"Russia in my view has become the most important partner of Maduro," said Carlos Vecchio, the Venezuela ambassador to the U.S. for Mr. Guaidó. "A multilateral approach on sanctions is critical."

The EU hasn't introduced oil sanctions or prevented Maduro officials from traveling to the eurozone to raise money and support.

Charles Shapiro, a former U.S. ambassador to Venezuela who is now president of the nonpartisan think tank World Affairs Council of Atlanta, said the Trump administration's predicament showed the difficulty of regime change without military force.

"And if you use military force," he said, "there are all sorts of other problems."

The U.S. has warned officials in Russia, Turkey, the U.A.E. and India about sanctions violations in private meetings, U.S. officials said, but hasn't moved to blacklist companies or individuals suspected of breaking the sanctions.

Policy options have split the administration. Some officials believe sanctions on Russia's oil firm Rosneft and other companies doing business with intermediaries could close loopholes that have allowed Mr. Maduro to survive.

Others say they could undermine U.S. interests elsewhere, including Iran. India agreed to stop importing Iranian crude as part of Washington's pressure campaign against Tehran, but it continues to import Venezuelan oil. India pays for the deliveries in gasoline, a trade that the nation says doesn't violate U.S. sanctions.

Secretary of State Mike Pompeo hasn't ruled out negotiations with Mr. Maduro.

"We will continue to tweak our policy to get the strategy just right, but we've seen no evidence that Maduro is remotely interested in having free and fair elections," Mr. Pompeo said recently about direct talks. "As far as our strategy, the tack we'll take, I'm sure that will change over time."

Long road

Mr. Guaidó, 36 years old, was virtually unknown in Mr. Trump's circles before he came to Washington with a delegation in December 2018. Administration officials and opposition leaders made a plan to put Mr. Guaidó in charge, and Mr. Pence was given a central role.

Administration officials targeted Venezuela, in part to punish Cuba and win support among Cuban Americans, a potent Republican voting bloc in Florida. Republican Sen. Marco Rubio of Florida and Mauricio Claver Carone, the National Security Council's head for Latin American affairs, had roles in forging Venezuela policy.

Cuba provides Mr. Maduro with intelligence and security services, helping to minimize defections in his government, U.S. officials said.

When Mr. Guaidó declared himself interim president in a widely watched oath of office ceremony a year ago, the U.S. swiftly recognized him as Venezuela's legitimate leader. Canada, Brazil, Argentina, Colombia, Chile, Peru and other South American countries followed. They supported Mr. Guaidó on the grounds that Mr. Maduro's election to a second six-year term was a sham.

Two days after Mr. Guaidó's oath, Mr. Abrams was appointed as the top envoy to Venezuela. He was given one job: Remove Nicol s Maduro.

Mr. Abrams rattled some at the State Department, in part for his involvement in the Iran-Contra affair, a covert operation in the mid-1980s to sell weapons to Iran and use the proceeds to arm rebels in Nicaragua.

Some career State Department staff feared that any heavy-handed U.S. intervention would derail Mr. Guaidó's popular support, while political appointees questioned Mr. Abrams's support of Mr. Trump.

In March, Mr. Abrams met with the Russian deputy foreign minister in Rome. After Russia refused to back Mr. Guaidó, the U.S. envoy promised more sanctions and possible military action. After this article was published, Mr. Abrams said: "I and all the others in the U.S. party had very low expectations of what could come from the meeting."

The realization that regime change wouldn't be easy came in April. The opposition planned to have Venezuela's top court recognize the National Assembly, headed by Mr. Guaidó, as the legitimate representative of the Venezuelan people. That would give the country's armed forces legal grounds to abandon Mr. Maduro.

Guaidó supporters expected high-ranking Maduro officials to announce they were switching sides. The plan flopped, and White House frustrations erupted.

In May, secret talks brokered by Norway opened in Barbados between Mr. Maduro and the opposition, which called for fair elections. In August, Mr. Maduro quit the talks.

Looking back, the U.S. campaign originated with unrealistic expectations, current and former U.S. officials and Venezuelan opposition activists said.

"There was a firm belief, and briefed to the president, that all that had to be done was to recognize Guaidó, and Maduro would fall," said Fernando Cutz, a former White House National Security Council official during the Trump and Obama administrations who was involved in U.S.-Venezuela policy.

The administration's call for the Venezuelan military to defect and support Mr. Guaidó was wishful thinking, said Michael Shifter, president of the Inter-American Dialogue, a nonpartisan think tank: "The last thing the military are going to do is follow orders from a foreign power, especially the U.S."

Mr. Trump complained to aides and allies that he was led to believe Mr. Maduro would be removed quickly, people familiar with the matter said.

The president directed much of his anger at national security adviser John Bolton, those people said, adding that those frustrations contributed to Mr. Bolton's ouster in September.

Helping hand

With Russia's help, Venezuelan oil output could return to 1 million barrels a day from a low of 650,000 to 700,000 barrels, Rapidan Energy Group, a geopolitical risk consulting firm, said in December. Rosneft is helping Petrǫleos de Venezuela SA, the state oil company, pay for overdue maintenance and the hiring of foreign experts, according to the group.

Russia has provided Venezuela more than $300 million in currency over the past 18 months-dollars and euros that have become more scarce under the sanctions, according to the Journal analysis of data from Import Genius.

Mr. Abrams said he still believed sanctions will work. "The situation of the regime is untenable and many people in the regime clearly know it,' he said. "They would not keep sending their money, their wives, their children, and their mistresses out of the country if they thought it was stabilizing."

Cynthia Arnson, director of the Latin American program at the Woodrow Wilson International Center for Scholars, said the standoff this month at the National Assembly underscored the opposition's weakened state.

"At the same time," she said, "the [Maduro] government has no real options for ending the economic, humanitarian and legitimacy crises that it faces."

The issue surfaced at a Trump re-election event this month in Florida, a battleground state with the largest population of Venezuelans in the U.S. Some of Mr. Trump's supporters in Florida have voiced frustration that Mr. Maduro remained in power.

Commerce Secretary Wilbur Ross, speaking informally to a small group at the event, said the administration had expected the leadership change to happen faster, and that some officials sought more aggressive efforts, according to a person familiar with conversation.

A spokesman for Mr. Ross declined to comment on the meeting but said the administration is looking at all options. "The U.S. is 100% behind Guaidó," Mr. Ross said Thursday in a TV interview.

—José de Córdoba, Alex Leary, Kejal Vyas and Vivian Salama contributed to this article.

Senator KAINE. The title of it is unnecessarily provocative. The title is "How Putin Outfoxed Trump in Venezuela." I do not think the title is a fair characterization. I think the article, though, is very, very good.

Basically if I were going to title the article, I would title it how the United States underestimated the difficulty of what we were trying to do in Venezuela. I think the U.S. has done a number of good things. I think the Trump administration has. I could pick a few faults, but generally done good. But the core of the article is how we really underestimated how hard it would be.

I just remember this last year when we were talking about it here and in the Foreign Relations Committee, there were sort of some real blue skies scenarios that were being painted by the administration about how Maduro is about to collapse. I went to Colombia and visited in Colombia, then went to the border in Cucuta in March, and everything I was hearing from the Colombians and everybody down there is this is not easy. It is going to be really, really hard. They were exactly right about how difficult it was going to be. Here on Capitol Hill we were getting blue skies scenarios from the administration about the imminent collapse of the Maduro Government. We just got it wrong. On the intel side, we just got it wrong.

One of the things that is galling in the article is one of the reasons it is so hard is not just our adversaries. Venezuela is propped up by Iran and Cuba and China and Russia. The UAE [United

Arab Emirates], Turkey, India, allies of ours have helped them evade United States sanctions and have helped prop them up, and they are one of the reasons why the Maduro Government has had some lasting power.

I guess I just want to caution all of us on matters like this. These are tough situations, and we can do everything right and still find it very hard to accomplish what we want. That is not our fault. But we need to be very wary of blue skies scenarios and being told we will support this person and things are likely to work out our way. We are in for the long haul in these situations.

I will tell, Admiral Faller, I would love to talk to you further. We have done European Reassurance Initiatives and Asian Reassurance Initiatives. It might be time to do an Americas Reassurance Initiative. I do not really like the title because "reassurance" already sounds defensive like no, no, no, we are really interested in you. I do not know that we have to be defensive about it. But we need to have a comprehensive, whole-of-government diplomacy and military and economic trade focus on the Americas because while we are focusing elsewhere, I know where our adversaries are focused. They are focusing on our own back yard.

General Townsend, I want to ask you a question. There was a recent study of some challenges within the special operations community, and while it was special operations focused, a number of the areas of the study dealt with items in AFRICOM. There is a comprehensive review that SOCOM [U.S. Special Operations Command] put out last week looking at a variety of cultural and ethical challenges in the special operations forces, including some that led to scandals. Many took place in AFRICOM.

One of the themes was extremely high operational tempos caused problems. Here was the finding, "a trend of disaggregation at the individual and small team levels risks employing forces where operational requirements misalign with the four gen validation standards." I have been on the committee for 7 years. I think what that means is we had forces deployed in teams and sizes that lacked the oversight or the ability to do the missions they were assigned.

Now, I think the recommendations are largely for SOCOM, but because SOCOM operates within combatant commands, what responsibility do you think the COCOMs have in making sure that the forces provided to you are appropriately resourced and led?

General TOWNSEND. Thanks, Senator.

I am familiar with the study, and I am familiar with the conclusions of it. I agree with what that study talks about. As you are aware, most of the forces operating on the African continent these days are special operating forces (SOF), not exclusively but a lot of them.

This phenomenon you mentioned correctly does not just apply to special operating forces. Over the course of this war, we have disaggregated formations time and time again and separated small teams from their higher echelons of command and leadership.

Senator KAINE. Some of the recommendations here or findings are a little bit like the study about the *McCain* and *Fitzgerald* instances in the Pacific. I mean, there are some similar challenges

about high OPSTEMPO [operations tempo] and other things leading to the problems.

General TOWNSEND. Right. So I think at the COCOM level, we absolutely need to do whatever we can to keep teams together and not disaggregate them. I am a firm believer in this. I have been in a command that has had my team disaggregated and scattered all over. So I am believer in keeping team integrity in every task that we can.

Also, part of our blank slate review process that we are undergoing with the Department of Defense is to look at how we can reduce the operational tempo, particularly of SOF forces, but all forces, reduce their operational tempo so it is not just about trying to redirect resources but it is to return some resources to home station. The SOF operational tempo is still stretched. Even though it is now reaching a dwell of about 1 year deployed for 2 years at home, the goal is 1 to 3, and there is still some work to be done there.

Senator KAINE. Thank you very much.

Thanks, Mr. Chair.

Chairman INHOFE. Senator McSally?

Senator MCSALLY. Thank you, Mr. Chairman.

General Townsend, I represent Arizona, and on January 5 Dustin Harrison from Tucson was killed by al Shabaab terrorists at Manda Bay in Kenya. His wife Hope and his 2-year-old daughter Heaven are back home in Tucson grieving the loss of her husband and father.

Now, I was a part of the team to stand up AFRICOM as my last assignment in the military, one of the more challenging assignments I had. So I am aware of the challenges you have on the continent.

But some articles about the situation there was that it was a woefully undefended perimeter or surprisingly sparse security, given the level of assets, air assets and others, that you have there.

I know an investigation is ongoing, and I do not want to put any more of our service men and women into harm's way. But what can you share about what is happening today to make sure an attack like that is not happening or the risk is not going to happen now and in the future? What can I share with Heaven and Hope to make sure that others are not going to be in a similar risk?

General TOWNSEND. Thanks, Senator.

As I mentioned in my opening statement, I also offer our condolences. Those family members are in our thoughts and prayers for our fallen comrades.

Also, thank you for pointing out there is an investigation going on, so I do not want to get in front of that. You know, you have worn a uniform so you know that frequently what we think we know at the start of an event is not what actually we discover after we have thoroughly investigated it.

But there are some early conclusions, and I think it is self-obvious we were not as prepared there in Manda Bay as we needed to be. Al Shabaab managed to penetrate onto that airfield. A lot of people do not know but the base where our troops live is not where the airfield is. But they were able to get access to that airfield, kill three Americans, and destroy six aircraft there. So we were not as

prepared, and we are digging into that to find out why that is the case.

But since that event, there are about 120 infantrymen there on the ground now who are securing that place, and they have been working hard since January 6 to put in the appropriate level of defenses. I am confident that by the time they are done, Manda Bay will be much more properly defended.

We are not just stopping there, though. We are looking across the continent because I think that we viewed, and the Kenyans viewed, Manda Bay as a safe area. The Kenyans have family housing there for their military. It is a resort area. So al Shabaab has shown their reach and the danger that they pose, and I think we need to take that seriously, and so I am looking with a clear eye at every location in Africa now.

Senator MCSALLY. Great. Thank you.

I was at J–33 in that assignment running our counterterrorism operations. One of the challenges we had at the time—this was back in 2007 to 2010—we saw al Shabaab growing. We saw the training camps. We were watching hundreds, thousands of fighters being trained. At the time, they were a lawful legitimate target, but the Obama administration felt like they were not a real problem or risk. So we could not take them out.

Last year, I think there were 67 strikes conducted in Somalia. Can you share what the impact of those strikes are, and is it whack-a-mole or what is the strategy here going forward in order to address this growing terrorist threat in East Africa?

General TOWNSEND. There is an international effort there that supports the Somali Government.

Senator MCSALLY. I know. We have been talking about that for a very long time.

General TOWNSEND. Yes, and the Somali national army, and so our role is in support of that. The two major tasks that we are doing is helping to train a specific part of the Somali national army, the Danab or special light infantry units, and we are also doing our counterterrorism strikes. They are meant to help the international effort and the Somali effort, but they are also meant to protect America.

I do not believe that it is whack-a-mole. What we do is we keep an eye on al Shabaab every day, and we are looking for ways to reduce their capacity wherever we can. That effort to disrupt and degrade al Shabaab and their leadership and their mid-level leadership and higher-level leadership is a critical part of what we are doing.

Senator MCSALLY. Great. Thanks.

Admiral Faller, I am out of time, but I will submit some questions for the record specifically about the drug flow coming up from your AOR to our country through my State, Arizona, and the latest tactics that the cartels are using and how we are countering them. But I will have to submit those for the record. Thanks.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator King?

Senator KING. Thank you, Mr. Chairman.

I want to talk in a few minutes about China and Russia and their activities both in Latin America and in Africa.

But, Admiral Faller, since we have been sitting here, eight Americans have died of drug overdoses in the last hour, 67,000 people a year, one person a day in Maine.

What is going on with China and Russia are threats. They are indirect threats. They are important. But we are talking about Americans dying, and you and I have talked about this in the past. I have heard from you and from other national security officials that we are picking up—we are interdicting about 25 percent of the drug shipments through the ocean to North America that we know of. Twenty-five percent of what we know of. To me, we are talking about allocating resources around the world for all kinds of threats. This is a direct threat killing Americans that we do not have enough ships. I do not get it. When do we get to interdicting the ships that we know are carrying drugs into this country to kill our people?

Admiral FALLER. It is a national security crisis.

Senator KING. Absolutely.

Admiral FALLER. It is actually worse statistics than you mentioned. We detect 25 percent. We are only interdicting 9 percent. To interdict, we need greater partner capacity, as I mentioned in the answer to Senator Shaheen. We also need assets. At the end of the day, you have got to be on the field to compete. When the playing field is twice the size——

Senator KING. Well, who do we need to talk to to get those assets? The Secretary of Defense, the President, the Vice President, who? Where do we go? It is infuriating that we know what is coming. We know it out there, and the phrase I got was we have far more targets than we can action. That is a euphemism for we are woefully falling down on this responsibility.

Admiral FALLER. The Coast Guard stepped up in a big way. Our U.S. Navy used to have readiness challenges that has them stretched globally, and that has impacted their force allocation to us.

Senator KING. Is it people or ships? Do we just need more ships?

Admiral FALLER. It is not just ships, Senator. We need the intelligence, so we need the intelligence, surveillance, reconnaissance assets (ISR). We have about 20 percent of what our need is there, and then that then turns into the ability to interdict. We also need our steady funding and our security cooperation so we can help our partner nations help themselves. So it is pulling this together in a full court press beyond ships that we can work together with partners and in our interagency and get the "W" back in front of whole-of-government, Senator.

Senator KING. I appreciate that, and I know that you are working on this, but I just hope you will keep pressing. If you have to say there is this really obnoxious Senator that is on my back and I have got to do something, that is fine. I can fulfill that responsibility quite adequately.

Let us talk about China for a minute. By the way, these charts from both of you are very helpful. It really graphically indicates what is going on.

It seems to me China is following sort of a two-track strategy in both Africa and South America. One is what I call debt imperialism. They are getting these small countries in debt to them,

and then they have got their hooks into them. General, is that part of what you are seeing happening in Africa?

General TOWNSEND. That is exactly what we are seeing. We are also seeing a new, more sophisticated development in that. So the debt trap diplomacy has now become known on the continent. Most African leaders are wise to it. Actually I would commend our State Department for helping get African leaders more savvy about what the Chinese are doing with some of these debt trap loans. The Chinese are adapting, though, and evolving their presentation, and they are becoming more sophisticated about it. So I am a little bit worried because they are getting smarter about it.

Senator KING. Well, that is a concern. But the other thing is sort of more direct. I think, Admiral Faller, you used the word positional advantage. Just looking at your chart, Jamaica, El Salvador, Ecuador, Chile, Belize ports. Ports. I mean, that is a strategic advantage. Whatever happened to the Monroe Doctrine? We are allowing an adversary—I will not say an enemy but an adversary—to establish significant positional advantage within our hemisphere. Admiral?

Admiral FALLER. Senator, it is not just the ports. It is IT infrastructure. It is space stations. It is cyber. It is safe cities, as General Townsend mentioned. China has figured out that the nations in Latin America and the Caribbean are cash strapped, so instead of trying to do arms sales, they are coming in with significant gifts. I could cite $17 million in one country in South America, $20 million in a Caribbean nation. These are 1-year gifts of trucks and boats and IT infrastructure, well beyond uniforms and PME [professional military education]. That is alarming to me as they build not just debt but dependency, and we are trying to build trust and teams.

Senator KING. Maybe our motto should be beware of Chinese bearing gifts and telecommunications equipment.

Thank you very much, gentlemen. I appreciate your testimony.

Chairman INHOFE. Senator Cramer?

Senator CRAMER. Thank you, Mr. Chairman.

Thank both of you, both for your service and you being here today.

I am going to ask each of you to elaborate on the topic that Admiral Faller just brought up in response to Senator King's first question because each of you and/or your predecessors have commented of the challenge, given the mass geography that you are responsible for, each of you, the challenges in ISR, Admiral, that you just raised. Are you getting the assets that you have asked for? Are you getting the assets you need? If not, why not, if you know?

Then to putting a finer point perhaps or an additional point on that broader discussion that I want you to have with me. On December 20, with the signing of the National Defense Authorization Act (NDAA), of course, we began the process of standing up the sixth military branch in Space Force. Whether in ISR or whatever, but Space Force seems to me to fit right into this. What I am wondering about is—I know it is early, but time is short—have you been invited into the discussion or inserted yourself into the discussion of how to best man, train, and equip a Space Force to assist you? Maybe you can elaborate a little bit on your partner countries

and what role, if any, they could play. I would ask, Admiral, to go first and then General Townsend.

Admiral FALLER. Intelligence, surveillance, and reconnaissance is a key part of our intelligence picture, and there is a global demand and we are short in this hemisphere. I mentioned we were meeting 20 percent of our goal. A good chunk of that 20 percent is using the Department of Homeland Security Customs and Border Protection (CBP) assets. So it is a team effort. The DOD portion of that is probably closer to about 8 percent, and so it is key. We recognize the global challenges, and we do the best we can with what we have. I think there are some advances in machine learning and artificial intelligence that we can use and should pursue, and we are going to work that.

With respect to Space Force, we have excellent coordination with General Raymond and his team. It is a key interest like cyber in every nation that we deal with. Fundamental to this is information sharing into the space realm and space agreements that we are working with nations like Brazil, Chile, and other countries that will help counter China's efforts in that realm and continue to ensure that we have positional advantage. We cannot work fast enough in that arena, Senator, but we are working on it as hard as we can.

Senator CRAMER. Thank you.

General TOWNSEND. Senator, on your question about resources, I would say that my command, with one exception, is pretty adequately resourced for the tasks we are given to do today. As small as those resources are, I think it is adequate with the exception of ISR that you mentioned, and I know that every combatant commander that sits here in front of you will say the exact same thing. Admiral Faller briefed his level of resourcing. We are at about 25 percent of our known validated requirement for ISR.

You mentioned the Space Force. Interestingly enough, I just met with General Raymond yesterday. We were discussing about the development of his new force, and we are in constant contact with Space Force and Space Command. They have recently deployed some folks to our headquarters to assist us with space.

Everything we do, of course, on the continent has ties to space, and not only on our side but on our adversaries' side as well. I recently got a briefing, and the Chinese have somewhere between 13 and 16 space facilities on the African continent and the Russians have 5 or 6. So they are also investing heavily in space infrastructure on the African continent.

Senator CRAMER. Thank you both, and with that, I yield my time.

Chairman INHOFE. Senator Peters?

Senator PETERS. Thank you, Mr. Chairman.

Gentlemen, thank you for your ongoing service as well.

You both highlighted in your written testimony the National Guard State Partnership Program and how that works to ensure bonds both at junior levels and senior levels with militaries in your region. In the last 4 years, the Michigan National Guard has completed 19 events with Liberia, one of their State Partnership counterparts, and they have also planned another 20 events coming up in this next fiscal year.

I had the opportunity to see some of that firsthand in 2017 when I was in Liberia, and I know that the partnership certainly helps build relationships in West Africa as well as other places around the world.

So my question to both of you is, how are you leveraging State Partnership Programs in your area of responsibility? When I look at the amount of money we are spending, roughly $3 million in each of your areas, maybe you can give us a sense of what you are doing. Is that adequate resourcing? If not, what would be adequate and what would you do with it? General Townsend?

General TOWNSEND. Thanks, Senator.

The State Partnership Program is a fantastic resource for us, and I did not have a good appreciation for it until I took this job. One of the first conferences I went to, all of the—at the time—14 partnerships were present with their National Guard partners from the United States. It is very responsive. It is very flexible. What I like about it is the States and the countries do a lot of things sort of below the radar, and it is a constant kind of presence.

We now have 15 partnerships in Africa. We have just added Rwanda and Nebraska. That is the new one, and the next one in the queue we are working up towards is Ethiopia. These countries want these partnerships. They talk to their counterparts on the continent that have them, and they realize the value of it. I cannot say enough good about the State Partnership Program.

Senator PETERS. Are they resourced enough?

General TOWNSEND. You mentioned we have $2.9 million, about $3 million that you mentioned. I think they are probably adequate right now. What I have not done is I have not done an analysis to see if we add Ethiopia, do we get more money, or is that another mouth to feed from the same $2.9 million. I have to look into that. I do not know the answer to that, and I will get back to you on that.

Senator PETERS. Great. Thank you.

[The information referred to follows:]

General TOWNSEND. We anticipate receiving additional resources from the National Guard Bureau (NGB), but understand current appropriation for State Partnership Program (SPP) is relatively flat. In fiscal year 2019 AFRICOM received about $2.9 million in SPP funding which allowed us to support 196 engagements of 250 planned. I support appropriating more resources to the NGB (title 10, USC section 341) to fund the valuable return on investment we receive through SPP.

Admiral Faller?

Admiral FALLER. Similar extremely positive experience. It is a habitual relationship that aligns itself very well, and the year and after year builds friendships. The training that is provided, the equipment. Most of our exercise support for our major exercises comes from State Partnerships, and that is something that we depend on as our force provider. So it is a game-changer for us. We added Brazil and New York this year, and it was a big deal for the Brazilians and the New York National Guard.

In terms of the funding levels, we are seeking to get guard partner reps established in every embassy as part of our embassy country teams. We are working through the funding with respect to that. We think there is an opportunity for some additional State partners within our headquarters to augment our force and to in-

crease the understanding of how we can leverage partner expertise. Cyber is a particular area where some States are excellent in cyber. How do we better leverage that? I have to get back to you on a level of funding and I will take that for the record.

But the authorities piece is also an area too. So we can use the flexible authorities.

One quick story. Recently in Colombia and we have Oklahoma. It is not a State partner of Colombia, but the Oklahoma Guard has surged ISR support for 6 months to help augment Colombia in getting after FARC [Revolutionary Armed Forces of Colombia] dissidents, the ELN [National Liberation Army], and narcotraffickers. Some tremendous successes with their MC–12's with just 30 guardsmen and one contractor support. Lost cost, high payoff.

Senator PETERS. Thank you.

I have a very limited time. So it will be just a quick answer from each of you.

We understand that climate change will have a significant impact on security issues across the planet. The Army War College just recently put out a report suggesting the challenges of climate change. In the brief time we have left, is there one specific concern related to climate change in your area that you think we should be focusing on. General, do you want to start?

General TOWNSEND. Yes. I think probably the desertification that we see expanding south from the Sahara into the Sahel and water management I think. Water is going to be huge point of friction on the African continent in the future.

Admiral FALLER. Recently in Central America—and we look at the impact on changes in weather to the coffee and the white corn and things like that. So we are really focused on how do we work with whole-of-government to support that stability necessary so people can stay home and find jobs.

Senator PETERS. Thank you.

Chairman INHOFE. Senator Tillis?

Senator TILLIS. Thank you, Mr. Chairman.

Thank you, gentlemen, for being here.

I was struck by some of your comments. I think even Senator King's comments led me to kind of aggregate. You accomplish so much with few people and few dollars. Admiral Faller, you said we do the best we can with what we have. I have heard "adequate" used several times and "probably adequate" used one time.

So when we have this discussion about why are you not doing more, I always wonder whether or not you all should just put a mirror down there and say because you are not giving us the resources to say "more than adequate," thinking strategically, doing more, anticipating threats.

To a large extent, the graphics were great, but what we are trying to do is catch up with a pace in China and against China and in Africa and South America where it looks like we are losing. The gap is narrowing and some points we are trying to catch up. Is that an adequate statement?

Admiral FALLER. We see our competitive advantage narrowing in this hemisphere, and we have got to maintain that competitive advantage and across all the elements of national power focused in the military. So what does it take to do that? Certainly more effi-

cient use of resources we have, leveraging other things. I mentioned artificial intelligence a couple times. But at the end of the day, any athletic competition I have ever been in or anything I have ever done takes a person to compete. So zero in any math equation is either zero or unsolvable. We have to be present to make a difference.

Senator TILLIS. General Townsend?

General TOWNSEND. Senator, I think that our competitive advantage is not eroding. In some cases, they have an advantage. There are some areas we are just not going to out-compete China in. One example is spending money in large amounts on the African continent to build infrastructure. We are not going to build bridges and dams and railroads and stadiums and palaces like they are doing. So we have to rely on our strengths, and I think our interagency and our military have a lot of those strengths. So I think that we also do not have to compete everywhere in Africa. We have to pick and choose where we are going to out-compete.

Senator TILLIS. If I have time, I am going to ask a little bit about that.

We all have to take a look at what is happening around the globe. When all of a sudden we see the threat of Iran in the Middle East, we have to redeploy assets there. It has got to come from somewhere.

ISR is something that is desperately needed across the board. I have had several discussions with your predecessors, Admiral, and they say the thing that is most frustrating to them is they have enough intelligence to know there is a lot of stuff moving across the border killing American citizens and there is not a damn thing they can do about it. You just do not have the resources on the water, on the ground to do it.

I really do believe if you take a look at the number of people who are dying from narcoterrorism, it is remarkable to me, the hundreds of people who die every day in this country. If that was a terrorist organization doing that anywhere in the world, we would stand up a capability and rain down hell on them. But it is happening every single day.

I want to ask you a question because I will run out of time. As you are looking north of your area of responsibility and then to the southern border of Mexico, how much better are we getting at securing that border so you are limiting the pathways that these drugs, guns, and victims of human trafficking? Are we starting to tighten and make any progress there within your area of responsibility? Any comments you can give on Mexico's contribution will be appreciated.

Admiral FALLER. We certainly look at the security as a required zone defense. So border security is almost like a goal line stand. You need your linebackers and your halfbacks as you move down. I think the pressure has worked. We have seen some positive indication.

But clearly, given the migrant caravans that have recently come up, the connection between those caravans and transnational criminal organizations and narcotrafficking and the political instability. More needs to be done, and it has got to be those nations stepping up. The partners have to step up and our whole-of-government ef-

forts sustained in a way. To get after sustainable security, it takes time to get some of these efforts up. We saw Ambassador Jean E. Manes make progress in El Salvador, but it was sustained, whole-of-government efforts.

Senator TILLIS. Finally, General Townsend, you wake up in the morning. What are the top three things that worry you most about your job?

General TOWNSEND. I think the first one is another event like a Manda Bay, an attack where we are just not looking for it.

Then I think what al Shabaab might do next that we are not tracking on out of East Africa.

Then just making sure I can do right by the soldiers, sailors, airmen, and marines of AFRICOM.

Chairman INHOFE. Senator Manchin?

Senator MANCHIN. Thank you, Mr. Chairman.

Thank you all especially for your service, but thanks for being here to bring us up to speed.

Admiral Faller, I want to talk about Guantanamo just a little bit because we talked about the efficiencies and the things that you are trying to do there to get more accountability. My goodness, when it is costing $13 million per inmate—$13 million—what type of efficiencies do you think you can do to cut into that? How can we better operate? Do you not think it is time we look at repositioning these prisoners that would be more cost effective to the American taxpayers? West Virginians could do a lot with that $13 million. I can assure you on that one. So any thoughts you might have on Guantanamo, what direction we should go, policy for the long term, and then short-term efficiencies?

Admiral FALLER. Senator, the safe, humane, legal treatment of those detainees is a top mission of ours. We have a significant guard force aligned to that mission set, some 1,800. As part of this combatant command zero slate review, we are going to take a hard look at if there is a better way, a more efficient way to conduct that mission set. That review is ongoing. I will report out to the Secretary of Defense soon.

Senator MANCHIN. Let me just ask this question, and I am sorry to interrupt you, sir.

Have you all looked to see if we are capable and able? I understand we have quite a few detainees in the United States prisons in some of our hardened facilities that would be more effective and efficient. The geopolitical ramifications of this thing—we just got to get more cost effective here and do the common sense thing. I cannot explain this back home.

Admiral FALLER. As we look at our review, we are looking at different models on what we can learn from. As to whether we would move that detention facility, that is a policy decision——

Senator MANCHIN. I understand. I understand that.

Admiral FALLER. I just want to note, Senator, that we remind our team every day that the USS *Cole,* 9/11, and I know we are all deeply committed to ensuring that we do right by that. The United States needs the capability to deal with——

Senator MANCHIN. How many new prisoners have you brought into Guantanamo this last year? How many new prisoners have you brought to Guantanamo?

Admiral FALLER. Sir, we have currently 40 and that number has remained steady.

Senator MANCHIN. So we have not put any more there.

Admiral FALLER. We are not increasing it.

Senator MANCHIN. We are not increasing at all. Where are we putting them, our combatants? When we capture these combatants, where do we put them?

Admiral FALLER. The detainees that are being taken off the battlefield in other areas are being dealt with by separate different——

Senator MANCHIN. It is not $13 million a person you do not think. Do you?

Admiral FALLER. I do not know the cost in other areas, sir.

Senator MANCHIN. I am sorry, sir, on that.

General Townsend, if I can go to you. Just give me a comparison of basically of where we are. Troop-wise I think we are up to 80,000 in the Middle East. Deployment—we are up to 80,000.

General TOWNSEND. I do not know the exact number.

Senator MANCHIN. Okay. In AFRICOM, where are you in AFRICOM?

General TOWNSEND. Today on the continent we have about 5,100 U.S. servicemembers and about 1,000 DOD civilians and contractors.

Senator MANCHIN. We can say it is quite disproportionate. Right? There is a difference. Extreme organizations, Boko Haram, al Shabaab, al Qaeda, and many more. Basically the amount of manpower you have dealing with the influence of China now, you have got your hands full there and it looks like we are spread pretty darned thin not being able to stop this in Africa with what we see coming because it is not getting any less intense there and less violent and less threat to the United States of America, but most of everything we have is going towards the Middle East and also on fighting the drugs that are coming to this country, money going for different things besides the front line of defense so far as stopping the drugs coming into our country. Are you being hampered by the amount of resources you are able to call on?

General TOWNSEND. Senator, as I mentioned previously, I think that the tasks we are given today—we are adequately resourced with the exception of ISR. I think that the defense-wide review that all of the combatant commands are participating——

Senator MANCHIN. So in order to do the mission, you think at 5,100-plus you are in good shape.

General TOWNSEND. To do the tasks that we are assigned today. That is right, and I think the defense-wide review will potentially decrease the tasks that we have to do.

Senator MANCHIN. You think the tasks will change? It is very mobile what is happening——

General TOWNSEND. The tasks we are assigned will change.

Senator MANCHIN. Yes, and by that, it could change as far as the demand on resources. Right? Thank you, sir.

Chairman INHOFE. Senator Perdue?

Senator PERDUE. Thank you, Mr. Chairman.

Thank you both for your career and for your willingness to hang in there and take up these responsibilities.

As I see it, the world right now has four naval pinch points. You guys own two of them, the Suez Canal and Panama Canal. The Malaccan Strait I would argue is one and now the South China Sea.

Let us talk about the Suez for just a minute. If you look at what Russia has done in Syria with Latakia and Tortus and now what they are talking about in Berbera down near Djibouti where we have a base and now the Chinese have a base there, it is pretty obvious that Russia is increasing their operational tempo in Africa.

General, tell me a little bit because one of the things I worry about most—I have been listening to this stuff for a while here, and the thing that I see beginning to develop is the opportunity that Russia and China join together in an area where we are under-deployed and it creates a real strategic challenge for us. Russia and China are members of the Shanghai Cooperative Organization, along with India and Pakistan, four nuclear powers. But Africa is one of the few places where I can see, other than the Arctic, that they have the potential to really come together and create a real headache for us.

Would you share what Russia is doing in your AOR and how we should be thinking about it as we look toward the NDAA this next year?

General TOWNSEND. Yes, Senator.

So we provided some handouts there——

Senator PERDUE. They are very helpful.

General TOWNSEND.—to kind of lay out graphically what Russia is doing, and you can see it is quite a bit.

Senator PERDUE. Yes, sir. Dramatically increased would you not say over the last 3 years?

General TOWNSEND. They have.

I think Russia's goals are predominantly for their benefit for resource extraction. They also want to position particularly in northern Africa, particularly in Libya. They want a position on NATO's southern flank there. They also I think want to thwart what we are trying to do and present themselves as a great power alternative to the United States.

What I see them doing with China, though, we are not really seeing a great level of cooperation with one recent exception. There was an exercise a couple of months ago in South Africa called Exercise Mosi where the South Africans, the Russians, and Chinese navies conducted an exercise on the very southern tip of the continent. That is the first visible sign of cooperation that we have seen. We are not seeing that in a great measure, but they are all over the continent and they are doing mostly resource extraction.

Senator PERDUE. One of the things we do not talk about here—and it is a follow-up real quick, and I need to get to Admiral Faller about South America with a couple of questions. But what are our NATO allies doing in Africa to help us stand up to the requirements that we are trying to fulfill in your AOR?

General TOWNSEND. Senator, as you are aware, NATO itself is not greatly active, but——

Senator PERDUE. I should have said the members of NATO.

General TOWNSEND. Members of NATO are very involved. In fact, in West Africa, we are a tertiary supporter of the French, but-

tressed by several other European countries there. In East Africa in Somalia, it is the European Union that is keeping the AMISOM [African Union Mission to Somalia] forces in the field by paying for their sustainment in the field. So the European partners are doing quite a bit. I believe there is room for them to do more, and I think our government has recently called on the Europeans to do more. So has France by the way.

Senator PERDUE. I am really concerned. Your charts are great. $145 billion already invested in Africa and a plan to get to $250 billion in South America within the next 5 years by China alone. I think these numbers are correct. We put in $8 billion of aid into something called Power Africa, and I am making a point with this. We attracted something like $46 billion of foreign direct investment to back that up. So we have employed over $50 billion with only $8 billion of our seed money in there. Leverage is a big part of this with our allies, and we have got to continue to do that, and you guys are right in the middle of that.

Admiral, with regard to South America, 56 ports they have already invested in. I am worried about two things right now directly. In Argentina, the Georgia National Guard is a partner down there, and you in our meeting yesterday talked about this a little bit. But tell us a little bit about China's PLA [People's Liberation Army] managing that space station in Argentina, and then secondarily, what does the up-tempo mean in the Panama Canal Zone that China has really undertaken just in the last—since you have taken over in that AOR?

Admiral FALLER. As you state, beyond economic, China seeks to take their soft aims and turn them into hard power targets, and it is in space. It is in cyber. It is in port access. It is in access—generally, they signed into the previous Panama administration some 40 agreements for access, influence, including IT in Panama. Fortunately for us, the current team in Panama, the administration there, has changed policy and has recognized the threat that that could have on their sovereignty.

We look up into the Caribbean. In one Caribbean nation, China has built a road across the country, 1,200 acres of access granted for Chinese use. The equipment was brought in under dubious circumstances. They parked it right next to the embassy so we could be reminded of that, and now they get to collect the tolls for 50 years on that road.

Those are just three quick examples of what we see with Chinese influence.

I pivot and look into Venezuela where China, Russia, Cuba working alongside each other to block the forces and voices of democracy particularly in cyber.

Senator PERDUE. Thank you, Mr. Chairman.

Chairman INHOFE. Senator Jones?

Senator JONES. Thank you, Mr. Chairman.

Thank you, General and Admiral, for being here. I apologize for being late. Demands on our time these days are a little bit overwhelming.

General Townsend, first let me just say that I join my colleagues in sending condolences to you and the families of those killed and injured in the attack on Manda Bay. I especially want to point out

and send our condolences to the family of Army Specialist Mitch Mayfield who was a valued soldier in the 1st battalion of the 58th Aviation Regiment out of Fort Rucker, Alabama. It is an amazing group down there, and he was certainly part of that amazing group.

Admiral, I want to go back to something that I think you may have touched on briefly with Senator Shaheen concerning the USS *Detroit* and the littoral combat ships (LCSs) that are being used around. That ship was not made in Alabama, but we have a lot of the LCSs made down at Austal down in Mobile that are employed around the world. I would like, if you could, tell me a little bit more about how the LCS has been helpful in the operations in your area. Is it possible to use or would you want additional LCSs or other vessels like the EPF [Expeditionary Fast Transport] to help in your area of expertise?

Admiral FALLER. So our counternarcotics mission demands platforms for end game work and with law enforcement to take both the detainees we gain intel from and the drugs off the streets here in the United States *Detroit* has had success in that endeavor. They have an unmanned aerial vehicle Fire Scout embarked along with a helicopter. That is a great force package.

We have also used the *Detroit* in a freedom of navigation operation off the coast of Venezuela in waters that Venezuela claims that international law does not recognize. *Detroit* did a magnificent job sailing close to the coast of Venezuela and providing that intelligence and reporting back to us.

So the ships are multi-mission. The ships are capable. Unfortunately, we had a rocky start. I think the kinks are being worked out. The *Detroit's* performance since November has been above standards in all manners of reliability, and we welcome the deployment of the next littoral combat ship to the region. We could use more of these ships. They are well suited for the kind of missions in this hemisphere.

Senator JONES. Great. Well, thank you very much.

As a former U.S. attorney, I am acutely aware of the drug problem that we have in this country and the importation of drugs, and I would like to do all we can. I have been concerned about the administration's diverting of some resources to what I think would be more appropriate for interdiction. But that is for another case, another discussion.

I believe Senator Kaine mentioned an American reassurance initiative, and I want to give you a chance to talk about that a little bit more, Admiral. There has been discussion for years about developing a western hemisphere security initiative, but so far we have just not been able to get it down.

Can you tell us what the status of those conversations is and what impact that may or may not have on the future in your area?

Admiral FALLER. Senator, proximity matters, and this is our neighborhood. When you can fly to Central America shorter flights than Washington, DC from Miami, it is telling of how closely connected we are, and there have been doctrines over the years. We had the Good Neighbor Policy for FDR [Franklin D. Roosevelt]. We have had the Monroe Doctrine. I think there has been discussion by others, the think tanks, and Senator Kaine has mentioned it. I

think there might be a big idea for this hemisphere where we pull together the whole-of-government efforts necessary to recognize that these interior lines, in military speak, this neighborhood matters. China and Russia certainly recognize that.

To the extent that it takes resources, some of that resources is just our time and attention, and a little goes a long way. If it was a stock, it would have a great P/E [price-earnings] ratio and you would want to invest in it for the future, and the investments we have made are sound. I think we need to stay the course and look to where we can smartly increase and focus those investments. A big idea associated with something like, as you mentioned, a western hemisphere initiative might be a great way to start.

Senator JONES. Great. Well, thank you, sir.

Now, I would like to encourage you to stay in touch with my office about it. We are right there in Alabama, right there on the Gulf of Mexico. So it is closer to us than a lot of folks. My office is more than willing to help initiate those discussions or help develop those. So stay in touch and let us know.

So thank you very much to both of you for your service and for being here today.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Hawley?

Senator HAWLEY. Thank you, Mr. Chairman.

Admiral, General, thank you for your service. Thank you for being here today.

Admiral, let me start with you. My State of Missouri has been deeply affected by the drugs coming into this country from Latin America. Your testimony has provided examples of certain Latin American countries who are stepping up their effort on the counternarcotics front.

I am interested in who is maybe not pulling their weight. Can you give us some examples of places where countries could be doing more but are not doing so, have refused to do so, whether that is the result of corruption or other reasons?

Admiral FALLER. These transnational criminal organizations—$90 billion they took in last year to fuel instability across the region. They have ungoverned territory in countries across the region, and that bridges over into the NORTHCOM AOR. It is something we look at to the extent we influence and leverage and put pressure on our partners to do more.

Unfortunately, the worst offender of the whole lot is not a country that we can cooperate with right now, and that is Venezuela. We look at Venezuela where the Maduro regime is being propped up by Cuba, Russia, and China and we see the narcotrafficking that has increased substantially in the air and over land from Colombia into Venezuela. Then it becomes extremely difficult to track as it leaves in commercial privatized shipping, private airplanes, and so we look at countries stepping up, and I think the international effort on pressure on Maduro and that illegitimate regime is a focus area where we can do more.

Within the Central American countries, I would call out Panama, the relationship the Missouri Guard has with them. They have stepped up. Costa Rica has stepped up. You have got another blight of no democracy in Nicaragua which is another problem site. El

Salvador has done more. Guatemala has done more. Some others can do more. They are working on it, but there is certainly more effect that we can have from some of our partners.

Senator HAWLEY. Thank you very much. That is very helpful.

General, let me turn to you. Secretary Esper has called on our European allies to do more in the Sahel, and he has said recently that additional contributions by European allies—I am quoting him here—could offset whatever changes we make as we consider next steps in Africa.

I am wondering if you agree with that first, and then I am going to ask you to elaborate. But do you agree with that statement from the Secretary?

General TOWNSEND. I do agree with the statement that European contributions could in many ways offset what we are doing there.

Senator HAWLEY. Could you give us just on that point, General, some specific examples of ways that you think our NATO allies could contribute more in the Sahel than they currently are doing?

General TOWNSEND. Well, sure. The French have called on their European neighbors to contribute more forces to the effort there trying to directly confront the violent extremist groups there in the Sahel, specifically Mali and Niger, Burkina Faso. I think that is something they can do and should do.

Also, we are providing some support that European countries have, specifically NATO allies, a capacity to do. Airlift is one thing we are supporting the French forces with. Air refueling for French fighter aircraft is another thing. These are capacities that are resident in many European countries that they could provide. I think our Department is going to lead an effort to try to get some European partners to do some of those things and offset the support we are providing right now.

I think they do not have the capacity to do some of the more technical types of support. We do some technical intelligence type of support that is fairly exquisite, and there are not a lot of countries that can do that at that same level. But they can mitigate a lot of the support that we provide.

Senator HAWLEY. Thank you very much.

General, let me ask you about China. I am very concerned by the PLA's presence in Djibouti. Do you worry that the PLA could use its forces there to contest our ability to transit the Bab al Mandeb or adjacent waterways in a future crisis?

General TOWNSEND. On a daily basis, I do not worry a great deal about the Chinese presence in Djibouti at their base, but the potential is there. So we keep an eye on it. We are not blind to that. But there is a potential there in some future crisis that they could potentially use that base there to cause problems.

Senator HAWLEY. Let me just ask you, in your assessment what should we be doing now to assure our access to that maritime chokepoint in a future scenario?

General TOWNSEND. I think we are doing that to a great extent and that is competing, making sure that those countries that are there, Djibouti being one of them, Somalia being another one—those countries prefer the United States as a strategic partner. I am not saying that they should not interact with China or Russia at all, but what I want is at 2 o'clock in the morning when the Sec-

retary of State calls a head of state in Africa and says America needs to come in tonight, they yes to us and they do not say yes to the Chinese or the Russians.

Senator HAWLEY. My time has expired.

Admiral, I want to ask you a few questions about the Chinese activity in your AOR. I will submit those for the record.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Gillibrand?

Senator GILLIBRAND. Thank you, Mr. Chairman.

General Townsend, General Esmail Qaani, who assumed the position as the head of Iran's Qods Force after Soleimani's killing, has vowed to strike back at the United States and called on Hezbollah to exact further revenge. The Voice of America reported earlier this month that Iran may seek to strike back in Africa, citing the rise of Iranian military influence on the continent and the potential of softer targets.

What have you been doing to ensure the safety of our servicemembers and American citizens in Africa? Second, how have plans to reduce United States Forces in Africa accounted for the possible increase in future terrorist activity? How well equipped and trained are local forces in Africa?

General TOWNSEND. Senator, to your first question, we are following those reports. There is intelligence reporting that comports with that. Both the Qods Force and Lebanese Hezbollah I think are looking for opportunities to strike back at America wherever, and we think one of those places is certainly Africa. We are watching and listening carefully for that. We are not taking any specific measures yet. We do not really have a good enough picture to take actions, but we are watching and listening for that.

Then on your second question, the quality of African security forces varies widely depending on where we are talking about in Africa. Some are exceptionally good and others are not so good, and the partners that we work with—we are trying to get them all to a level where they can at least be self-sufficient would be the ideal, if they could handle their own security threats on their own.

Senator GILLIBRAND. I took a CODEL [congressional delegation] a few years ago and we did stop in Chad to assess our support and how well they were doing to support Nigeria. Do you have any thoughts about how that relationship is developing? Is it moving forward or has it retreated?

General TOWNSEND. I think that relationship is pretty sound. There is a multinational joint task force that operates there. All of those countries around the Lake Chad basin are operating there. Chad has recently redeployed some forces from Nigeria, but that was part of a scheduled move, not some sort of breakdown in the relationship or the partnership there in the joint task force. So I think that that group is functioning.

Senator GILLIBRAND. Okay.

Earlier this month, the al Shabaab launch an attack on Manda airfield, killing an American servicemember and two contractors. The New York Times reported that al Shabaab used the attacks as a message to African forces that American troops would abandon them just as they did with the Syrian Kurds. At the same time,

an African Center for Strategic Studies report stated that the activity of Africa's extremist groups has doubled since 2013.

How has the decision to withdraw support from Syria impacted the resolve and trust of our African partners?

General TOWNSEND. I do not know that our decision to withdraw from Syria has affected their calculus. That has not come up in any discussions I have had with African leaders. But the thing that they are always looking for is can we count on you as a partner. But I have not heard that they are looking towards our withdrawal from Syria as some indication.

Senator GILLIBRAND. Do you have any plans at this point or any strategies to reduce our forces in Africa? What do you think the impact of those reductions could be on our counterterrorism efforts?

General TOWNSEND. We are engaged in this blank slate review process with the Department of Defense, and I think that is a necessary and a good process to do to make sure that our resources are always pointed at our highest priorities. We have made some presentations and recommendations to the Secretary of Defense. He is still in a decision cycle, and I do not want to get in front of his decision about what may happen with our troop presence on the continent.

I will say that there are threats to America that will emanate from the African continent, both global power and great power threats, as well as violent extremist organizations.

Senator GILLIBRAND. A quick question in my remaining time on China. Both China and Russia have been making large economic investments in both Africa and Latin America in order to expand their influence around the globe. When we were in Africa, they were investing in Djibouti and doing a huge investment in the airfield there. This is yet another example of how the battle for world leadership in this century cannot be fought by just spending more money on weapons. Instead, we have to learn lessons from the failures in Iraq and Afghanistan and build lasting relationships and partnerships.

What role do your COCOMs play in any whole-of-government coordination aimed at aligning all of our levers of power towards a common goal in your respective AORs?

Admiral FALLER. What you cited about China and Russia is so key, Senator. We are seeing it in Cuba, 90 miles from Key West where China and Russia are working alongside certainly not for United States national interests or for any partnerships in the hemisphere.

But our partnerships, our mil-to-mil partnerships, are key, and working with our partners to build strong institutions. It is these institutions that do the right thing and have trust and respect the rule of law and human rights. We have a human rights office in SOUTHCOM that we staff to work on these sorts of things that are part of professionalism and part of trust building.

General TOWNSEND. Senator, I would just say our level of resourcing is such that if we want to get anything done for America on the African continent, we have to do it as a whole-of-government working with the Department of State and USAID. That is just in our DNA [deoxyribonucleic acid] at AFRICOM how we operate every day.

Senator GILLIBRAND. Thank you, Mr. Chairman.

Chairman INHOFE. Senator Cotton?

Senator COTTON. I want to talk about the biggest and the most important story in the world, the Wuhan coronavirus. This coronavirus is a catastrophe on the scale of Chernobyl for China, but actually it is probably worse than Chernobyl which was localized in its effect. The coronavirus could result in a global pandemic.

While you were all sleeping overnight, the number of diagnosed cases in China increased by 30 percent. Let me be clear. That is not new cases. That is just newly admitted cases. It is probably several orders of magnitude higher than that.

Also while you were sleeping, China now has its entire border with Russia closed, 2,600 miles. Russia has closed that border. El Al has shut down travel between Israel and China. Air France has shut down travel between China and France, and that is in addition to all the other countries that have already shut down travel.

From what we know so far—and there are still many unknowns—this virus could have both a long incubation period, as much as 14 days, and individuals could be contagious while asymptomatic, which was not the case with SARS [severe acute respiratory syndrome] in 2003.

Furthermore, from some cases, it appears that the virus could be aerosolized, which means it does not require the kind of contact that you have with, say, a married couple kissing each other or a family living in close quarters in a hotel or apartment, but rather the distances we are all sitting apart right now.

Yet, China is still lying about all of this. They have been lying about it from the very beginning, and you do not need their history of lying about SARS in 2003, though it is relevant here. You just have to see what has happened over the last 2 months. We now know that the first case manifested no later than December 1, even though China did not reveal it to the WHO [World Health Organization] until a month later on December 31st when they continued to hide it from their own citizens and they continued to say that it had been contained inside Wuhan. Today it is in every single province in China.

They also claimed for almost 2 months until earlier this week that it had originated in a seafood market in Wuhan, that locals had contracted it from animals in, say, bat soup or snake tartare. That is not the case.

The Lancet published a study last weekend demonstrating that of the original 40 cases, 14 of them had no contact with the seafood market, including patient zero. As one epidemiologist said, that virus went into the seafood market before it came out of the seafood market.

We still do not know where it originated. It could have been another seafood market. It could have been a farm. It could have been a food processing company.

I would note that Wuhan also has China's only biosafety level 4 super laboratory that works with the world's most deadly pathogens to include, yes, coronavirus.

Now, look at China's own actions. They have quarantined 60 million people—60 million—more than the entire population of our west coast. They have shut down schools indefinitely. Classes can-

celed nationwide indefinitely. Hong Kong, a part of China, has basically shut down all travel from the mainland.

That is why it is essential that we immediately stop all travel on commercial aircraft between China and the United States, making exceptions, of course, for American citizens to come back as we just brought back yesterday, allowing a central trade to flow as long as crews on ships and aircraft are not allowed to go into the general population in America, and making exceptions, of course, for medical personnel to go into China to try to get a handle on this. It is essential that we take those steps and essential that we get to the bottom of China's deceit and incompetence on this measure.

Gentlemen, I raise this with you because you are responsible in your combatant commands for some countries that have the most fragile public institutions, to include the most fragile public health institutions, in the world. So I ask, even though as of this morning there are not yet confirmed cases of coronavirus in your combatant commands, though I suspect there will be soon, what is your assessment about the ability of the governments in your combatant commands to handle a potential global pandemic like this. General Townsend?

General TOWNSEND. Thanks, Senator.

There are not, that I am aware of, any confirmed cases as you mentioned, but there are some suspected cases. The first report of a suspected case I heard of is in Djibouti, which you would imagine with the significant Chinese presence there.

The capacity of African nations to deal with this problem varies widely. For example, in eastern Africa, central east Africa, they have been dealing with Ebola and they have been dealing with Ebola largely on their own and doing a pretty good job of it. So I think capacity there, but anywhere else in Africa is probably not to that degree.

Senator COTTON. Admiral Faller?

Admiral FALLER. The Venezuela crisis has already strained the social services of many of the nations. As you are aware, Senator, we had deployed the hospital ship *Comfort* twice in 1 year to 12 different nations. In one 5-day span, it can do the equivalent of a whole month for a region of some of the major countries. So I would be extremely concerned. Like General Townsend, the capacities vary widely, but in many cases they are strained and to the limit. I would be very concerned if we saw this spread.

Senator COTTON. Thank you.

As a defensive measure, I would just say again it is essential that we shut down all commercial air travel immediately between the United States and China. As an offensive measure, because that probably will not stop it entirely and because if it becomes a global pandemic, we have to deal with countries with very limited capabilities here, we need a Manhattan Project level effort to work with our best research scientists and laboratories in this country to develop a vaccine as quickly as possible.

[Whereupon, at 10:51 a.m., the Committee adjourned.]

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JAMES M. INHOFE

UNITED STATES AFRICA COMMAND (AFRICOM)

1. Senator INHOFE. General Townsend, as of November 2019, the Nigerian Air Base 201 is in service to support intelligence, surveillance, and reconnaissance (ISR) operations, yet press reports have said the Administration is considering drawing down our presence in Africa. What is the right balance of ISR assets throughout the region to address rising violent extremism as well as great power competition?

General TOWNSEND. While different types of intelligence, surveillance, and reconnaissance assets are better-suited for these two problem-sets, we are now evaluating what the right balance should look like through the Combatant Command Review process. In short, AFRICOM does not have sufficient ISR to accomplish our currently assigned tasks with an appropriate balance of effectiveness and risk.

2. Senator INHOFE. General Townsend, due to the growing complexity of global priorities, demand for ISR capacity is stretched to its limits. How can we work with allies to collaborate on ISR priorities in Africa?

General TOWNSEND. We continually collaborate with partners to synchronize each of our independent ISR capabilities and capacities to maximize our combined collection efforts for our common strategic goals through formal and informal engagements. European partners can and should do more especially in West Africa.

3. Senator INHOFE. General Townsend, France has been a critical partner in addressing violent extremism across the Sahel—deploying MQ–9s as well as ground troops. In light of recent reports that the Administration is considering a drawdown of deployed troops, how can we marshal additional international support, including those countries that currently operate U.S. unmanned systems, to support our objectives in the region?

General TOWNSEND. Through our bilateral relationships as well as multinational forums, such as North Atlantic Treaty Organization (NATO), the European Union, and the Organization for Security and Cooperation in Europe (OSCE) we continue to advocate for increased European support to French led operations in the region. European partners can and should do more especially in West Africa.

4. Senator INHOFE. General Townsend, given the amount of engagement by China and Russia in Africa, what is the risk to the National Defense Strategy and great power competition if we withdraw some forces?

General TOWNSEND. USAFRICOM's Campaign Plan nests within the NSS and NDS; stressing the great power competition challenges faced on the continent. China and Russia continue to challenge the United States power and influence in Africa. Russia continuously attempts to marginalize United States efforts in countries with Russian interests. China challenges United States efforts across the continent with their One Belt, One Road Initiative; providing infrastructure and high interest loans. If we withdraw additional forces in Africa, China and Russia will likely fill the vacuum.

UNITED STATES SOUTHERN COMMAND (SOUTHCOM)

5. Senator INHOFE. Admiral Faller, as the region currently competes for a limited number of ISR assets, what is SOUTHCOM's vision for expanding U.S. ISR operations to ensure adequate surveillance of illicit trafficking routes and counter global and regional threats?

Admiral FALLER. We are always looking for innovative solutions to mitigate ISR shortfalls in this region. We are investing in contractor owned and operated vessels, government owned and contractor operated platforms, unmanned aircraft systems, and open source means to fill the ISR requirements for our counterdrug mission and to counter global and regional threats. With Congress' support we have been able to work with the Department of Defense's Counternarcotics policy office and U.S. Air Force to purchase commercial aircraft that can increase our surveillance capability against top threats in the region. Also with the support of Congress, we are leasing a multi-mission support vessel that is currently supporting counter drug detection and monitoring efforts. The vessel has an air surveillance radar, an unmanned aircraft system, and expanded partner nation command and control capability. Regional partners are leading interdiction efforts with the vessel by embarking their personnel and equipment.

We are also developing a concept to deploy unmanned aerial systems, for ourselves, as well as for our partner nations that would increase our regional domain awareness. Other areas in which innovation is advancing awareness are the cyber

and social media domain. We are exploring avenues to increase our capability to leverage and exploit publicly available information and open sources. The capability, if appropriately funded, will provide near-persistent and organic ISR for this AOR within the open source domain.

6. Senator INHOFE. Admiral Faller, what is SOUTHCOM's future plan to equip allies and partners with unmanned ISR systems in order to provide more thorough situational awareness of regional threats?

Admiral FALLER. Partner nations throughout the region have expressed interest in acquiring unmanned ISR systems to improve domain awareness of their sovereign borders, as well as to detect and defend against transnational threats. Brazil has purchased an unmanned aerial system (UAS), and they plan to purchase more in the future. We are incorporating these types of systems into our strategic and theater plans, and building these purchases into our long-term security cooperation and foreign assistance plans. USSOUTHCOM complements those foreign assistance programs by supporting key partners like Colombia and Brazil acquiring and/or researching modernization programs for significant UAS systems such as the MQ–9 Reaper, Scan Eagle, and potentially Blackjack. We develop security assistance programs to support partner nations with smaller UAS requirements to support counter narcotics and border security—once partner nations have this capability it will improve our collective awareness of transnational threats in the region and allow us to counter those threats collectively as well. To date, Brazil has used its own funds to purchase Scan Eagle; Colombia has used a combination of counternarcotics, section 333, and FMF to acquire Scan Eagle and hand launched UAS like PUMA; and Guatemala, El Salvador, and Honduras have acquired Raven and Puma UAS with section 333 funds.

7. Senator INHOFE. Admiral Faller, how would you describe the role of unmanned systems for use in future missions of disaster relief and humanitarian aid?

Admiral FALLER. Unmanned Aerial Systems (UAS) have been deployed by several organizations in support of Humanitarian Assistance missions, including other Combatant Commands, non-governmental organizations, and State and local governments with great success. We have informally experimented with UASs during some humanitarian response efforts previously. UAS technologies enabled situational awareness for a continuum of response options to optimize minimal resources and maximum effect, saving lives and speeding recovery times.

QUESTIONS SUBMITTED BY SENATOR THOM TILLIS

BORDER SECURITY

8. Senator TILLIS. Admiral Faller, what impact have the additional 15,000 Mexican troops on the United States border and the additional Mexican Guard troops on Mexico's southern border made to the border security effort?

Admiral FALLER. Having a layered defense is the best approach to border security. At SOUTHCOM, we work with our partners in Central America to improve their regional security and border security efforts before threats reach the Mexican border. However, the Department of State is best capable to address this issue. The Government of Mexico does not coordinate migration issues with the Department of Defense.

9. Senator TILLIS. Admiral Faller, have these additional troops stemmed the flow of illegal immigration through Mexico and into the United States?

Admiral FALLER. I would defer to NORTHCOM for specific migration information associated with Mexican troop deployments.

10. Senator TILLIS. Admiral Faller, what, if anything, have the Northern Triangle countries of Guatemala, Honduras, and El Salvador done to prevent people from fleeing north?

Admiral FALLER. Guatemala, Honduras, and El Salvador have made great advances in helping stop migrants headed toward our southwest border. On Jan. 15, 2020, a migrant caravan originated in San Pedro Sula, Honduras. Because of enforcement actions by Mexico, Guatemala, Honduras, and El Salvador, the caravan never arrived at our southwest border. Their actions included apprehensions, repatriations, increased border security, and arrests of organizers and facilitators. That is just one example showing how these countries are working on this problem set together.

Guatemala, Honduras, and El Salvador also continue biometrically enrolling caravan migrants. Guatemala was the first country in the region to sign an Asylum Cooperation Agreement with the United States in July of 2019. This agreement allows the transfer of third-country nationals from El Salvador and Honduras who are seeking asylum or other forms of protection in the United States to apply for asylum in Guatemala in order to prevent abuse of the asylum process and removes key incentives for attempting to illegally enter the United States Guatemala has been receiving ACA transferees since November 21, 2019.

Ultimately, these countries will need to focus on citizen security so that their populations feel safe, and economic development so that the people have hope for a better life. USSOUTHCOM works with our partner militaries in the region to help train and equip them to better secure their nations, largely through security cooperation programs like 333 and joint, combine exercises—two programs at risk of sustaining cuts in fiscal year 2021.

11. Senator TILLIS. Admiral Faller, have there been any specific military-related cooperation efforts in this area between United States Southern Command and the Northern Triangle countries?

Admiral FALLER. Through our security cooperation efforts, we have trained and equipped various military units, to include partner nation air forces, armies, and navies, to perform border and maritime security functions and protect their own sovereign territory. USSOUTHCOM relies heavily on section 333 building partner capacity authorities to build and improve partner nation capabilities to counter shared threats that directly impact the security of the homeland. Further, our security cooperation programs are rooted in the fundamental respect for universal human rights and emphasize the importance of civilian control of the military. Through our Defense Institution Building programs, we strengthen the Ministries of Defense to assist partners implement policies and processes that allow for more informed decision-making, and align scarce defense resources with mission priorities to address national and regional security issues. This elevates the holistic output of our programs, ensuring our partner nations can similarly apply a whole-of-government approach to guarantee citizen security. We also share intelligence on transnational criminal organizations that threaten our shared interests, which in turn helps these partners develop their organic capabilities to identify and disrupt key criminal groups involved in the movement of drugs and people to our Homeland. Additionally, our civil affairs personnel work alongside other U.S. agencies, as well as nongovernmental organizations and host nation agencies to mitigate facets of instability within the Northern Triangle. This improves host nation responsiveness to its population by addressing civil vulnerabilities in order to reduce the causes of migration and support capacity to conduct civil-military operations.

QUESTIONS SUBMITTED BY SENATOR MARTHA MCSALLY

COUNTER-DRUG OPERATIONS

12. Senator MCSALLY. Admiral Faller, last year you discussed the Cartels' use of submersibles, naval tracks going further out to sea, and remote air fields to facilitate the flow of drugs. Please provide an update on the latest tactics that the drug cartels are using and how we're countering them.

Admiral FALLER. Drug traffickers continuously adjust their tactics to improve their concealment techniques, and have been moving toward secure communication devices and applications to coordinate drug shipments. They smuggle cocaine primarily via noncommercial maritime movements, using go-fast vessels, fishing boats, and low profile vessels that originate from Colombia, Ecuador, and Venezuela. We are seeing an increase in illicit air traffic from Venezuela, indicating traffickers are increasingly using the permissive environment under the Maduro regime to move drugs toward the United States. The volume of known aerial drug flow from Venezuela in 2019 was about 11 percent higher than in 2018 and 94 percent higher than in 2015. Additionally, traffickers are now using larger, faster aircraft to more quickly move greater quantities of drugs while reducing their risk of interdiction. For example, at least 10 of the 55 aircraft identified by Guatemalan authorities in 2019 as involved in cocaine trafficking were jets designed to move small groups of people.

In addition to traditional air and maritime movements, drug trafficking organizations (DTOs) will continue to exploit the use of maritime container shipments to transport narcotics. To combat these ever-changing tactics, we rely on Joint Interagency task Force-South (JIATF–S) as the action arm of SOUTHCOM in the

counter-drug fight. JIATF–S has seamless integration between the intelligence and operations directorates. Additionally, JIATF–S has Tactical Analysis Team (TAT) positions in key source and destination countries to facilitate increased information sharing between JIATF–S, foreign partners, and law enforcement. JIATF–S is working with SOUTHCOM and regional partners to deploy new ground-based radars to increase real-time information flow an improve security response times and accuracy. JIATF–S has also developed a specialized container targeting cell that works directly with the National Targeting Center to counter the increased use of container shipments. Resourcing is key to the fight.

HUMAN SMUGGLING

13. Senator MCSALLY. Admiral Faller, criminal organizations in your area of responsibility have become more involved in migrant smuggling. In fiscal year 2019, United States authorities apprehended nearly 608,000 unauthorized migrants from the Northern Triangle at the southwest border. Families or unaccompanied minors made up 81 percent of those apprehended, many of whom were seeking asylum. Please provide an explanation of SOUTHCOM's role in countering these criminal smuggling operations, protecting potential asylum seekers, and securing our borders.

Admiral FALLER. Effectively addressing issues such as criminal smuggling operations, protecting potential asylum seekers, and securing our borders requires SOUTHCOM to leverage our partnerships with the interagency community and to take a whole-of-government approach. A key partner in this area is the U.S. Department of State and State's Bureau of International Narcotics and Law Enforcement Affairs (INL). Together SOUTHCOM and the Department of State use a wide range of tools to counter crime, illegal drugs, and instability abroad, including foreign assistance, bilateral diplomacy, multilateral engagement, and reporting, sanctions, and rewards. Specifically, SOUTHCOM leverages our partnerships and contacts with partner nations to help develop and implement the architecture necessary for international drug control and cross-border law enforcement cooperation. SOUTHCOM works in unison with INL and our partner nations, international and regional organizations, non-governmental organizations, U.S. Federal, State, and local criminal justice entities to achieve these goals. All of our programs are consistent with security and governance priorities of the United States Strategy for Engagement in Central America and the Central America Regional Security Initiative (CARSI), and complement efforts under the Central American Governments' Alliance for Prosperity.

QUESTIONS SUBMITTED BY SENATOR RICK SCOTT

UNITED STATES SOUTHERN COMMAND

14. Senator SCOTT. Admiral Faller, we have watched over the last 2 years as Russia and Cuba continue to prop up dangerous dictators like Nicolas Maduro in Venezuela. Can you tell me the current status of their presence in Venezuela?

Admiral FALLER. Russia maintains several hundred military and civilian personnel throughout Venezuela. These personnel enhance Venezuela's military readiness by repairing Russian-origin equipment, improving intelligence and surveillance capabilities, training personnel, and advising on cybersecurity and domestic security. In 2018 and 2019, Moscow deployed two nuclear-capable Tu-160 Blackjack bombers to Venezuela to demonstrate their support for the Maduro regime. Additionally, Russia has investments and joint ventures in the extraction of natural resources throughout the country.

Havana's security and economic partnership with Caracas remains very strong. Cuba continues to provide to the Maduro regime an estimated 20,000 to 25,000 trainers, advisors, doctors, personal security forces, and intelligence agents who enable the regime's control and oppression of the Venezuelan people. Caracas, in exchange, helps fulfill Cuba's oil needs, as Havana remains heavily dependent on Caracas for energy.

15. Senator SCOTT. Admiral Faller, do Russia and Cuba have plans beyond simply keeping Maduro in power?

Admiral FALLER. Moscow's and Havana's goals in Venezuela extend beyond keeping Maduro in power. Russia views a partnership with Venezuela as a key geostrategic objective. Russia hopes to extract oil through several joint ventures, and profit as an intermediary for Caracas' oil sales. Venezuela still owes $800 million to Russian oil firms, down from $2.3 billion in early 2019, as well as approxi-

mately $3 billion to the Russian Government. A close relationship with Maduro's regime also allows Moscow to deepen its security footprint, project power, and collect intelligence out of Venezuela, challenging United States interests in our near abroad. Moscow may also seek to expand its presence in the region beyond Venezuela, through other authoritarian regimes such as Nicaragua. Russia likely intends to maintain a lasting presence in Venezuela to support its economic interests and disrupt United States objectives.

Cuba sympathizes ideologically with Maduro's regime and also seeks to keep Caracas as an economic lifeline. Cuba is heavily dependent on external support for vital resources, in particular oil from Venezuela. Cuba refines Venezuelan crude for its own use and for resale, bringing in needed foreign currency.

16. Senator SCOTT. Admiral Faller, what is Communist China's role in Venezuela?

Admiral FALLER. Beijing provides economic and security support to Maduro's regime. China is Venezuela's largest creditor, with Venezuela facing $20 billion in debt. Beijing seeks to maintain a close relationship with Caracas in part to ensure payment of this debt through oil deliveries. Chinese state-owned enterprises have provided significant loans for infrastructure support, including improving Venezuela's 4G and 5G networks. Some of this support directly supports Maduro's repressive apparatus. For example, the assistance provided by Chinese state-owned firm ZTE enables the "Carnet de la Patria" system, tying food rations to political reliability. As of 2018, China had sold approximately $1 billion in military equipment to Venezuela, to include combat aircraft, light tanks, and other armored vehicles, and air search radars. Additionally, Beijing in 2019 provided to the Maduro regime 68 tons of humanitarian aid, mostly medical supplies.

17. Senator SCOTT. Admiral Faller, what does Communist China want out of its support for Maduro?

Admiral FALLER. China remains deeply invested in Venezuela's natural resources, and wants to protect its investments and joint oil ventures. Chinese official foreign direct investment in Venezuela is over $3 billion, largely concentrated in the joint petroleum venture, Sinovensa, as well as in railroads, telecommunications, and mining. Beijing also wants to ensure Venezuela repays its $20 billion debt. The Chinese Government also tries to use its approach to Venezuela to portray itself as a responsible global power as opposed to foreign intervention in domestic disputes.

UNITED STATES AFRICA COMMAND

18. Senator SCOTT. General Townsend, what are you seeing in Africa in terms of China's efforts to get control of strategic ports and industries?

General TOWNSEND. China is Africa's number one trading partner and is more reliant than any other nation on trade through the Red and Mediterranean Seas. Beijing seeks to secure its access to those trade routes and is aggressively pursuing military access to strategic ports in East and West Africa through infrastructure investments and securing port operator licenses. Beijing likely does not need full control over African nation's port facilities to achieve its goals for commercial and military access. These ports have political, commercial, military, and security objectives, therefore they need better networks of roads and rail lines that China has already started investing in.

China invests in companies and infrastructure for natural resource extraction in African nations. The bulk of Africa's exports to China is raw materials. Though Beijing does not seek to directly control these industries, Chinese investments provides Beijing a platform to secure access to African industries and exert influence on African political and economic elites.

QUESTIONS SUBMITTED BY SENATOR JOSH HAWLEY

CHINESE INVESTMENTS NEAR PANAMA CANAL

19. Senator HAWLEY. Admiral Faller, you wrote in your testimony that "Chinese investment in deep-water ports and infrastructure on both sides of the Panama Canal could enable the [People's Liberation Army (PLA)] to threaten sea lanes vital to global commerce and the movement of United States Forces." Can you elaborate on this statement?

Admiral FALLER. Chinese companies, many with close ties to the Chinese Communist Party (CCP), manage ports on both sides of the Canal. While the Panama Canal Authority controls overall canal operations, Beijing could leverage its companies' access to the canal and associated critical infrastructure to slow or delay

United States vessels' use of the canal during a crisis or during a political dispute. China leverages military modernization, influence operations, and predatory economics to coerce countries to its advantage and compete for influence.

PLA'S AMBITIONS IN SOUTHCOM AREA OF RESPONSIBILITY (AOR)

20. Senator HAWLEY. Admiral Faller, how would you described the PLA's long-term ambitions in the SOUTHCOM AOR?

Admiral FALLER. China is competing with the United States for influence in the region and seeks to supplant the United States' standing as the region's partner of choice. Beijing's increasing economic engagement in the region over the past three decades is a deliberate strategy China has used in other regions to create favorable conditions for enhanced military-to-military cooperation, ranging from combined training to expanding deployments. The PLA is likely to:

1. Provide security along the growing number of trade routes associated with China's One Belt One Road Initiative, particularly against non-state actors, such as pirates;
2. Achieve Beijing's stated goal of building closer relationships with host government officials by providing military training modeled after the United States' International Military Education and Training (IMET) programs;
3. Engage in global humanitarian assistance and disaster relief operations to gain recognition as a responsible and reliable international humanitarian aid provider;
4. Increase naval diplomacy, to include deployments of its hospital ship ANWEI, and pursue its long-term strategy to obtain naval bases overseas through construction, purchases, and long-term leases; and
5. Provide "gifts" of military equipment to foster closer security relations, follow-on foreign military sales, interoperability, and joint exercises and operations.

CHINESE ACTIVITIES IN SOUTHCOM AOR

21. Senator HAWLEY. Admiral Faller, China has been rapidly expanding its presence in Latin America. Can you describe the challenges posed by China's efforts, especially when it comes to port access and telecommunications infrastructure?

Admiral FALLER. Our main concern is that Chinese investment in deep water ports and infrastructure in the region could enable the People's Liberation Army (PLA) to threaten sea-lanes vital to global commerce and the movement of United States Forces during a crisis. Beijing's focus on port development increases its global and regional economic access and supports its efforts to become Latin America's top trading partner. China is the top trading partner for five counties in the region and remains the regions second largest trading partner behind the United States. The Chinese Government will provide loans to develop ports and other critical infrastructure. When countries cannot pay back the loan, Beijing is not above taking ownership of the project, as we have seen in its handling of Sri Lanka's inability to pay for a port development loan. This enables Beijing to exercise economic pressure to resolve political or legal disputes.

Chinese companies are the main telecommunications infrastructure provider for most countries in the region. These companies, such as Huawei and ZTE, are aggressively promoting 5G wireless networks and Safe City technology in Latin America and the Caribbean. Under Chinese law, Beijing can compel companies to share data with its security and intelligence services, including those companies doing business outside of China. Moreover, as National Security Advisor Robert O'Brien stated in February, we have evidence that Huawei has the capability secretly to access sensitive and personal information in systems it maintains and sells around the world. Adopting Chinese telecommunications technology could limit the United States' ability to share data with our partners because we would not be able to ensure the security/data integrity of these networks.

Additionally, most of the precursor chemicals necessary to produce the illicit drugs that are trafficked to the United States originate from Chinese companies and are exported to ports in both the producing countries and in Central America.

QUESTIONS SUBMITTED BY SENATOR RICHARD BLUMENTHAL

LIBYA

22. Senator BLUMENTHAL. General Townsend, what is AFRICOM's role in mitigating ongoing tensions in Libya, and what are the key United States strategic interests in resolving this conflict?

General TOWNSEND. USAFRICOM continues to support Ambassador Norland and the Department of State's Libya External Office efforts toward a diplomatic and political solution to the Libyan conflict. The United States has a strategic interest in a stable and prosperous Libya. An independent and secure Libya promotes economic growth and stability in the region.

23. Senator BLUMENTHAL. General Townsend, will the Trump Administration devote more military resources to supporting the Berlin agreement and supporting our military partners on the ground?

General TOWNSEND. The Department of Defense is currently directing a series of Combatant Command Reviews. AFRICOM is reviewing all of our military requirements and resources supporting the interagency and our African partners. We continue to emphasize military support to diplomacy and development engagement, which serves to consolidate military and other security gains.

24. Senator BLUMENTHAL. General Townsend, do you think that additional investment is helpful or necessary to support the Berlin agreement and support our military partners on the ground?

General TOWNSEND. From a military perspective, AFRICOM recognizes the potential value of additional investment and resources but those decisions will be guided by any future policy decisions. The Government of National Accord and our aligned forces benefit from U.S. engagement, including the assets we provide to bolster Ambassador Norland's engagements.

25. Senator BLUMENTHAL. General Townsend, in addition to potential military support, how do you think the United States should engage diplomatically in the conflict in Libya?

General TOWNSEND. AFRICOM continues to support the Libya External Office and all State Department engagements in Libya within our current resources and authorities. Ambassador Norland's recent travel to the Berlin conference shows how diplomacy can leverage our support for a peacefully negotiated resolution to the conflict in Libya.

26. Senator BLUMENTHAL. General Townsend, what does an escalation of violence in Libya mean to the United States and our regional partner's interests in the Maghreb?

General TOWNSEND. Further escalation of the Libyan conflict will likely exacerbate a series of political, economic, and security challenges for the United States and our regional partners. The widespread weapons proliferation, use of private military contractors and foreign fighters, and oil disruptions are already overwhelming Libya's institutions, resulting in ungoverned spaces that increase internal displacement and forced migration, and create opportunities for radical and extremist actors. These actors are also making use of private military companies and foreign fighters as combatants in order to obfuscate their activities. We expect these trends will continue to spill over into other fragile countries, as we observed in Mali in 2012. Our regional partners—Morocco, Algeria, Tunisia, and Egypt—would feel the majority of these effects, as would our European allies, who are the top recipients of Libyan migrants and largest importers of Libyan oil. Worsening violence would also hamstring Libya's greatest resource, hydrocarbons, causing ripple effects across global oil prices.

27. Senator BLUMENTHAL. General Townsend, what do you see as the most destabilizing factor in the Libyan conflict, and what should the United States strategy prioritize to encourage a peaceful outcome?

General TOWNSEND. The perpetuation and escalation of the Libyan conflict is a direct result of foreign interference. External actors have not only armed and supplied both sides, but are providing direct military support by providing reinforcements in the form of private military contractors and/or foreign fighters, air support, intelligence, and training. As long as external actors continue to replenish the forces of each side, the conflict will continue.

IRANIAN PROXY THREAT IN SOUTHCOM

28. Senator BLUMENTHAL. Admiral Faller, how have recent events impacted your force protection assessment of both United States Forces deployed forward and our partners, as it relates to the threat of Iranian proxies in SOUTHCOM?

Admiral FALLER. Lebanese Hezbollah does maintain a presence in our neighborhood, largely conducting logistical support, money laundering, and fundraising that

we watch closely. In recent months, Argentina, Honduras, and Paraguay have designated Hezbollah as a terrorist organization, and Brazilian officials stated they plan to do the same. As the world's largest state sponsor of terrorism, any increased Iranian presence this close to our homeland is cause for concern. We have seen an increased Iranian presence in Venezuela since its crisis deepened. We continue to watch the threat from Iran closely.

29. Senator BLUMENTHAL. Admiral Faller, what are actions you are taking to address these force protection concerns and keep both our servicemembers and our partners safe?

Admiral FALLER. Our actions include persistent threat information and intelligence sharing at the speed of relevance; education and training; key leader engagements; security cooperation; defense/security institution building as well as the strengthening of our partner nation military and security forces to counter threats in order to enhance and operationalize security across the Joint Force. For example, we work with our partners to conduct subject matter expert exchanges to share best practices with military police teams that provide force protection and physical security support. We have also conducted a short-notice force protection assessment of our forward locations to ensure vigilance, adherence to procedures, rigorous training, and proper equipment.

30. Senator BLUMENTHAL. Admiral Faller, do you require any additional resources to protect our people and our assets?

Admiral FALLER. It is imperative that we remain vigilant against this threat. Increased human intelligence (HUMINT) capacity, a lower cost solution to technical ISR, provides a more penetrative capability to target groups, organizations, and networks to discern planned actions and intended outcomes of Iranian proxies that pose a more nefarious direct threat to United States security. We must also marginalize malign Iranian influence by continuously improving security cooperation and information sharing with our partners and maintaining persistent presence throughout the region.

31. Senator BLUMENTHAL. Admiral Faller, in your assessment, what regions within your area of responsibility are most susceptible to targeting by Iranian proxy groups?

Admiral FALLER. The Iranian Threat Network (ITN), to include Lebanese Hezbollah, views the entire region as a permissive operating environment. Because of the ITN's diffuse presence in the region, the group could target Western interests anywhere. The ITN could exploit migration flows through Central America or refugee streams out of Venezuela into neighboring countries to facilitate its terrorist-related activities. Historically, Iranian proxies have operated in the "tri-border" region of Argentina, Brazil, and Paraguay. They also have looked to carry out attacks in areas with a pronounced DOD and/or Israeli presence in the region.

QUESTIONS SUBMITTED BY SENATOR MAZIE K. HIRONO

POPULATION GROWTH

32. Senator HIRONO. General Townsend, as noted in your posture statement, the population of the African continent is growing rapidly, projected to double by 2050 and double again by 2100. This population growth has the potential to exacerbate the extreme poverty present on the continent, especially among younger generations who both make up the majority of the population and who are most vulnerable to recruitment by violent extremist organizations. How can the military prepare for conflict in areas of highly concentrated large populations?

General TOWNSEND. The militaries of our African partners must prepare themselves to address these complex challenges by continuing their current efforts to professionalize their forces. Not just in terms of operational capability, but also in terms of solidifying command and control along with a respect for the protection of civilians, so that more and more militaries in Africa are sources of stability. DOD and DOS security sector assistance programs address both these aspects of professionalizing their armed forces.

33. Senator HIRONO. General Townsend, what role does interagency cooperation play in addressing these issues and what partnership programs exist for AFRICOM to address the results of population growth and poverty rates?

General TOWNSEND. In Africa, we see our work in the security sector as a critical enabler of our interagency partners' efforts across the continent. AFRICOM works closely with interagency partners across our area of responsibility; our embedded State and USAID experts reinforce that multi-level coordination to ensure our DOD programs are synchronized with broader Whole-of-Government efforts. Our long-standing partnership improves responsiveness to the challenges posed by population growth and widespread poverty.

BORDER WALL

34. Senator HIRONO. Admiral Faller, the President has stated that he will fund the border wall with money appropriated by this Congress for military construction (MILCON) projects, including nearly $254 million in fiscal year 2019 (fiscal year 2019) military construction funds from SOUTHCOM, and $124 million in fiscal year 2020 counterdrug money. How will these anticipated transfers affect overall SOUTHCOM readiness or will they at all?

Admiral FALLER. To date, SOUTHCOM funding has not been directly impacted by these transfers. However, the budget uncertainty that comes from these policy debates does impact our ability to plan internally, as well as with our partner nations.

35. Senator HIRONO. Admiral Faller, what are the consequences of withholding this funding?

Admiral FALLER. Right now, the only practical consequence we have observed is an increased uncertainty in our ability to plan and our ability to execute contractual obligations due to the slow movement of funding allocation.

QUESTIONS SUBMITTED BY SENATOR MARTIN HEINRICH

BORDER WALL

36. Senator HEINRICH. Admiral Faller, the Washington Post has reported that the Administration plans on diverting an additional $7.2 billion in counterdrug and MILCON funding in the fiscal year 2021 bill to construct the President's wasteful and ineffective border wall. I understand you can't speak to the fiscal year 2021 budget, but SOUTHCOM is charged with deterring and defeating threats to defend the U.S. Homeland and our interests—many of the threats within SOUTHCOM's area of responsibility involve counterdrug efforts. Is a border wall the most effective military or defense investment we can make to prevent entry of illegal drugs into the United States?

Admiral FALLER. Border security is national security. DTOs are continuously adjusting and varying their techniques for smuggling illicit cargo into our homeland and we must therefore create a defense in depth to counter these illicit pathways. SOUTHCOM is charged with conducting detection and monitoring in support of law enforcement in the air and maritime domains, which is where our experience and expertise are focused. The United States-Mexico land border falls under the responsibility of United States Northern Command.

37. Senator HEINRICH. Admiral Faller, what investments, capabilities, and resources, in your experience, have proved to be most effective in disrupting the movement of illegal drugs and preventing their entry into the United States?

Admiral FALLER. The most effective strategy in the fight against illicit trafficking in the air and maritime domains is fighting it as a team. We are taking a three-pronged approach to this mission—security cooperation to increase partner capacity, increased intelligence to better understand the threat, and increased assets to action that intelligence.

Last year, our partners played a critical role in 50 percent of our drug interdictions, up from 40 percent the year before. Getting our partners in the game by training and equipping them through security cooperation programs is exactly the right approach as these threats affect us all, and we need to tackle them together. Security cooperation programs allow us to train, advise, educate, and equip our partner nations—enabling them to help us in this fight.

In order for us to function as an effective team, we need more intelligence, surveillance, and reconnaissance. The ideal force package for maritime detection and monitoring includes long and medium range maritime patrol aircraft, using capable maritime radar and camera systems for detection, classification, and monitoring. The P–3 and P–8 flying missions deep in the Eastern Pacific allow for interdiction of illicit conveyances far from shore, and outside dense fishing fleets. Medium range mari-

time patrol aircraft like the DH–8 and HC–130 are very capable platforms utilized closer to shore, but are nearly as effective. Similarly, persistent U.S. Coast Guard medium endurance and national security cutters in high threat areas, properly equipped with Airborne Use of Force (AUF) capable helicopters and Over-The-Horizon (OTH) small boats are the backbone of counter-narcotics operations in the source and transit zones. Creative solutions such as the Multi-Mission Support Vessel (MMSV), the PALE ALE aircraft, and use of unmanned aerial systems like the MQ–9 contribute to the mission by filling in asset gaps.

QUESTIONS SUBMITTED BY SENATOR ELIZABETH WARREN

COMBATTING TERRORISM

38. Senator WARREN. General Townsend, the Sahel is experiencing a "devastating surge in terrorist attacks," according to officials from the United Nations, with terror-attack casualties in the region increasing five-fold since 2016. This challenge cannot be addressed by military power alone and investing in our civilian tools is a cost-effective way to prevent further conflict—for every $1 we spend on prevention, we save $16 in response costs. How do investments in the State Department, USAID, and other civilian tools of national security support your goals of promoting security and stability in Africa?

General TOWNSEND. USAID and State lead U.S. efforts to support the long-term solutions to insecurity and instability including economic growth, development, and good governance. Additionally, USAID and State's work on capacity building directly supports security and stability, through professionalization of security forces via International Military Education and Training (IMET) and institutional capacity building programs funded with Foreign Military Financing and Peacekeeping Operations funds, as well as social cohesion and counter violent extremism messaging.

MIGRATION

39. Senator WARREN. Admiral Faller, as former SOUTHCOM Commanders General Craddock, General Hill, General McCaffrey, General Wilhelm, and Admiral Stavridis have noted, "Improving conditions in Honduras, Guatemala, and El Salvador is a critical way to address the root causes of migration and prevent the humanitarian crisis at our border. This is a solution to many of the drivers that cause people to leave their country and move north." Do you agree with these senior military leaders that we need a comprehensive civilian-military effort to tackle the challenges in the Northern Triangle and advance our security interests?

Admiral FALLER. I do strongly agree that the challenges facing our partners in Central America are complex and require a comprehensive whole-of-government effort. Several factors contribute to individual or family units' decision to migrate to the United States. The United States Strategy for Engagement in Central America, and Central America governments' complimentary strategy, Alliance for Prosperity broadens our vision for how we achieve security. The plans prioritize three interconnected objectives: prosperity, governance, and security. A secure, democratic, and prosperous Central America will provide an environment in which all of its citizens choose to remain and thrive.

40. Senator WARREN. Admiral Faller, what do you recommend that we do differently to tackle the challenges in the Northern Triangle and advance our security interests?

Admiral FALLER. The challenges in the Northern Triangle can be found all around the region and would truly benefit from a sustained, whole-of-government approach to address the threats and unlock the promise of this hemisphere. Getting our partners in the game by training and equipping them through security cooperation programs like section 333, and professionalizing militaries through Defense Institution Building is exactly the right approach. In order for us to be a reliable, trusted partner, these security cooperation programs must be part of long-term strategic plans, catered to the needs and capabilities of each country. This kind of out-year planning would require increased, multi-year, consistent funding that protects against the instability posed by things like government shutdowns and continuing resolutions. Programs like IMET and FMF through the Department of State funding are also a critical part of this holistic solution, as are economic development programs by USAID and the newly developed U.S. International Development Finance Corporation (USIDFC), which is aimed at catalyzing market-based, private-sector development, spurring economic growth in less-developed countries, and advancing the foreign policy interests of the United States.

41. Senator WARREN. Admiral Faller, new leaders in the Northern Triangle region are taking responsibility for addressing migration to the United States. For example, El Salvador's new president is prioritizing tackling the root causes of migration—from corruption to poverty. However, in spite of these commitments, the U.S. has not restored the majority of funding to the region that was cut off last spring. Given the Administration's focus on burden-sharing, are you concerned that continuing to withhold funding to the region could undermine efforts by these leaders, who will need our support to bolster efforts to curb forced migration?

Admiral FALLER. In light of the administration's policies toward the region, the Department of Defense is permitted to fund security cooperation programs that directly impact the national security interests of the United States. This includes programs that address improving partner nation security forces to counter transnational crime and secure porous borders. IMET, which is a critical tool in building and strengthening relationships and partnerships in the region in the long term, is also increasingly available. Both of these programs work in concert to enhance shared values and increase burden sharing throughout the region.

QUESTIONS SUBMITTED BY SENATOR DOUG JONES

SUCCESS IN COLOMBIA

42. Senator JONES. Admiral Faller, the United States has had some notable success in helping Colombia develop its own security forces, who now help other countries develop theirs. Are there lessons from this relationship we can export to our other train, advise, and assist missions?

Admiral FALLER. Colombia has invested a great deal of its own resources in treasure and blood over the last two decades to achieve the successes you note. Signed in 2000, Plan Colombia included both foreign and military assistance for Colombia. It had a great deal of bipartisan support in the United States that has been strategically sustained over the years. Efforts to assist Colombia were also international, with the European Union supporting social and economic programs. This sustained support has now enabled Colombia to export military and security training to seven countries in the hemisphere.

The United States-Colombia Action Plan on Regional Security (USCAP) is a collaborative arrangement between the United States and Colombia to conduct security cooperation capacity building training and investments in seven regional partner nations. Since 2013, there have been over 500 engagements and a total of 6,200 partner nation personnel trained. Just one example of how Colombia is training other nations through USCAP is the Regional Helicopter Training Center, which is a Spanish language initial entry rotary wing qualification course located in Melgar, Colombia. The center annually trains 50 Colombian military members and 24 Latin American partner nation students.

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2021 AND THE FUTURE YEARS DEFENSE PROGRAM

THURSDAY, FEBRUARY 13, 2020

UNITED STATES SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

UNITED STATES NORTHERN COMMAND AND UNITED STATES STRATEGIC COMMAND

The Committee met, pursuant to notice, at 9:30 a.m. in room SD–G50, Dirksen Senate Office Building, Senator James M. Inhofe (Chairman of the Committee) presiding.

Committee Members present: Senators Inhofe, Fischer, Cotton, Rounds, Ernst, Tillis, Sullivan, Cramer, McSally, Scott, Blackburn, Hawley, Reed, Shaheen, Gillibrand, Blumenthal, Kaine, King, Heinrich, Peters, Manchin, and Jones.

OPENING STATEMENT OF SENATOR JAMES M. INHOFE

Chairman INHOFE. The meeting will come to order.

I have already kind of explained the situation we have. You and I are both going to waive our opening statements, as are our witnesses. Then we get right into questions. I think we will be fine with the votes coming up that way.

[Statement of General Terrence J. O'Shaughnessy as prepared for delivery.]

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

Chairman Inhofe, Ranking Member Reed, and distinguished Members of the Committee: I am honored to be here today and to serve as the commander of U.S. Northern Command and North American Aerospace Defense Command. I am also pleased to testify alongside Admiral Chas Richard. Chas and his team at STRATCOM have been outstanding partners every step of the way.

I will keep my remarks brief this morning, and I would ask that my full written statement be entered into the record. USNORTHCOM and NORAD are charged with executing the National Defense Strategy's number one objective: Defend the Homeland.

Our adversaries have watched, learned, and invested to offset our strengths while exploiting our weaknesses. They have demonstrated patterns of behavior that indicate their capability, capacity and intent to hold our Homeland at risk below the nuclear threshold.

The changing security envirnoment makes it clear that the Arctic is no longer a fortress wall, and our oceans are no longer protective moats. They are now avenues of approach, which highlights the increase in adversary presence in the Arctic.

We need to invest in a capable and persistent defense that can deter adversaries, protect critical infrastructure, enable power projection forward and prevent Homeland vulnerabilities.

To deter, detect, and defeat the threats arrayed against the Homeland today, USNORTHCOM and NORAD are transforming our commands and our way of thinking. We cannot defend the Nation against 21st century threats with 20th Century technology. We must be able to outpace our adversaries using a layered defense infused with our latest technology.

As such, our layered defense needs to establish awareness in all domains, from below the oceans to the highest levels of space, including the unseen cyber domain, which are all at risk. We need a layered sensing grid, with sensors in all domains, to detect and track threats from their point of origin.

It requires the ability to discriminate between ballistic missiles, advanced cruise missiles, hypersonics and small unmanned aerial systems at the full ranges from which they are employed as well as the platforms from which they are delivered.

We need an adaptable architecture for Joint All-Domain Command and Control, capable of fusing a myriad of sensors across the globe into accurate, decision-quality threat information, and at the speed of relevance for effective command and control.

Lastly, we need the ability to deploy defeat mechanisms capable of neutralizing advanced weapons systems in order to defend the Homeland. We have put great effort into these areas, such as ballistic missile defense, and the need also exists to agressively defeat additional threats, to include the ever-growing cyber and cruise missile threat.

Consistent with these concepts, we are changing how we engage with industry. We are in partnership with the Defense industry to harness emerging technologies and also collaborate with the commercial industry to leverage existing and rapidly advancing technology in order to apply them to our current Homeland defense problem sets.

We have shared our toughest challenges with a wide array of industry partners, ranging from traditional large defense companies to small and new commercial start-ups, so they can plug into our Homeland defense system of systems. we have received an overwhelming response from industry and we are optimistic. However, more needs to be done to keep pace with the advancing threats to our Homeland. We need to ensure we have complete awareness of what is happening in and around our great Nation and have the ability to defeat all threats.

In line with the National Defense Strategy (NDS) and to capture our sense of urgency, we have declared 2020 as the year of Home-

land defense. We are mindful of the gravity of our mission and of the trust that you have placed in us. You and the Committee should have great faith in the men and women at USNORTHCOM and NORAD because together, we have the watch. Thank you for your support and I look forward to your questions.

PREPARED STATEMENT BY GENERAL TERRENCE J. O'SHAUGHNESSY

UNCLASSIFIED

STATEMENT OF

GENERAL TERRENCE J. O'SHAUGHNESSY, UNITED STATES AIR FORCE

COMMANDER

UNITED STATES NORTHERN COMMAND

AND

NORTH AMERICAN AEROSPACE DEFENSE COMMAND

BEFORE THE

SENATE ARMED SERVICES COMMITTEE

13 FEBRUARY 2020

Introduction

Chairman Inhofe, Ranking Member Reed, and distinguished members of the Committee: I am honored to appear before you today and to serve as the Commander of U.S. Northern Command (USNORTHCOM) and North American Aerospace Defense Command (NORAD).

Our commands are driven by a single unyielding priority: defending the homeland. In the years following the Cold War, our nation enjoyed the benefits of military dominance as well as geographic barriers that kept our homeland beyond the reach of most conventional threats. Our power projection capabilities and technological overmatch allowed us to fight forward, focusing our energy on the conduct of operations overseas.

However, our key adversaries watched and learned, invested in capabilities to offset our strengths while exploiting our weaknesses, and have demonstrated patterns of behavior that indicate they currently have the capability, capacity, and intent to hold our homeland at significant risk below the threshold of nuclear war. Eroding military advantage is undermining our ability to detect threats, defeat attacks, and therefore deter aggression against the homeland. This is emboldening competitors and adversaries to challenge us at home, holding at risk our people, our critical infrastructure, and our ability to project power forward.

The threats facing our nations are real and significant. The Arctic is no longer a fortress wall, and our oceans are no longer protective moats; they are now avenues of approach for advanced conventional weapons and the platforms that carry them. Our adversaries' capability to directly attack the homeland has leapt forward, and they are engaged in overt, concerted efforts to weaken our national technological, economic, and strategic advantage. To address this reality, our two distinct but complementary commands are taking significant, vigorous steps to ensure

our homeland defense enterprise is ready to deter, detect, and defeat threats now and well into the future.

Today, USNORTHCOM and NORAD stand more united than ever and are laser-focused on our vital mission to defend the homeland. Just as our adversaries have signaled their intent to hold the United States at risk, we are making it equally obvious that an attack against our country is destined to fail and will result in an unacceptable cost to our adversaries. Even so, we must be clear-eyed about the challenges ahead of us and steadfast in our resolve to defend our nation against committed and well-resourced adversaries.

Threats to the Homeland

The strategic threat to the homeland has entered a new era. Key adversaries Russia and China have deployed and continue to advance a range of capabilities to hold the homeland at risk with nuclear, conventional, and cyberspace weapons, believing it to be an effective means of offsetting Western military advantages and limiting our options in a crisis. These adversaries are also increasingly willing to challenge the United States in the international arena and take actions below the level of armed conflict to erode our global influence. While our adversaries seek to avoid a direct military conflict with the United States, their growing assertiveness increases the risk of miscalculation and gives rise to a threat environment more complex and dynamic than we have seen since the end of the Cold War.

Our adversaries have spent the last 30 years observing our global military operations and forming strategies to negate our conventional military advantages, especially the foundational benefits afforded by our strategic deterrent. A key element of our adversaries' strategy is to develop and demonstrate increasing capabilities to hold the homeland at risk below the nuclear threshold and in multiple domains, believing a credible threat to our homeland will undermine

our diplomats' ability to negotiate from a position of strength and degrade our ability to project military force from our homeland into other theaters.

Russia

Over the last decade, Russia has sought to influence the security environment by developing and deploying conventionally armed cruise missiles capable of reaching targets in the homeland. Russia has spent considerable money and effort to develop a new generation of highly precise cruise missiles that Russian leaders believe will be a credible means of threatening unacceptable damage on our homeland during a conflict. Having demonstrated the utility of these weapons during combat operations in Syria, the Russian military is now working to modernize their air- and sea-based launch platforms.

The Russian air force modernized five BEAR H heavy bombers in 2019, according to the country's Defense Minister, upgrading the aircraft's communications and navigation systems and enabling them to launch the new AS-23 cruise missile. The minister claimed that Russia's heavy bomber force conducted 48 air patrols in 2019 "to ensure a military presence in strategically important areas." Several of these flights approached the homeland and were intercepted by NORAD fighters. The Russian air force demonstrated new levels of cooperation with international partners, including the first-ever deployment of BLACKJACK heavy bombers to South Africa in October and an unprecedented combined air patrol with Chinese medium bombers over the Sea of Japan in July. The Russian air force has announced that its goals for 2020 include the modernization of an additional six BEAR-H bombers and a return to Cold War-era readiness levels for its heavy bomber fleet.

The Russian navy also expanded its operations of cruise-missile capable platforms in 2019, both on and below the ocean surface. In October, foreign press reported that multiple

Russian submarines conducted an exercise in the North Atlantic intended to practice penetrating the West's anti-submarine barrier between Greenland and the United Kingdom. Also in October, President Putin oversaw the Grom-2019 strategic command-staff exercise, which featured live launches of advanced cruise missiles by Russia's heavy bombers and its most capable naval platforms like the Severodvinsk multi-role submarine and the Admiral Gorshkov guided missile frigate. Earlier in the year, the Gorshkov deployed to the Caribbean Sea and made a port call in Havana, well within land-attack cruise missile range of the southeastern United States. President Putin announced in December that Russia plans to double its number of cruise missile-capable vessels by 2023.

Meanwhile, 2019 also saw continued expansion of Russia's military infrastructure in the Arctic. Throughout the year, Russia lengthened existing runways and built new ones at multiple airfields in the high north. In September, Russia deployed a Bastion coastal defense cruise missile unit to the Chukotka Peninsula, opposite the Bering Sea from Alaska, for a first-ever training launch from that region. The missile successfully struck a sea-based target more than 200 kilometers away, according to the Russian Defense Ministry. When deployed to the Russian northeast, this system has the capability not only to control access to the Arctic through the Bering Strait, but also to strike land targets in parts of Alaska with little to no warning.

Finally, Russia continues to modernize its strategic nuclear forces, which it views as the ultimate means to guarantee its sovereignty and survival. Russia made significant progress in 2019 on several of the "invincible" weapons that President Putin unveiled to the world during a landmark March 2018 speech depicting Russia's response to U.S. missile defense developments. In April, Russia launched the experimental Belgorod submarine, which is intended to serve as the launch platform for the Poseidon transoceanic nuclear torpedo. Despite a deadly accident in

August, Russia also continued development work on the extremely long-range Burevestnik nuclear-powered and nuclear-armed cruise missile. In December, a Russian general announced that the Kinzhal air-launched ballistic missile had been placed on "experimental combat duty" in the Russian Arctic. Also in December, Russia announced that its first regiment of Avangard-equipped intercontinental ballistic missiles (ICBMs) had assumed alert duty, marking the world's first operational ICBM armed with a hypersonic glide vehicle payload designed to challenge our missile warning systems.

China

China's rapid military modernization and efforts to extend its military's global reach demonstrate a growing willingness to challenge the United States. Of particular concern to USNORTHCOM and NORAD, China is developing many of the same technologies that the Russians have deployed and may seek to hold portions of the homeland at risk with long-range, conventionally armed precision-strike weapons. In a future crisis, China could use these weapons—along with its world-class offensive cyber capabilities—to attack our logistics nodes in an attempt to frustrate our force flows across the Pacific.

In the meantime, China is also investing heavily to improve the survivability and penetrability of its nuclear forces in an effort to guarantee its ability to retaliate following a strategic first strike. Among the novel weapon systems China is testing is an intercontinental-range hypersonic glide vehicle—similar to the Russian Avangard—which is designed to fly at high speeds and low altitudes, complicating our ability to provide precise warning.

Like the Russians, China also continues to invest heavily in the Arctic, determined to exploit the region's economic and strategic potential as a self-proclaimed "near Arctic" nation. In the last few years, Chinese survey vessels have conducted several deployments to the Bering and

Chukchi Seas, providing familiarity and experience that could eventually translate to Chinese naval operations in the region.

Finally, in the past year we have observed signs of a nascent but growing strategic cooperation between China and Russia—including the combined bomber patrol last July and Chinese participation in multiple Russian exercises.

North Korea

Kim Jong Un has demonstrated the capability to threaten the U.S. homeland with nuclear-armed ICBMs. In 2017, North Korea successfully tested an apparent thermonuclear weapon as well as two ICBM designs capable of ranging most or all of North America—feats only the five permanent members of the UN Security Council had previously achieved.

Following North Korea's last ICBM test in November 2017, Kim declared that the country had completed the research and development phase of its strategic weapons program and would now begin serial production and deployment of these new systems. In the last year, North Korea has tested several new short-range missile systems, demonstrating advancing technologies that could eventually be incorporated into its strategic systems.

During the December 2019 plenary meeting of North Korea's ruling Workers' Party Central Committee, Kim stated it was time for North Korea to take offensive measures to ensure the sovereignty and security of the country and claimed that he would soon unveil a new strategic weapon. While Kim did not specify what this new weapon would be, recent engine testing suggests North Korea may be prepared to flight test an even more capable ICBM design that could enhance Kim's ability to threaten our homeland during a crisis or conflict.

Iran

The Iranian regime has grown increasingly brazen in its strategic competition with the United States, as demonstrated by the ballistic missile attacks on Iraqi military bases hosting U.S. personnel in Iraq in January 2020. While Iran is not currently able to strike our homeland with strategic weapons, it has expended significant resources on ballistic missile and space-launch capabilities and could develop an ICBM capable of ranging the contiguous United States quickly if its leaders chose to do so. In the meantime, Iran retains the ability to conduct attacks in our homeland via its terrorist proxies and its growing cyber capabilities.

Violent Extremist Organizations

Terrorists remain committed to attacking the United States, either directly or by inspiring homegrown violent extremists to act in their stead. Foreign terrorist groups—hardened by military experience in the Middle East—continue to adapt their tactics to identify and exploit seams in our security. Commercial aviation persists as a preferred target due to the high casualties and disproportionate economic impact that such attacks can engender.

Capable Defense—Credible Deterrence

The international security environment and the threats arrayed against our homeland have evolved extraordinarily quickly over a short period of time, and there is every reason to believe this trend will continue for the foreseeable future. Our adversaries have invested heavily in advanced weapons and highly capable delivery platforms, and they have shown indications of their intent to target our homeland if necessary to achieve their strategic objectives. In order to defend against these 21st century threats, our homeland defense enterprise must reflect the fact that the threats to the homeland have expanded beyond the violent extremist threat that led to USNORTHCOM's establishment. Both USNORTHCOM and NORAD have refocused our

efforts on deterring and defeating the complex nation-state threats and adversarial strategies that have eroded our military advantage, and our defense priorities should continue to evolve to stay ahead of current and emerging threats identified in the National Defense Strategy.

Our adversaries have the ability to threaten our homeland in multiple domains and from numerous avenues of approach. Whether an attack originates in cyberspace or from the physical approaches to the homeland, we cannot deter what we cannot defeat, and we cannot defeat that which we cannot detect. In order to effectively defend the homeland, USNORTHCOM and NORAD have developed a Homeland Defense Design (HDD) consisting of three main elements: a layered sensing grid for domain awareness, an adaptive architecture for joint all-domain command and control (JADC2), and new defeat mechanisms for advanced threats, including cruise missiles, ballistic missiles, hypersonic weapons, and small unmanned aerial systems. These three elements are vital to deterring and defeating advanced threats to the homeland, and USNORTHCOM and NORAD are moving with a sense of profound urgency to bring these capabilities into the fight.

Our need to improve our domain awareness begins with developing and integrating advanced sensors capable of detecting and tracking threats no matter where they originate. In order to defend the homeland in all domains, we need a sensing grid with undersea, maritime, land, air, near-space, space, and cyber layers that reach from the seafloor to outer space. These sensors must be able to detect, track, and discriminate advanced cruise missiles, ballistic missiles, hypersonics, and small unmanned aerial systems at the full ranges from which they are employed. The sensors must also detect and track the platforms—aircraft, ships, and submarines—that carry those weapons. A robust and resilient space layer is increasingly critical to provide the earliest possible detection and fidelity of data required.

Stovepiped transmission of data from non-compatible sensors presents a significant impediment to our ability to defend against advanced threats. To overcome this issue, we need a robust architecture for JADC2 to effectively gather data from a myriad of sensors across all domains and share it seamlessly. The architecture must facilitate rapid data fusion, processing, and analytics to feed decision makers at all levels with accurate, decision-quality information at the speed of relevance. Data from any sensor should feed any defeat mechanism, and rapid data fusion and analysis should provide faster, more precise solutions to all shooters. This architecture will facilitate high-tempo decision cycles for agile, resilient, redundant, and joint command and control. By leveraging a cloud architecture, big data analytics, edge computing, artificial intelligence, and machine learning, this network should sense a threat from one node and engage it precisely and expeditiously from another across vast distances and across all domains.

Finally, we require new defeat mechanisms for cruise missiles, ballistic missiles, hypersonics, and small unmanned aerial systems. As adversary threat systems, employment doctrine, and operational competencies become more numerous, multi-modal, and complex, our current defeat mechanisms will become increasingly challenged. Additionally, the cost ratio of adversary threat missiles to our missile defeat mechanisms is not in our favor. We must flip the cost ratio back in our favor with deep magazine, rapid fire, and low-cost defeat mechanisms.

Homeland Defense in the Digital Age: Leveraging American Ingenuity

Given the number and complexity of threat systems arrayed against the homeland today, we cannot afford the prohibitive costs or extensive time required to develop high-end, custom built, stove-piped systems provided through current acquisition practices. Instead, USNORTHCOM and NORAD have fundamentally changed how our commands engage with defense and commercial industry, and we are proactively seeking out and collaborating with

private-sector partners who offer innovative and viable solutions to our most immediate challenges.

Specifically, our commands are collaborating with large and small companies from the commercial tech sector in order to leverage emerging technologies and digital-age approaches with potential homeland defense applications. Under this iterative approach, our commands and our commercial partners have developed a common understanding of our shared challenges and opportunities over time. In turn, we are allowing our nation's innovators to apply their expertise and propose advanced, innovative solutions using new but proven technology that can be rapidly incorporated into the homeland defense ecosystem in order to improve our domain awareness, JADC2 architecture, and defeat mechanisms.

We are also adapting and evolving how we work with traditional U.S. defense industry. Rather than prescribing specific materiel solutions to the challenges facing our commands, USNORTHCOM and NORAD are engaged in ongoing two-way dialogue with defense industry innovators to share our perspective on the changing strategic environment, emerging threats to the homeland, and operational requirements. We are working with our industry partners to ensure they understand our specific challenges and needs. In turn, our partners are identifying ways to bring new and existing systems into the homeland defense architecture and provide tailored solutions to our unique challenges.

This approach has already shown game-changing potential. Over the last several months, USNORTHCOM and NORAD have collaborated with defense industry, commercial tech partners, and the military Services on successful field demonstrations of emerging sensor, information fusion, and satellite communications technologies. I am excited and encouraged by

the results of these demonstrations, and we will continue to lead these experiments and to solicit innovative proposals from established defense industry and emerging tech partners.

As we defend the homeland against complex threats in all domains, our commands absolutely understand that the status quo is not acceptable and that we must act now to build a capable defense that provides a credible deterrent. In an age of rapidly advancing technology, rising strategic competition, and extraordinary innovation, we simply cannot afford to rely on antiquated technology and outdated approaches. To reverse our eroding military advantage, we are bringing new thinking, new approaches, and new technologies to bear against our adversaries in order to defend our nation and our way of life.

Thanks to the ingenuity and innovation of American defense industry, our nation has fielded the most advanced and capable military in the world. The technical challenges we currently face are significant, but the extraordinary advancements in global commercial logistics and communications over the last decade are clear evidence those challenges are not insurmountable. USNORTHCOM and NORAD will remain engaged with our defense and commercial industry partners to address our most pressing challenges in ways that are proven, adaptable, and affordable.

Cruise Missile Defense

In concert in the National Defense Strategy, homeland defense is the number one priority and focus of USNORTHCOM and NORAD. Advanced cruise missiles now carried by Russian aircraft and submarines present a growing challenge to our current sensor networks and have the range and accuracy to strike military and civilian targets throughout the United States and Canada. As a result, our two commands are actively working to improve our ability to detect, track, and defeat potential cruise missile attacks against the homeland.

At my direction, USNORTHCOM and NORAD have shifted substantial manpower to this critical effort. With the cruise missile threat at the forefront of our minds, our commands are working closely with industry partners to develop a layered sensing grid, build an adaptive architecture for JADC2, and field advanced defeat mechanisms.

Investments in improving our CMD capabilities are necessary to defend our vital facilities and infrastructure, preserve our national ability to project power abroad, and help to safeguard our citizens and vital institutions. We do not need a force field over the entire nation, but we also cannot present a soft target. We need a sufficiently capable steady-state defense to present a credible deterrent.

And, because the same cruise missiles that hold targets in the United States at risk also threaten our bases, personnel, and allies overseas, improving our defenses at home will have far-reaching impacts both in the homeland and for our forces, allies, and partners abroad. Aligning our defense investments with the stated priorities of the National Defense Strategy will profoundly improve our ability to defend our citizens and our way of life while strengthening each of the elements of our national power.

This is not the first time that a peer competitor has elected to hold our homeland at risk. Early in NORAD's history, when nuclear-armed Soviet bombers first presented an existential threat to the United States and Canada, our nations faced down that daunting challenge by establishing the Distant Early Warning line of radars and the Semi-Automatic Ground Environment (SAGE) command and control system in less than three years. That stunning achievement demonstrated the power of shared resolve and innovation by our great nations and had an immediate deterrent effect. We hear echoes of that era in today's strategic environment,

and while the challenges before us are significant, history makes clear that innovation and resolve will allow us to bolster our strategic advantage.

While I am concerned by the limitations of some of our older sensors, recent advancements show great promise toward improving our ability to detect, track, and defeat advanced cruise missiles. In one key example, USNORTHCOM and NORAD partnered with the U.S. Air Force, U.S. Navy, U.S. Army, U.S. Marine Corps, and industry in December 2019 at Eglin AFB, Florida, on a demonstration that successfully showcased elements of JADC2 and the Advanced Battle Management System for cruise missile defense of the U.S. homeland.

Thanks to the outstanding support and collaboration by each of the Services, we were able to bring air, sea, and land domain forces together to demonstrate technology with significant potential for meeting our most urgent homeland defense requirements. USNORTHCOM and NORAD will continue to build on the momentum established with our Service partners so that we are capable of deterring, detecting, and defeating any potential threat to the homeland.

Specifically, the demonstration combined capabilities from across the Joint Force to detect, track, identify, and simulate the intercept of ground and air-launched subsonic cruise missiles. While still in the early stages of development, these efforts also demonstrated an "every sensor, fused data, best shooter capability" that incorporates machine learning and artificial intelligence to gather and act upon sensor data far more quickly and accurately than ever before.

By demonstrating the potential for these low-cost, multi-domain systems to defend critical targets, USNORTHCOM and NORAD are actively establishing and pushing hard on efforts with innovative industry partners in ways that break down slow-moving stovepipes between warfighters, acquisition agencies, and industry. Together with our partners, USNORTHCOM and NORAD will continue to ensure that we have the means to fulfill our

essential homeland defense priorities and outpace the threats to our homeland by actively pursuing the National Defense Strategy objective to establish a national security innovation base that supports DOD operations and sustains security and solvency.

Our commands have taken an aggressive leadership role in identifying and evaluating potential solutions to the significant technical challenges associated with our cruise missile defense mission. Over the summer of 2019, USNORTHCOM and NORAD sponsored a test of over-the-horizon radar (OTHR) capabilities to evaluate their potential application to detect cruise missiles launched against the United States and Canada from the far north. This important test, conducted in close collaboration with the U.S. Air Force Research Laboratory and Defence Research and Development Canada, allowed USNORTHCOM and NORAD to evaluate the ways in which OTHR can help to provide persistent surveillance of our northern approaches.

The OTHR test, using test arrays in Ottawa, Ontario and at Camp Grafton, North Dakota demonstrated outstanding collaboration between our U.S. Air Force, Canadian military, and industry partners in a shared effort to mitigate the cruise missile threat to the United States and Canada. That same spirit of common commitment was on display in October 2019 during a USNORTHCOM-sponsored homeland defense demonstration at Ft. Carson, Colorado. This event successfully demonstrated the potential for a mesh network and artificial intelligence to detect, identify, and track a cruise missile threat in realistic field conditions.

The Arctic

The Arctic affords our adversaries a direct avenue of approach to the homeland and is representative of the changing strategic environment in our area of responsibility. More consistently navigable waters, mounting demand for natural resources, and Russia's military buildup in the region make the Arctic an immediate challenge for USNORTHCOM, NORAD,

our northern allies, and our neighboring geographic combatant commands, U.S. European Command and U.S. Indo-Pacific Command.

The Arctic is the new frontline of our homeland defense. Russia has steadily expanded its military presence in the region and, by fielding advanced, long-range cruise missiles—to include land attack missiles capable of striking the United States and Canada from Russian territory—Russia has left us with no choice but to improve our homeland defense capability and capacity. In the meantime, China has taken a number of incremental steps toward expanding its own Arctic presence. In turn, USNORTHCOM and NORAD are strengthening the four pillars of our defenses in the high north: domain awareness, communications, infrastructure improvement, and sustainable presence in our own Arctic territory.

I want to take this opportunity to thank the Congressional defense committees for your constant support as USNORTHCOM and NORAD have met our homeland defense challenges in the Arctic head-on. There are no easy solutions to the challenges presented by the extreme climate, terrain, and distances inherent in Arctic operations. However, due in no small measure to your continued attention and advocacy for our commands' requirements, we have seen significant attention, expertise, and resources brought to bear on the homeland defense mission in the Arctic from throughout the Department of Defense.

Over the last year, our commands have worked alongside the military Services and the Office of the Secretary of Defense to ensure that our warfighting requirements are met, with particular emphasis on improving joint domain awareness and communications. In order to reclaim our strategic advantage in the high north, it is critical that we improve our ability to detect and track surface vessels and aircraft in our Arctic approaches and establish more reliable secure communications for our joint force warfighters operating in the higher latitudes. This

focus is now apparent in the 2019 DOD Arctic Strategy, which reflects my command priorities and makes it clear that DOD must defend the homeland against threats emanating from our northern approaches.

As stated in the National Defense Strategy, a core Department of Defense objective is to ensure that common domains remain open and free. In pursuit of that objective, USNORTHCOM and NORAD are very proud of our work with allies and partners to improve our shared presence and interoperability in the region and update our information sharing agreements with our Arctic allies and partners. Of note in the last year, USNORTHCOM and NORAD leaders also conducted engagements with the Danish Joint Arctic Command in Greenland and joined the United Kingdom Ministry of Defense in direct staff talks. These collaborative efforts help to reaffirm our commitment to our international partners while enhancing USNORTHCOM and NORAD's defense capability.

We are leveraging the on-the-ground experience and expertise of our warfighters in USNORTHCOM's Alaska Command along with leaders, planners, and combatants from USINDOPACOM and USEUCOM as we prepare for ARCTIC EDGE 20—the nation's premier Arctic exercise. ARCTIC EDGE 20 will take full advantage of the unsurpassed capabilities of the Joint Pacific Alaska Range Complex (JPARC) and allow us to test our capability to fight, communicate, and win in the harsh terrain and climate of the high north. I am personally placing significant emphasis on this important exercise, as the lessons we learn from ARCTIC EDGE 20 will play an important role in validating the requirements that will allow us to deter, detect, and defeat potential adversaries along the front line of our nation's defenses.

Ballistic Missile Defense

USNORTHCOM's ballistic missile defense (BMD) mission remains a no-fail mission. North Korea continues to openly threaten the United States with nuclear-capable ICBMs, and it is essential that our ballistic missile defense system continues to provide a reliable and lethal defense against a potential missile attack by North Korea or Iran, should Iran decide to develop ICBM technology.

Fielding modernized radars capable of discriminating between a lethal warhead and the debris, non-lethal components, and potential countermeasures associated with an inbound ICBM remains my top BMD priority. Improved discrimination capability will provide a higher probability of intercept and, therefore will deliver greater confidence in the successful defeat of an inbound nuclear armed re-entry vehicle. Improved persistent discrimination capability is even more necessary given the cancellation of the Redesigned Kill Vehicle (RKV).

While I understand the issues that led to the August 2019 decision by the Missile Defense Agency (MDA) to cancel the RKV, and I ultimately concurred with that course of action, I want to make it clear that I am deeply concerned with the resulting delay in adding to our ground-based interceptor capability and capacity. As we progress toward a next-generation interceptor (NGI) capability, USNORTHCOM remains responsible for defending the homeland from missile attacks. It is therefore necessary to swiftly develop and field a lower-tier missile defense capability as a complement to NGI to intercept current and emerging missile threats. Given the nature of the ballistic missile threat, I am a strong advocate for bringing a layered capability on board for the warfighter well before NGI is fielded.

From a warfighter perspective, a reliable and lethal follow-on system must be fielded as soon as practicable as our adversaries continue to pursue advanced missile technologies to

threaten our homeland. I retain confidence in the current ground-based interceptor fleet and the ballistic missile defense system as a whole; however, to remain ahead of emerging threats, the timely fielding of improved discriminating sensor technology and an NGI is crucial. As our adversaries rapidly advance their capability and capacity to threaten the United States, USNORTHCOM is working side-by-side with MDA to ensure that USNORTHCOM's warfighter requirements are met, and I remain in close contact with VADM Hill to ensure our priorities remain aligned.

USNORTHCOM and NORAD's ability to accurately detect, discriminate, and track individual inbound ICBM warheads in the event of a ballistic missile attack from North Korea or potentially Iran is critical to the successful intercept of those weapons. With current and emerging threats in mind, improved terrestrial sensors are a necessary and cost-effective step in the evolution of our missile defense system. However, the urgency of taking steps now to develop and field a future space-based sensing layer as soon as technology allows cannot be overstated.

As cruise, ballistic, and hypersonic missile threats evolve at an extraordinarily rapid pace, space-based sensors will become a necessity in the near future, and as we have seen with other adversary threat technologies, we cannot wait until a new weapon system is in the field before starting work on new technology to mitigate that threat.

Countering Unmanned Aerial Systems

Events involving unmanned aerial systems in the Middle East, Venezuela, and the United Kingdom provide clear examples of how new technologies can be developed, proliferated, and exploited by nefarious actors much faster than our institutions can react. We must be prepared to defend our nation against potential threats from Unmanned Aerial Systems (UAS), but the

complexity and diversity of these recent attacks underscore the challenges of our homeland defense mission. This is a difficult problem set, one that will not be solved with simple, silver bullet solutions or in isolation. While USNORTHCOM and NORAD play a key role in interagency counter-UAS (C-UAS) efforts, actions to mitigate the threat have proven to be complex. Therefore, extensive collaboration and cooperation at all levels and across a wide range of agencies is critical to our shared success.

Only a few years after commercial drone technology became readily available in the commercial marketplace, small UAS (sUAS) are being employed in ways that test the seams in our physical defenses, legal authorities, and jurisdictional boundaries. The capabilities and authorities inherent to NORAD's aerospace warning mission enable us to provide our partners with increased airspace awareness, and we are striving to establish a common operating picture with our partners. By establishing real-time warning and information sharing between interagency partners, we will significantly increase our shared ability to limit a potential attacker from exploiting sUAS technology in an attack against the homeland.

Together with partners from inside and outside the Department of Defense, to include the Department of Homeland Security (DHS), the Department of Justice, the Office of the Director of National Intelligence, the Department of Transportation, and numerous other agencies in the United States and Canada, USNORTHCOM and NORAD is championing a whole-of-government approach to overcoming the potential threats presented by the nefarious use of UAS. Over the last year in particular, we have made significant progress toward leveraging existing DOD and DHS mitigation investments made possible by the enhanced authorities granted by Congress.

The expanded use of sUAS in the national airspace is inevitable and has clear benefits that exist alongside ways in which this emerging technology can be exploited to cause harm. With those parallel facts in mind, we, along with all of our interagency partners, are fundamentally committed to improving our collective capability to defend our citizens and infrastructure from being targeted by sUAS, without compromising safety, civil liberties, or legitimate commercial enterprise.

Defense Support of Civil Authorities

Nested under our homeland defense responsibilities, USNORTHCOM provides for the safety and support of our citizens through our defense support of the civil authorities mission. Acting in support of lead federal agencies following disasters, such as during the response to Hurricane Dorian in the eastern United States, allows USNORTHCOM to demonstrate our resilience and test our response to unplanned domestic contingencies. These include natural disaster relief efforts or following a manmade disaster such as an attack by a peer adversary or a terrorist organization. When circumstances overcome the abilities of federal, state, or local public safety officials to respond effectively—and when we are asked to help—USNORTHCOM is prepared to provide trained, ready, and capable active duty forces when and wherever they are needed to protect the life, health, and safety of our citizens and neighbors.

Hurricane Dorian's impact on The Bahamas was nothing short of devastating, and USNORTHCOM was proud to support the U.S. Agency for International Development (USAID) and our Bahamian partners by providing defense coordinating officials, strategic airlift, and rotary wing airlift in the early days following the storm. Working in support of USAID, the Command and our Service partners were able to expedite the deployment of military and non-governmental organization relief personnel and equipment to Abaco.

Although this was the first time that USNORTHCOM has directly supported a USAID-led relief effort, we and our interagency partners were able to build on lessons learned from previous disaster relief and recovery efforts. Those hard-earned lessons, in turn, ensured that the correct mix of assets and personnel were ready to deploy as soon as they were requested by The Bahamian government.

Homeland defense and homeland security are inseparable, and USNORTHCOM also recognizes the significance of our work and relationships with our DHS partners. USNORTHCOM's role in synchronizing DOD's support to Customs and Border Protection (CBP) on the southwest border has helped to increase the level of coordination and cooperation at all levels of our organizations. That mission has bolstered USNORTHCOM's relationship with our partners throughout the DHS enterprise, and the shared lessons learned have led us to adopt new tactics, techniques, and procedures that have improved communications and interoperability up and down our chains of command. These improvements will continue to pay dividends for future USNORTHCOM and DHS collaborative efforts. For example, in 2020, USNORTHCOM will join DHS in a national exercise that will assess our collective response to a cyber event, and we will continue to prioritize our work with DHS to defend our citizens, infrastructure and vital institutions.

Over the last year, USNORTHCOM has continued to provide military-unique capabilities to federal law enforcement, including operations and intelligence along the southwest border and supporting federal prosecutors' case development with counter-threat finance analysts. With 69,000 overdose deaths in 2018, illegal drugs are just one of many revenue streams for the cartels that present a significant threat to the health and safety of our citizens. USNORTHCOM supports these efforts to stem the flow of illicit narcotics and other illicit commodities into our

country. We are also working with non-DOD partners across the U.S. interagency community and in Mexico to develop a whole-of-government strategy to counter transnational organized crime.

Supporting Cyber Defense in the Homeland

In addition to the physical risks posed by natural disasters and potential kinetic strikes, our nation faces ongoing significant threats in the cyber domain. Our adversaries—including state and non-state actors—continue to actively target military networks, civilian critical infrastructure, and our democratic processes through network-based intrusions. USNORTHCOM places a high priority on our active and vital role in supporting DHS, U.S. Cyber Command (USCYBERCOM), and other government partners in the defense of U.S. critical infrastructure.

In January 2019, USNORTHCOM welcomed the command's first liaison officer from the newly established DHS Cybersecurity and Infrastructure Security Agency (CISA) into our headquarters as it stood up on day one. Meanwhile, USNORTHCOM assigned two of our cybersecurity experts to serve as liaison officers in the CISA Integrated Operations Coordination Center (IOCC) and in the CISA headquarters in Washington, D.C. The establishment of these liaisons immediately led to a significant improvement in interagency communications and information sharing, as our collective experts have been able to identify and remedy communications stovepipes and bureaucratic obstacles to timely exchanges of intelligence and other key information.

As part of the whole-of-government effort to ensure that our elections are free from foreign interference, USNORTHCOM is working closely with DHS, the Office of the Secretary of Defense, USCYBERCOM, and the National Guard Bureau to support DHS if needed to

defend critical elections cyber infrastructure. On request, USNORTHCOM is prepared to provide the expertise of these network specialists to DHS as the lead federal agency.

Cyber attacks and attempts by our adversaries to penetrate our nation's sensitive networks continue at an extraordinary pace. If successful, these intrusions could result in significant harm to our national security. The collective efforts by USNORTHCOM and our partners to improve the security and resiliency of our critical networks and infrastructure is moving forward rapidly in order to remain well ahead of our adversaries efforts. Due in large part to the lines of communication that have been opened by our collaborative efforts with CISA, USNORTHCOM now participates in daily secure synchronization events with the CISA IOCC. This ensures that we and our DHS partners are sharing the very latest intelligence, indicators, and threat assessments regarding past and potential attacks on U.S. military and civilian critical infrastructure.

In December 2019, USNORTHCOM hosted a cyber forum that brought together USNORTHCOM, NORAD, and DHS leaders, CDRUSCYBERCOM GEN Paul Nakasone, The Adjutants General from 51 states and territories, alongside partners from numerous other federal agencies and the intelligence community in order to ensure that our respective commands, departments, and agencies are aligned and ready to defend our networks, critical infrastructure, and our democratic processes. These complex technical efforts are made possible by detailed planning, year-round coordination, and close personal interaction with our interagency partners at every level. While USNORTHCOM is not in the lead for these missions, we are proud to support our federal partners and to help coordinate DOD efforts to the fullest extent possible.

Theater Security Cooperation

Defending the homeland and advancing our strategic objectives requires strong relationships with our military partners throughout our area of responsibility, and USNORTHCOM continues to enjoy close collaboration and mutually beneficial ties with our partners in Canada, Mexico, and The Bahamas. In this era of great power competition, each of our international partners faces significant and complex challenges that can only be mitigated through open and frequent communications and a shared commitment to identifying common security objectives and implementing measures that strengthen individual national defenses while contributing to enhanced regional security.

The strong relationships we share with each of our international partners provide a range of benefits for the entire region, enhancing domain awareness along our northern and southern approaches, and impeding the ability of transnational criminal organizations to transport illicit drugs and smuggle migrants into the United States. The training, equipment, and other defensive capabilities provided through USNORTHCOM's theater security cooperation initiatives have direct, tangible benefits for our partners and for the safety and security of the United States by providing effects-based capabilities to reduce illicit trafficking from Mexico and The Bahamas. In one key effort, USNORTHCOM was proud to support our Mexican partners' fight against the drug cartels by delivering a radar to Hermosillo, Mexico that immediately improved the government of Mexico's ability to monitor air trafficking routes, forcing the cartels to change their tactics and procedures.

In September 2019, I was joined by CDRUSSOUTHCOM, Admiral Craig Faller, as we met with the secretaries of Secretariat of the Navy (SEMAR) and Secretariat of National Defense (SEDENA) in Mexico City to emphasize our shared commitment to regional security

cooperation. Following that productive engagement, ADM Faller and I traveled together into USSOUTHCOM's area of responsibility to tour the northern border of Guatemala. That boots-on-the-ground experience provided a valuable firsthand understanding of the security challenges and opportunities that exist along the rugged international border and in the seams between USNORTHCOM and USSOUTHCOM operational boundaries. The visit highlighted the importance of frequent, open communication between USNORTHCOM and our partners—to include our sister combatant commands—in order to ensure that we are operating from the same set of expectations in pursuit of common strategic objectives.

Partnerships

Our homeland defense mission relies on strong, ongoing collaboration between our commands and a long list of DOD, DHS, and federal interagency partners. With that fact firmly in mind, USNORTHCOM and NORAD are constantly working to increase integration with our partners, from the initial phases of the planning process to the execution of missions that invariably cross over geographic and jurisdictional boundaries—and frequently across warfighting domains.

Our adversaries have demonstrated their ability to exploit our institutional boundaries. These threats are deliberately designed to take advantage of the existing seams across combatant commands, federal agencies, and their associated legal authorities. We recognize that we cannot wait until a contingency plan is finalized to fill in those seams; it is essential that we collaborate across the national security enterprise to develop playbooks that prevent those seams from forming from the outset.

For example, NORAD's maritime and aerospace warning missions require tightly knit collaboration with U.S. European Command, U.S. Pacific Command, U.S. Strategic Command,

the intelligence community, the U.S. Coast Guard, and a host of others to ensure we have constant, global situational awareness of potential threats, from ballistic missile launches to out-of-area deployments by Russian and Chinese aircraft, submarines, and surface vessels. USNORTHCOM and NORAD are then able to make notifications, deploy forces, and implement contingency plans as necessary.

Given the realities of today's security environment, we no longer view issues as purely regional. Global integration is at the forefront of our planning efforts, and alongside our fellow combatant commanders, USNORTHCOM and NORAD have worked diligently to reduce the seams, stovepipes, and outdated mindsets that previously hampered communication and coordination between DOD partners. In 2019, USNORTHCOM and NORAD, our sister combatant commands, and DOD senior leaders participated in a globally integrated exercise that placed a strong focus on threats to the homeland and illustrated how the successful execution of the homeland defense mission underpins our combat missions abroad. I am optimistic that the valuable lessons learned from this event will inform our planning, budgeting, and future plans and exercises for years to come.

Conclusion

As we enter a new decade, USNORTHCOM and NORAD remain laser focused on defending the homeland. Working side by side with our DOD, federal, industry, and international partners, our commands are committed to protecting our nations, our citizens, and our way of life from threats in all domains. The challenges facing us are daunting, but our adversaries and allies alike should never doubt our resolve.

While the weapons that threaten our homeland today are stealthier and more precise than those we faced during the Cold War, the hard-earned lessons of the past continue to echo today.

The spirit of innovation and shared commitment to a common cause that brought our nation safely through previous conflicts will serve us well again during this period of strategic competition and uncertainty. Guided by our history of shared commitment and sacrifice, honored by the trust our citizens have placed in us, and profoundly committed to our sacred responsibility, the men and women of USNORTHCOM and NORAD are ready to deter and defeat any threat.

It is my profound honor to lead the airmen, soldiers, sailors, Marines, Coast Guardsmen, and civilians of USNORTHCOM and NORAD, and on their behalf, I want to thank the Committee for your steadfast support of our essential mission.

We Have the Watch.

PREPARED STATEMENT BY ADMIRAL CHARLES A. RICHARD, USN, COMMANDER, UNITED STATES STRATEGIC COMMAND

UNCLASSIFIED

SENATE COMMITTEE ON ARMED SERVICES

STATEMENT OF
CHARLES A. RICHARD
COMMANDER
UNITED STATES STRATEGIC COMMAND
BEFORE THE
SENATE COMMITTEE ON ARMED SERVICES
13 FEBRUARY 2020

INTRODUCTION

USSTRATCOM is a global warfighting command, and I am privileged to lead the 150,000 Sailors, Soldiers, Airmen, Marines, and Civilians who dedicate themselves to the Department of Defense's highest priority mission. I thank the President, Secretary of Defense, and Chairman of the Joint Chiefs for their confidence in me to lead this Command and the Department's nuclear enterprise. I also thank Congress for their continued support, which ensures USSTRATCOM has the required resources necessary to continue providing our Nation's strategic deterrence.

Commander, USSTRATCOM, as a key enabler and contributor to Joint Force operations, is the combatant commander responsible for Strategic Deterrence; Nuclear Operations; Global Strike; Joint Electromagnetic Spectrum Operations; Missile Defense; Analysis and Targeting; and Missile Threat Assessment. To execute our assigned responsibilities, the men and women of this Command operate globally across all domains, to include the information environment. We work closely with the Joint Force across organizations, and with our Allies and partners to address the strategic challenges facing our Nation. Our mission: To deter strategic attack and employ forces, as directed, to guarantee the security of our Nation, our Allies, and our partners.

The Command's priorities are: 1) above all else, we will provide strategic deterrence for the Nation and assurance of the same to our Allies and partners; 2) if deterrence fails, we are prepared to deliver a decisive response, decisive in every possible way; and 3) we will do this with a resilient, equipped, and trained combat-ready force. A powerful, ready triad; a survivable nuclear command, control, and communications (NC3) system; and a responsive nuclear weapons infrastructure are the foundation that enables strategic deterrence and assurance which is fundamental to our survival as a Nation, and deters adversaries from conducting nuclear and non-nuclear strategic attacks against our Nation, our Allies, and our partners.

The dedicated professionals working for and with USSTRATCOM allow the Command to execute its operations and provide the Nation with its strategic deterrent against threats in all domains. Without the men and women of USSTRATCOM, actively performing the deterrence mission every day, we could not deter potential adversaries and guarantee the freedoms our Nation holds dear.

To be clear, nuclear deterrence is the highest priority mission of the Department of Defense – our deterrent underwrites every U.S. military operation around the world and is the foundation and backstop of our national defense.

The ability of the United States to deter threats to our Nation and our Allies is at a critical point. The contemporary security environment is the most challenging since the Cold War. In the nuclear dimension, we face a range of potential adversaries, each with different interests, objectives, and capabilities. To maintain a credible deterrent in this environment requires us to modernize and

recapitalize our strategic forces to ensure our Nation has the capability to deter any actor, at any level. Doing so requires we remain committed to modernizing and recapitalizing our strategic forces and supporting infrastructure, and that we continue to pursue the supplemental nuclear capabilities intended to address new challenges in the security environment.

A visible symbol of our commitment to nuclear modernization is the recently completed General Curtis LeMay Command and Control Facility (C2F) at USSTRATCOM. The C2F is one of the most advanced weapon systems ever constructed, and will be a critical element for the integration of global intelligence, nuclear planning, and operations with other combatant commands in coordination with our national leadership. Its modern infrastructure for Command and Control of strategic forces provides the flexibility for effective oversight and clear direction in a new era of global, integrated operations.

We must proceed with modernization. Sustainment and modernization of our nuclear forces has transitioned from something that we should do to something that we must do. Continuing to maintain the Nation's strategic deterrent needed to meet the challenges of the global security environment and to realize Presidential and Departmental guidance defined by the National Defense Strategy (NDS), National Military Strategy (NMS), and Nuclear Posture Review (NPR) requires continued Congressional support, budget stability, and on-time appropriations.

GLOBAL SECURITY ENVIRONMENT

The NDS's prioritization of great power competition is the impetus for increasing lethality, strengthening alliances and partnerships, and reforming the Department in an increasingly complex global environment. It addresses the changing nature of threats to the United States. Competitors, such as China and Russia, are developing advanced capabilities to directly challenge our strengths across all domains. USSTRATCOM is committed to fulfilling our NDS requirements and searching out innovative ways to understand the environment and adapt to the challenges presented in the global security environment.

We understand competition does not equal conflict, and war does not have to be an inevitable conclusion in an era of great power competition. However, we must be responsive to the increasing desire for state and non-state actors to reshape the world in their favor, doing so at the expense to the security of our Nation, our Allies, and our partners, and accepted international norms and rules. We must be capable of recognizing and communicating the potential for adversarial actors who use forces in any domain to coerce, undermine, or erode the current rules-based order.

CHINA

China is advancing a comprehensive modernization program for the People's Liberation Army (PLA) and is building a robust, lethal force with capabilities spanning all domains, the electromagnetic

spectrum, and the information environment. These initiatives increase China's ability to project power further from their mainland and support their aspirations to impose China's will throughout the Indo-Pacific region. Beijing's military modernization supports longstanding goals to establish regional hegemony, deny U.S. power projection operations in the Indo-Pacific, and supplant the U.S. as the security partner of choice.

China continues to expand and increase its strategic force capabilities. Despite maintaining a "No First Use" policy, China's lack of transparency regarding its modernization efforts to increase regional capabilities and to expand its overall arsenal bring its motives and intent into question. Among questions about Chinese intentions is their drive to likely double the size of their nuclear stockpile by the end of the decade. The PLA's range of new systems that complement its growing nuclear stockpile includes developing a survivable nuclear triad, counter-intervention, and power projection capabilities to deter and deny foreign regional force projection in the Indo-Pacific. The PLA's Air Force (PLAAF) newly reassigned nuclear mission, and a deployment of a strategic bomber would provide China with its first credible nuclear triad. During the 70th Anniversary Parade in October 2019, the PLA unveiled new strategic nuclear systems, including the H-6N BADGER bomber, DF-41 intercontinental ballistic missile (ICBM), DF-17 medium-range ballistic missile, and improved submarine-launched ballistic missiles (SLBM). Other advanced systems include a range of ballistic missile defense technologies and increased anti-access/area denial operations. Finally, the PLA is developing a space-based early warning capability and more sophisticated command and control (C2) systems to safeguard the integrity of a larger, more dispersed force. Collectively, Chinese improvements to its nuclear capabilities raise troubling concerns and underscore the need to press on with modernizing our nuclear forces, including the supplemental capabilities outlined in the NPR.

Our Nation, and our Allies and partners, should not accept Chinese policies or actions that threaten the international rules-based order or undermine regional and global stability. We must remain postured to counter Chinese coercion and subversion, assure our regional Allies and partners, and protect our national security interests as international law allows.

RUSSIA

Russia seeks to regain its role as a world power and erode U.S. leadership in world affairs. Russia continues to pursue a sphere of influence over the states on its periphery and attempts to dictate the parameters of those states' sovereignty, especially regarding matters of security or economics. Russian military doctrine emphasizes the potential coercive and military uses of nuclear weapons and Russia fields advanced capabilities to achieve these objectives. Moreover, Russian doctrine and rhetoric

highlights a willingness to use nuclear weapons first, perhaps in an attempt to terminate a conventional conflict on terms acceptable to Russia.

Russia's aggressive and robust military and nuclear modernization campaign across its strategic triad and dual-use systems is close to completion. To date, Russia has recapitalized 76 percent of its strategic nuclear forces with modern weapons and equipment, strengthening its overall combat potential. It is easier to list the nuclear weapons and equipment Russia has not modernized, than it is to describe their all new equipment and capabilities. Upgrades to existing strategic forces include updating the Tu-95MS BEAR strategic bomber and Kh-101/102 long-range, air-launched cruise missiles; building and deploying the DOLGORUKIY-class SSBN platform for the BULAVA SS-N-32 SLBM; replacing silo-based and mobile ICBMs with newer systems and increased warhead upload capacity; and fielding the Avangard Hypersonic Glide Vehicle. In addition to modernization efforts, Russia is embracing new and novel technologies such as the TSIRKON hypersonic anti-ship missile, Belgorod submarine, nuclear capable Poseidon unmanned underwater vehicle, Kalibr land-attack cruise missile, Kinzhal air-launched ballistic missile, and Skyfall nuclear powered intercontinental cruise missile. These advanced dual-capable systems are specifically designed to challenge U.S. and Allied deterrent structures and target our capabilities.

Over the past decade, Moscow has not only emphasized strategic forces preparedness, but also endeavored to enhance Russia's civil defense readiness for strategic conflict, and has conducted exercises geared towards increasing interoperability between civil and military organizations in a time of war. Additionally, both Russia and China appear to be expanding their strategic partnership in the Asia/Pacific Region. Last summer, this partnership went on display through a combined out-of-area (OOA) flight. Their joint efforts continue to erode transparency and predictability, use force to achieve their goals, undermine rules-based international order, and violate the sovereignty and territorial integrity of their neighbors.

Russia's nuclear forces include a range of strategic weapons, some not captured by existing arms control structures, and theater and tactical nuclear weapons entirely outside the arms control framework. Due to Russia's refusal to submit these theater (or non-strategic) systems to arms control limits or transparency initiatives, a considerable level of uncertainty clouds judgements on the scope and disposition of Russia's stockpile. However, Russia's overall nuclear stockpile is likely to grow significantly over the next decade – growth driven primarily by a projected increase in Russia's non-strategic nuclear weapons. Russia's determined pursuit of "non-strategic" nuclear weapons, together with their recent theory of nuclear rhetoric, indicates a troubling readiness to resort to nuclear weapons early in a crisis. Accordingly, our nuclear forces must include a sufficient range of capabilities such that

Russia never mistakenly perceives any advantage from using nuclear weapons, at any threshold of violence.

NORTH KOREA AND IRAN

North Korea continues to defy international norms and conducts malign activities to foster regional instability. North Korea has tested ICBM-class missiles designed to reach the United States and has increased the number of short and medium-range ballistic missiles in its inventory. USSTRATCOM is committed to supporting the Department's efforts to work with like-minded regional partners to reduce military tensions and support our diplomats in achieving the final, fully verified denuclearization of North Korea.

Iran remains the world's leading sponsor of terror. By arming and utilizing proxy forces with advanced conventional weapons, Iran threatens our Nation and our partners in the region. Iran relies on its missile forces as a tool for signaling, propaganda, and retaliation, as observed through violation of the 2015 Joint Comprehensive Plan of Action (JCPOA), and further illustrated by last month's ballistic missile launches against airbases in Iraq. Additionally, Iran continues to retain the technological capability and capacity to develop a nuclear weapon within one year of a decision to do so. Iran continues to ready and develop long-range ballistic missile capabilities, coupled with an aggressive strategy to destabilize the Middle East; calling into question Iran's commitment to foregoing nuclear weapons. Iran's actions introduce greater risk to an already volatile environment and threatens global commerce, security, and stability.

We remain vigilant to the threats both North Korea and Iran pose to the United States, our Allies and partners, and support on-going international and whole-of-government approaches to reduce these threats.

INTEGRATED STRATEGIC DETERRENCE

The 21st century global security environment presents challenges to deterrence. Competitors are conducting subversive actions below the levels of traditional conflict across all domains. Additionally, our adversaries are integrating nuclear, conventional, space, electromagnetic spectrum, and cyber capabilities to form an unprecedented range of threats; this includes the exploitation of the potential threat of nuclear employment to shape our response to their actions.

In a new era of warfighting, traditional Cold War deterrence concepts may be insufficient to deter the full range of threats in the modern security environment. The United States must apply tailored deterrent strategies to specific adversaries, while integrating the full spectrum of our military capabilities, both nuclear and conventional, with all elements of U.S. national power. An integrated strategic

deterrence concept must leverage and exploit information advantage to seek long-term gains and capabilities in response to advancing threats; and fully assess the risks associated with deterrence failure.

To address 21st century challenges, integration cannot stop within our government. Building and maintaining our relationships are critical to preserving shared interests and responding to mutual threats. The Command continues to engage with Allies and partners to strengthen relationships, build trust, and set conditions across the globe.

USSTRATCOM supported seventeen senior-level international engagements in 2019, including visits to the United Kingdom, Denmark, and Canada as well as visits from the United Kingdom, Denmark, Japan, Australia, the Republic of Korea, and 32 Defense Attachés through the International Visitor Leadership Program (IVLP). Our daily interactions with our Allies and partners coupled with Bomber Task Force (BTF) deployments, submarine port-calls and visits, and cooperative missile defense activities provide unique opportunities to strengthen relationships, build trust between our senior leaders, and increase the interoperability of our forces. The Command also hosted an annual Deterrence Symposium to exchange viewpoints on security challenges; senior political, military, and academic leaders from over 13 nations attended this event.

To facilitate these interactions, Headquarters USSTRATCOM hosts permanently assigned liaison officers from Australia, Canada, Denmark, the Republic of Korea, and the United Kingdom; and our Joint Functional Component Command for Integrated Missile Defense hosts a liaison officer from Germany. These Foreign Liaison Officers serve as a conduit between the Command and their nations' militaries. To the extent possible, liaison officers and their superiors participate in our Tier 1 globally integrated exercises, offering mutual benefits to our Allies and the United States. These peacetime engagements develop relationships before a crisis. This past year's successes have included funding secure communication infrastructure compatibility, defining operational relationships, enhancing our military interoperability, improving combined capabilities across our Allies and partners, and integrating critical defense missions to assure Allies and partners of our Nation's extended deterrence commitments and non-proliferation objectives.

GLOBALLY INTEGRATED OPERATIONS

Globally integrated operations remain essential to achieving defense objectives in this era of great power competition. The worldwide dispersal of friendly and adversarial forces create both opportunities and challenges. As a Joint Force, we must continue to work with our Allies and partners across geographic and warfighting boundaries to create security advantages. Additionally, the Joint Force must increase proficiency in employing global capabilities - space, cyber, and special operations forces - hand-in-hand with traditional air, land, and sea warfighting capabilities. The essence of globally

integrated operations is the alignment of the Joint Force in purpose, time, and tempo regardless of which commander is responsible for execution; this is particularly important for execution of the strategic deterrence mission where the operations and activities of combatant commanders significantly affect deterrence success. Investments in cross-combatant command coordination are vital. There is also a temporal aspect to global integration; the ability of operational commanders to gain warfighting advantages depends on enacting decisions faster than our adversaries. In the last year, the Joint Force has made enormous strides in implementing the Secretary's vision for global integration, but we must continue on the path to defend the Nation's interests in the 21st century.

NUCLEAR OPERATIONS

USSTRATCOM bears the responsibility for operating our Nation's nuclear triad. The Nation's nuclear triad is safe, secure, and effective; and is foundational to our survival. It remains the greatest contributor to deterring adversaries from conducting nuclear and non-nuclear strategic attacks against our Nation, and our Allies and partners. However, the Nation is at a critical juncture regarding the future of our nuclear forces. Since the end of the Cold War, we led the world in reducing our nuclear stockpile while increasing transparency. While we reduced the number and types of nuclear weapons in our arsenal, our adversaries went in the other direction and continued to modernize and expand their strategic capabilities. We now find ourselves fielding a reduced Cold War era arsenal against a larger, more modern, and more varied Russian force and a continually improving and growing Chinese force. If we do not address 2018 NPR recommendations, this will create the potential for insufficient flexibility in the triad to impose costs and deter all potential conventional and nuclear threats in the early-2030s.

For the last three decades, we have anticipated reaching a tipping point in the nuclear weapons complex. That point is almost here. Our weapons, NC3, and triad delivery systems will soon reach retirement or require refurbishment. If we do not invest smartly and consistently in our nuclear enterprise now, we will need to rebuild from scratch the talent and infrastructure required to design the deterrent forces for our Nation's future needs. As the foundation for deterrence for our Nation, Allies, and partners, we must continue to sustain, modernize, and recapitalize our Nation's strategic nuclear capabilities. Previous de-emphasis on our nuclear deterrent and the infrastructure that supports it, coupled with a changing security environment, coupled with adversaries that are modernizing and creating increasingly capable forces, has led us to the point where we must modernize now to continue to maintain a viable deterrent in the future. We appreciate that Congress has recognized the importance of modernizing U.S. nuclear forces after decades of deferred recapitalization and has funded these programs. We request your continued support to modernize and sustain our Nation's nuclear deterrent.

LAND-BASED STRATEGIC DETERRENT

USSTRATCOM's geographically dispersed ICBM force is the most responsive leg of the triad, continuing to deliver a highly reliable, secure deterrent capability and an overwhelming challenge to defeat. While the Minuteman has served as the backbone of our Nation's ICBM force since 1962, its aging infrastructure, and asset attrition require a comprehensive weapon system replacement beginning in 2028. The Air Force remains focused on sustaining our ICBM force at the lowest reasonable cost. The Ground Based Strategic Deterrent (GBSD) Analysis of Alternatives provided decisive analysis that continued life extension of the Minuteman III (MM III) would be more costly than a replacement system and would not address future challenges and threats to our current ICBM force. GBSD is the lowest risk, highest value decision to meet current and future military requirements.

USSTRATCOM supports the ongoing MM III sustainment programs needed to keep the weapon system viable and effective until GBSD reaches full operational capability in 2036. Smart, consistent sustainment of our current missile systems, while we modernize the ICBM force, will ensure an effective deterrent remains for many decades. GBSD is a just-in-time replacement program, and we cannot afford to have the MM III weapon system deteriorate prematurely.

The GBSD program completes the Technology Maturation and Risk Reduction (TMRR) phase in FY2020 and transitions to Engineering and Manufacturing Development (EMD) following a successful Milestone B decision this year. USSTRATCOM remains firmly committed to GBSD as the Air Force pursues mature, low-risk technologies, modularity, and open system standards to enable affordable technology insertion. On-time GBSD deployment remains a USSTRATCOM imperative; we must keep requirements stable and protect existing schedule margin or where possible, expand these schedule margins.

GBSD, when fielded, will be an affordable, modern weapon system, deployed in updated infrastructure and fully integrated into a modernized NC3 system. Our ICBMs, and prospectively the GBSD, raise the threshold of an adversary's attack on the homeland by presenting an intractable targeting problem. Eliminating our ICBM capability, and specifically the GBSD, would be dangerously provocative, present a less credible strategic threat, and grant adversaries a vastly reduced target set – raising the risk to our Nation of a disabling first strike. Thus, USSTRATCOM strongly supports the Air Force in providing GBSD to ensure our deterrent remains effective and lethal in an ever-changing and increasingly threatening strategic environment.

AIR-BASED STRATEGIC DETERRENT

The bomber leg of the nuclear triad is the most flexible and visible aspect of our Nation's nuclear forces. Through their discernable adaptability, bombers continue to provide a wide variety of deterrence

options to the President and unambiguously signal unwavering resolve to our adversaries. Additionally, their persistence and reliability of our bomber force reassures our Allies and partners. Nevertheless, current bombers and associated weapon systems are beyond or quickly approaching their intended end of service life and require sustainment to remain operational and modernization to address evolving and emerging threats.

The B-52 remains the backbone of the bomber force and will remain in service for an additional 30 years. It serves as an important hedge against delays in our future bomber programs and is a key component of the Nation's triad. To remain effective, the B-52 must receive several critical upgrades. First, the B-52's Commercial Engine Replacement Program will replace the existing TF-33 engines (1960s era) that are becoming increasingly unsupportable, and will also yield increased fuel efficiency resulting in greater range, longer flight times, and reduced tanker requirements. In addition to new engines, modernization plans are underway to upgrade the B-52's radar, avionics, and NC3 systems, which must remain on schedule to meet the operational requirements of our airborne deterrent requirement.

The B-2 is the only long-range, penetrating stealth bomber in the world. It is imperative we maintain the B-2's unique deterrent and combat capability, until replaced by the B-21. Decisions on the future bomber force structure and key enablers must be based upon strategic imperatives and combat effectiveness, ensuring no capability gaps for critical tasking across the family of operational plans (nuclear and conventional).

The future of the bomber force is the B-21 Raider. Designed to meet NDS objectives and based on firm requirements leveraging existing and mature technology, the B-21 will deliver unrivaled combat capability. It is an Air Force "Top 3" acquisition program with a planned procurement of at least 100 aircraft and is currently executing in the EMD acquisition phase. The B-21 will utilize both direct attack and standoff weapons, providing a multitude of options to the warfighter to meet national objectives. It is critical the Air Force delivers the B-21 on time and on budget to meet the Nation's deterrence objectives and global security requirements.

In addition to the bombers, the air delivered weapon stockpile modernization is also occurring through just-in-time Life Extension Programs (LEPs). Notably, the Long Range Standoff (LRSO) weapon coupled with the W80-4 warhead will replace the Air Launched Cruise Missile (ALCM) and its W80-1 warhead as that system faces reliability and sustainability challenges. Likewise, the B61-12 will replace aging B61 nuclear gravity bombs deployed on strategic long-range bombers and on our Nation's and Allies' Dual Capable Aircraft (DCA). The B61-12 life extension includes a guided tail kit assembly to improve weapon accuracy, enabling a more accurate, single gravity nuclear weapon capability that will enhance our Nation's nuclear deterrent and the extended deterrence provided to our Allies and partners.

The success of all bomber missions depends on adequate tanker support to achieve the necessary global reach to hold strategic targets at risk. The KC-46, currently in the Initial Operational Testing and Evaluation (IOT&E) acquisition phase, will partially replace the aging KC-135 fleet. Air Force leadership continues to engage with Boeing to ensure the new tanker will meet operational objectives.

SEA-BASED STRATEGIC DETERRENT

The OHIO-class SSBN with the highly capable Trident II D5 ballistic missile constitutes the most survivable leg of our nuclear triad and provides a reliable deterrent to our adversaries around the world. The SSBN's ability to operate continuously and clandestinely sends a very clear message that our adversaries cannot benefit from a strategic attack against the U.S. or our Allies.

The OHIO-class SSBN is a marvel of technology and its robust design, along with a comprehensive maintenance program, has allowed it to be life extended from 30 to 42 years – longer than any previous submarine class in U.S. history. The Navy has never kept a single submarine in service longer than 37-years, let alone an entire class. There is no margin to extend the OHIO-class further; therefore, the COLUMBIA-class SSBN must field on time to avoid a capability gap in the triad. It is essential we maintain our technological advantage in this critical mission, and to this end, the Navy has designated COLUMBIA as the top shipbuilding priority in order to ensure its first strategic deterrent patrol in FY2031. As production begins, we must support our industrial partners' expansion of both infrastructure and training programs to minimize risk.

Furthermore, to remain survivable, we must address anticipated security threats that could undermine our own future capabilities. Advancements in Russian submarine stealth and detection requires us to remain committed to the recapitalization of our Integrated Undersea Surveillance System (IUSS) to preserve our advantage in the undersea domain.

Following the decision to extend the OHIO-class SSBN, the Navy determined the need to life-extend the Trident II D5 ballistic missile, both to address obsolescence issues and to ensure the required quantity of deployable ballistic missiles into the early 2040s. The life extension program, known as D5LE, will ultimately serve as the transition missile from OHIO to COLUMBIA. Additionally, efforts are underway to further extend the D5 missile through the life of the COLUMBIA with the D5LE2 program. D5LE2 will recapitalize the D5, using highly reliable components still in production, pull forward previously unused system margin, and provide a more cost effective design with sufficient flexibility to account for evolving threats. In order to realize these capabilities, we must revive an atrophied industrial base required to produce critical non-nuclear components employed on the D5LE2.

To enhance the flexibility and responsiveness of our nuclear forces as directed in the 2018 NPR, we will pursue two supplemental capabilities to existing U.S. nuclear forces: a low-yield SLBM warhead

(W76-2) capability and a modern nuclear sea launched cruise missile (SLCM-N) to address regional deterrence challenges that have resulted from increasing Russian and Chinese nuclear capabilities. These supplemental capabilities are necessary to correct any misperception an adversary can escalate their way to victory, and ensure our ability to provide a strategic deterrent. Russia's increased reliance on non-treaty accountable strategic and theater nuclear weapons and evolving doctrine of limited first-use in a regional conflict, give evidence of the increased possibility of Russia's employment of nuclear weapons. We must counter these dangerous perceptions with the supplemental capabilities the LYBM and SLCM-N will provide. An analysis of alternatives is under way for SLCM-N.

NUCLEAR WEAPONS AND SUPPORTING INFRASTRUCTURE

Today's nuclear stockpile meets current operational and policy requirements. While the stockpile and its supporting infrastructure are safe, secure, reliable, and effective, both remain fragile. Many of our weapons have remained in service well beyond their original design lives, owing to the robustness of original designs and the Department of Energy/National Nuclear Security Administration's (DOE/NNSA) continuing stockpile stewardship efforts. However, the accumulation of concurrent risks and capacity margins limit the ability to mitigate adverse impacts to the deterrent. Insufficient resourcing over the past 30+ years postponed much-needed weapon and infrastructure modernization programs, which typically require 10-15 years to execute. Directive policy changes affecting priorities and inefficient program execution across administrations have directly contributed to the related erosion in the critical capabilities and capacity of our strategic deterrent forces. As a result, many of the modernization and sustainment efforts necessary to ensure the deterrent's viability have zero schedule margin and are late-to-need.

I firmly support the Secretary's and Chairman's public statements identifying nuclear deterrence as the highest priority mission of the Department of Defense. Our nuclear deterrent underwrites every U.S. military operation around the world and is the foundation and backstop of our national defense. I cannot overemphasize the need to modernize our nuclear forces and recapitalize the supporting infrastructure to ensure we can maintain this deterrent in the future. I am concerned that the oft-repeated message of the need to modernize and recapitalize has lost its impact, and that collectively we have underestimated the risks associated with such a complex and time-constrained modernization and recapitalization effort. Even seemingly small issues can have a disproportionate impact on the force. We cannot afford more delays and uncertainty in delivering capabilities, and must maintain a focus on revitalizing our nuclear forces and the associated infrastructure.

The 2018 NPR described a hedging strategy to meet future risks and unexpected challenges. The atrophy in our nuclear weapons supporting infrastructure is consuming our hedge for avoidable programmatic risk. We no longer have hedge capacity to fully account for geopolitical risk, technological

risk, or operational risk. Continued modernization and sustainment work deferral will only further exacerbate an already untenable situation as we repeatedly extend weapon lifetimes and do not invest in the diagnostic capabilities needed to ensure confidence in the viability of these systems.

To maintain military effectiveness in the future, we must execute the program of record (POR) immediately, and invest in advanced diagnostic, research, and development activities to mature emerging technologies to certify and field a modern deterrent for the 21st century. The next generation of deterrent forces must encompass responsive weapon systems, world-class personnel, resilient infrastructure, and intelligence informed decisions. We must address emerging 21st century threats that may reduce the effectiveness of our nuclear deterrent force.

The NNSA took efforts in 2019 to address a gap identified in the 2018 NPR by converting a small number of W76-1s into the W76-2 low-yield variant. W76-2 deliveries to the Navy and remaining production are continuing as scheduled in FY2020. In 2019, our weapon modernization programs saw a setback when reliability issues emerged with commercial off-the-shelf non-nuclear components intended for the W88 Alteration 370 program and the B61-12 LEP. NNSA has worked closely with DoD to mitigate impacts, but correcting these issues will delay initial fielding of both systems. Finally, another just-in-time program is the W80-4 LEP, which remains in synchronized development with the LRSO delivery system. It is critical for this standoff attack capability program to remain on track.

While air-delivered weapon modernization is proceeding in the B61-12 and W80-4, we must begin efforts now to modernize ballistic missile warheads for our ICBM and SLBM force in the 2030s and 2040s. After the 2018 NPR, re-evaluation of our stockpile strategy shifted to pursue separate NEP designs for the Air Force and Navy. However, the ballistic missile end-state remains the same: address known and projected aging and performance concerns; preserve triad attributes; balance warhead types across the force; and improve inter- and intra-leg hedge capability. The Air Force is developing the MK21A/W87-1 to replace the W78 ICBM warhead that will be over 50 years old when finally retired. When deployed, the W87-1 will provide enhanced safety and security compared to all other ballistic missile warheads.

The Nuclear Weapons Council has established a requirement for the W93/Mk7 warhead. This warhead will provide USSTRATCOM and the Navy a means to address evolving ballistic missile warhead modernization requirements, improve operational effectiveness, and mitigate technical, operational, and programmatic risk in the sea-leg of the triad. This effort will also support a parallel Replacement Warhead Program in the United Kingdom whose nuclear deterrent plays an absolutely vital role in NATO's overall defense posture. Without a coordinated, joint effort to develop and field the W93/MK7 as a system, the bulk of our day-to-day deterrent force will be at increased risk in the early 2040s due to aging legacy systems. Given the potential severity of impacts on overall deterrence from

late delivery of the W93/MK7, it is imperative the complex work to identify opportunities to accelerate the development timeline and invest in technologies to reduce schedule risk. Research and development efforts for critical national capabilities, such as fuzes and aero shells, must begin immediately to deliver a capability in the 2030s that maintains a credible at-sea deterrent through the 2050s and beyond.

Our present Nuclear Security Enterprise (NSE) infrastructure, which we count on to sustain our strategic deterrent, continues to atrophy and requires timely recapitalization. NNSA planned facility improvements to critical capabilities will not materialize in the near-term, yet facility age and capacities currently limit our ability to timely respond to unforeseen technical, geopolitical, programmatic, or operational developments. The non-nuclear component issue affecting the B61-12 LEP and W88 Alteration 370 program is a symptom of a fragile enterprise – a single component failure caused a disruption across multiple programs for a period of years. USSTRATCOM is able to mitigate the operational impacts today, but proposed steps to reduce accumulating further operational impacts provide a partial capability at best. The Nuclear Weapons Council Strategic Plan, NNSA Stockpile Stewardship and Management Plan, and 2020 Requirements and Planning Document describe a path forward to enable an effective, responsive, and resilient NSE, but successful navigation of the path will only be possible through continued on-time investments.

USSTRATCOM supports NNSA's highest infrastructure priority to reconstitute plutonium pit production. Since the closure of the Rocky Flats facility 30 years ago, no significant quantities of new pits have been added to the stockpile. The Nation must be able to produce no fewer than 30 pits per year in 2026 and produce at least 80 pits per year during 2030 to maintain stockpile effectiveness. This capacity is the minimum required to execute the POR; anything less will force difficult decisions on which modernization programs to defer, which could result in a less-capable nuclear deterrent, and accept unprecedented pit ages. The NNSA's two-site plan to achieve plutonium pit production at Los Alamos National Lab and the Savannah River Site is prudent and necessary to achieve pit production requirements rather than accept pit lifetimes that threaten the confidence in our weapons' capabilities. Failure to accomplish these goals will place all future stockpile modernization programs at risk.

In addition to plutonium pit production, the NSE must continue to recapitalize capabilities to process uranium and lithium, produce tritium, manufacture and procure trusted radiation-hardened microelectronics, and manufacture non-nuclear components in sufficient quantities to sustain and modernize the force. Production of nuclear weapon components and the materials needed to construct them effectively stopped during the 1990s when we began to life-extend legacy systems. This includes recruiting and developing the specialized workforce and experts required to produce and maintain these systems. Maintaining a safe, secure, reliable, and effective strategic deterrent into the future requires restoring or increasing the capacity of these material, component, and workforce capabilities.

Congressional legislation has recognized and supported the need for an effective, responsive, and resilient NSE by directing the NNSA to continually exercise all capabilities required to conceptualize, develop, engineer, certify, and deploy nuclear weapons. The Stockpile Responsiveness Program (SRP), combined with the POR and its supporting science program, enables a process to exercise the development of nuclear weapons. I remain supportive of the program, especially activities like the rapid design-to-test experiment, which cuts time from clean-sheet design to hydrodynamic test by two-thirds.

Maintaining a safe, secure, reliable, and effective stockpile that continues to meet its intended deterrence and assurance roles into the future will require consistent, predictable funding for weapons modernization and the supporting infrastructure over the next two decades. Failure to make this investment presents an existential risk to the Nation. Success hinges on continued coordination between DoD and NNSA as well as the consistent cooperation among all stakeholders.

NUCLEAR WEAPONS SAFETY AND SECURITY

Our nuclear security standard is complete denial of unauthorized access to nuclear weapons. We have worked closely with our Navy and Air Force partners to assess nuclear security requirements and adjust our force posture, training, and equipment to address current and evolving threats. While we continue to advance our security capabilities, there are areas where additional investments are necessary to maintain the high standards this mission demands.

The proliferation, ease of use, and sophisticated capabilities of small, unmanned aircraft systems (sUAS) pose a threat to our operations. The Department continues to field counter sUAS capabilities and are refining tactics, techniques, and procedures to address the developing threat. Focused leadership, vigilance, and dedicated investment are necessary to remain ahead of this challenge.

With intense advocacy from our Command and strong support from Congress, we achieved a significant ICBM security milestone with the Air Force awarding a contract to replace our Vietnam-era UH-1N helicopter fleet with the new MH-139 “Grey Wolf.” The Air Force expects delivery of the first two aircraft to Eglin AFB in 2020 for developmental testing. Delivery of subsequent aircraft to each missile wing will provide full operational capability by FY2027. With this program moving forward, we can now focus our efforts on replacing aging armored security vehicles with Joint Light Tactical Vehicles, equipped with advanced weapons and communications systems that will provide security personnel uninterrupted situational awareness anywhere they operate.

Finally, we encourage Congress to continue supporting our ICBM Transportation and Handling equipment. The Payload Transporter Replacement and Transporter Erector Replacement Programs will provide safe, secure MM III solid rocket motor (SRM) transport, removal, and emplacement, and over the coming years, these heavily tasked force enablers will facilitate the transition from MM III to GBSD. We

continue to support fully funding the weapons security programs for on-time delivery, enhancing the security of our strategic weapons and our vast ICBM complex.

NUCLEAR COMMAND, CONTROL, & COMMUNICATIONS ENTERPRISE

Our layered approach to providing NC3 capabilities remains reliable and effective in our current strategic environment; however, we have identified challenges in the near-term to address maintaining deterrence in the coming decades. Our posture and capabilities were adequate for the Cold War needs, especially against the Soviet-era ballistic missile and bomber threats. Now, we face improved adversarial capabilities in air- and sea-launched cruise missiles and evolving space and cyber threats. We must look beyond traditional ballistic missile profiles and understand the full spectrum of threats to NC3. We must innovate and outpace those threats to maintain our deterrent capabilities. Our continued focus is to maintain positive command and control of U.S. nuclear forces at all times, before, during, and after a nuclear attack. As we modernize our triad, we must maintain current capabilities while we address future NC3 requirements. This is one of my top priorities.

In October 2018, the Secretary of Defense designated the Commander, USSTRATCOM, as the NC3 Enterprise Lead responsible for NC3 enterprise operations, requirements, and systems engineering and integration. Last year, USSTRATCOM established the NC3 Enterprise Center (NEC) and started building relationships with the Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)) as the NC3 Capability Portfolio Manager (CPM). In the effort to consolidate authorities and responsibilities for the NC3 portfolio, we jointly presented the status of the NC3 Enterprise to the Deputy Secretary of Defense and the Chairman of the Joint Chiefs of Staff; this will reoccur on a continual basis as directed by the Secretary of Defense.

USD(A&S) and the Commander, USSTRATCOM, coordinated and recommended adjustments for our most pressing NC3 shortfalls. We support fully funding our approach to quantitatively assessing the NC3 enterprise. While an understandably complex and ambitious undertaking, we want to be able to model and monitor the entire enterprise. Data science is quickly proving its value to industry and we need to leverage this capability and implement it into our approach to assess the NC3 Enterprise's mutually supportive, interdependent architecture. Additionally, in order to move forward, we must provide the necessary manpower to build enterprise level capabilities.

Last year we saw success in validating the mission need statement for the next generation NC3 architecture. We are continuing to build out processes and supporting capabilities that will be foundational to establishing an architecture that is mutually supportive and resilient to the entire spectrum of attacks. While we develop the next generation NC3 to conduct nuclear command and control (NC2) over assured communication paths, we must consider how NC2 infrastructure will align and interoperate

with the future Joint All-Domain Command and Control (JADC2) structure. Future NC3 architecture will retain elements specific to NC2 while leveraging JADC2 to maintain resilient and redundant C2 and facilitate quick decision cycles.

In order to provide continuous communications and control of nuclear forces between the President, senior advisors, and Joint Forces, we must maintain our Advanced Extremely High Frequency (AEHF) satellites, paired with ground and airborne Family of Advanced Beyond Line of Sight Terminals (FAB-T). We continue to develop the plan for the next generation of airborne command and control aircraft, replacing the legacy E-4B National Airborne Operations Center (NAOC), E-6B Airborne Command Post (ABNCP) and Take Charge and Move-Out (TACAMO), and C-32 Executive Transport fleets. Existing capabilities will need to retain their current roles and may need to accept new ones as our next generation of NC3 takes shape. As we build on our airborne communication capabilities, we are evaluating the relay capabilities of ground forces to augment and enhance the survivability and endurance of our airborne layer. The Air Force's Global Aircrew Strategic Network Terminal (G-ASNT) gives our ground forces a multi-band communications system to maintain situational awareness and relay direction to nuclear forces not in direct contact with decision makers.

Cutting across all of these capabilities is the cyber defense of the systems themselves. Our NC2 hardware infrastructure fails if the NC3 fails due to a cyber-attack. We must continue to invest in active, persistent cyber defense of our NC3 systems, both current and future. We have collaborated with USCYBERCOM, USD(A&S), and the Services to ensure our existing NC3 systems remain free of adversary influence in real time and to protect our future NC3 acquisitions and sustainment from cyber threats. Cyber defense is not a "trade space" discussion; it is an additive necessity in today's technology-centric world.

USSTRATCOM, as the NC3 Enterprise lead, will continue to develop the Enterprise's future requirements and ensure a safe, secure, and reliable architecture for the future. As we move towards the next generation of NC3, we must work with industry to rapidly prototype new technologies and experiment with them to determine their effectiveness. In addition, we will continue cooperation on NATO NC3 systems that require modernization to enable appropriate consultations and effective nuclear operations, improve survivability, resilience, and flexibility. We need to move rapidly and if a new technology appears promising, acquire and field it quickly – and if our experiment shows it is not feasible, to "fail fast," and move on. We rely on the necessary resources for sustainment and modernization of NC3 systems. We must also attract the right experience and talent needed to fulfill enterprise manpower requirements to develop the innovative NC3 solutions described in the NC3 Enterprise Center Mission Needs Statement. A combined effort between the Services and Agencies, National Labs, industry, and academia are necessary to generate innovative ideas, establish working

relationships with key stakeholders, and maintain deterrence during this transition. I am confident in the forming relationships and the direction the Department is taking to prioritize NC3 modernization.

GLOBAL STRIKE

Strategic competitors continue to invest in and rapidly develop anti-access/area denial capabilities to counter U.S. military advantages in power projection and freedom of movement. Additionally, competitors are developing hypersonic weapons as part of this counter-intervention strategy. The Department requires flexible, prompt, survivable response options for global strike. Continued investment and a commitment to fielding advanced capabilities are crucial to offset these threats and ensure our deterrence and conventional power remains strong into the future.

Offensive hypersonic strike weapons will provide conventional capabilities to ensure the Joint Force can deter aggression in contested environments short of nuclear use. They provide a highly responsive, long-range, conventional strike capability for distant, defended, or time-critical threats when other forces are unavailable or not preferred. Fielding advanced hypersonic capabilities will allow us to tailor our strategies and plans with an expanded range of conventional options. While not a replacement for nuclear weapons, new classes of hypersonic weapons will complement and enhance strategic deterrence and can deliver surgical strikes to provide effects or be integrated into larger campaigns, increasing the effectiveness of our warfighting advantages.

For more than a decade, the U.S. matured its hypersonic strike technologies and successfully demonstrated their significance to future warfighters. FY2020 represents a pivotal year for hypersonic weapon development and fielding as the Department begins aggressively flight testing capabilities across multiple domains and posturing the industrial base to produce these systems at scale to allow the Services to field operational capabilities in the near-term. A flexible mix of capabilities launched from land, sea, and air will provide a constant, visible, and global presence designed to influence adversary behavior in all stages of conflict without crossing the nuclear threshold, and will provide an effective deterrent and strike capability in the near-term to address current and future threats.

MISSILE DEFENSE

As a global warfighting command, Commander, USSTRATCOM is the coordinating authority and is responsible for global missile defense planning in coordination with other combatant commands, Services, and agencies that employ our Nation's missile defense capabilities. USSTRATCOM's Joint Functional Component Command for Integrated Missile Defense (JFCC-IMD) supports missile defense operations worldwide: this means helping to identify and minimize gaps and seams in regional planning,

conducting missile defense operations support, and advocating for capabilities on behalf of all other combatant commanders.

While current missile defense capabilities ensure defense of the homeland against a rogue ballistic missile threat, a concerted U.S. effort is required to expand and improve existing capabilities for both homeland and regional missile defense. Potential adversaries are improving existing missile system capabilities and capacities, blurring missile defense operations across traditional regional boundaries. Solving the trans-regional threat, increased range, and lethality requires more than just active missile defense; we must address the problem of decreased warning and adjust defensive postures appropriately. Navigating this environment requires a comprehensive approach that establishes a renewed emphasis on leveraging opportunities to negate missile threats prior to launch, during all phases of flight, and after impact, drawing on effects generated from capabilities throughout all domains.

As the warfighter advocate for missile defense, USSTRATCOM must focus developers on examining, developing, and exploiting advanced concepts and technologies. Research and development across all domains is key to ensuring we keep pace with evolving adversary threats, such as hypersonic weapons and cruise missiles. Future space-based sensors may be able to provide birth-to-death detection, tracking, and discrimination of hypersonic glide vehicle, cruise missile, and ballistic missile threats globally. These abilities cannot be fully achieved with the current or future terrestrial-based radar architecture due to the constraints of geography and characteristics of future missile threats.

Our regional missile defenses protect against missile attacks on deployed U.S. forces, Allies, and partners; assist Allies and partners in better defending themselves; preserve freedom of action; and counter adversary anti-access/area denial tactics. However, challenges remain to the Department's efforts to fully integrate and optimize limited defense resources and architectures through Allied and partner integration and interoperability. USSTRATCOM's NIMBLE TITAN exercise series, with participants from 24 countries and four international organizations, advances multinational collaboration through the experimentation of operational integration concepts to enhance deterrence and defense against missile attacks.

The Ground Based Interceptors (GBI) currently emplaced have the capability of defending the homeland from today's rogue threat. Although we are pursuing development of the Next Generation Interceptor (NGI) to complement our GBI capability, we need to examine new approaches to defeat ICBMs in ways that repurpose existing options and are cost effective. As we address future threats, we must account for the air and missile defense assets required to defend the homeland, while simultaneously improving our regional security architectures. We continue to embrace new and developing technologies and find innovative ways to use, as well as repurposing existing technologies to strengthen and expand

current capabilities. Examples include developing an underlay for homeland defense to account for ballistic missiles and using existing sensors for tracking ballistic, hypersonic, and cruise missile threats.

The 2019 Missile Defense Review (MDR) provided an opportunity to conduct focused reviews clarifying and optimizing missile defense roles and responsibilities across the Department. In accordance with the MDR, the Department is reviewing policy, responsibilities, and procedures for missile defense research, development, test and evaluation, procurement, operations, and sustainment. Revised improvements to the Warfighter Involvement Process (WIP) will meet 2019 MDR guidance, align with Department budget process and maximize warfighter input in capability development and acquisition, and seeks to deliver missile defense capabilities in a timely manner. USSTRATCOM is working with the community of interest to update the WIP and incorporate findings established in the MDR. As Commander, I will continue to advocate for missile defense requirements through continued capability and utility assessments and by ensuring operational tests and evaluations meet warfighter demands. Missile defense endures as a critical component of comprehensive U.S. strategic and tailored regional deterrence strategies and is a key element of any integrated response options.

JOINT ELECTROMAGNETIC SPECTRUM OPERATIONS (JEMSO)

The Electromagnetic Spectrum (EMS) is the one physical maneuver space depended upon by forces across all warfighting domains. If we cannot achieve EMS superiority and assure access to the EMS, the joint force cannot prevail. Our adversaries have observed our use and dependence on the EMS, and have developed and organized their forces to achieve EMS superiority; it is essential we develop capabilities and appropriately organize to counter this threat. Achieving and maintaining EMS superiority is the critical enabler for successful Joint Force operations.

To address warfighter requirements, USSTRATCOM collaborates with the Secretary of Defense Electromagnetic Spectrum Operations (EMSO) Cross Functional Team, the Electronic Warfare Executive Committee (EW EXCOM), the Services, the DoD Chief Information Officer (CIO), the joint staff, and Under Secretary of Defense offices to advocate for essential warfighter EMSO capabilities. Additionally, we engage with Australia and North Atlantic Treaty Organization partners to ensure compatible JEMSO doctrine, capabilities, and concepts of operation.

USSTRATCOM led the effort to create the first Joint Publication for JEMSO. Working with DoD CIO and Defense Information Systems Agency (DISA), USSTRATCOM provided the initial warfighter requirements for an Electromagnetic Battle Management (EMBM) system to achieve EMS superiority. In coordination with the DISA Defense Spectrum Organization, USSTRATCOM is establishing the initial Joint Electromagnetic Spectrum Information Analysis and Fusion capability that will provide spectrum specific data for battle management and combatant command operational cells.

So that being the case, we will go ahead and just start with questions. I only have one that I really wanted to get to. I talked to both of you guys on other occasions about this, but what we ran up against—and this was kind of a surprise to a lot of us—the NNSA's [National Nuclear Security Administration] primary job is to build the nuclear warheads to meet the requirements of the Department of Defense (DOD). Earlier this year when we heard that the NNSA budget had been cut, we called the DOD and asked them what they thought, and to my surprise, when I got a hold of them, they said they did not know because they do not get it until after such time as—actually I think Energy gets it first, and so they did not have it. I am not sure how it happened.

Then I went back and I have talked to you folks about it. What are you really able to do if you do not hear about what the budget is before it is already signed off or in the process of being concluded? That is something we have a concern about.

Then it reminded me back when I was first elected—and that was when David Boren had this job, and he called me. I remember this. This was way back in 1994. He called me up and he said, well, Inhofe, there is something I have been trying to get done for a long time and I failed. Maybe you can do it, and it was correcting this very problem that we are pointing out right now. So we may be addressing this.

So the question I would ask you is do you agree this thing ought to be changed. You got to be in on this thing to know—you remember what we did earlier this year. We had to go in and talk to the President because they had dropped the budget down about 8 percent on NNSA, and nobody was aware of it except the Department of Energy. So we went and talked to the President and had a meeting, and we brought it back up to just under the 20 figure. So that is what happened there.

Do the two of you agree that this is something that needs to be corrected after all these years?

Admiral RICHARD. Senator, one, I applaud yours and the Committee's leadership in addressing the necessary resources for the nuclear weapons complex. That, along with nuclear command and control and recapitalization of the triad systems, are essential for maintaining strategic deterrence, which is foundational to everything else we do inside the Defense Department.

Chairman, you are well aware of the responsibility of the Nuclear Weapons Council to certify NNSA's budget, and I have a role in providing a recommendation to the Nuclear Weapons Council to that end.

Chairman INHOFE. Okay.

Admiral RICHARD. If there are weaknesses—and you described one—in terms of our ability in a timely manner to do that, that is something that I will take up with the Secretary to address how we might be able to do that better.

Chairman INHOFE. Why do we not do this for the record? We will just start this discussion going and not try to do it under the timelines we are dealing with today.

So I will go ahead. I had one other area to bring up. Last summer, the Missile Defense Agency canceled their program to modernize the ground-based interceptors that were up in Alaska due to

technical failures. The next generation interceptor, then, we find will not likely be fielded until 2030. I think that would be a good thing for you to answer on the record as to what about that gap, can we handle that gap, because everyone up here is going to be interested in that. Okay?

Senator REED. Well, thank you very much, Mr. Chairman.

Admiral Richard, I am terribly concerned that there has been no significant effort to extend the New START [Strategic Arms Reduction Treaty] agreement with Russia. Do you believe that New START treaty gives you critical value in planning strategic concerns based upon on-site inspections and deck relations, and if it is not extended, you will be at a disadvantage?

Admiral RICHARD. Senator, as you know, New START treaty has been valuable to this Nation and to my command. The Russians are largely compliant with it. It does have the benefit of not only limiting the total number of strategic weapons to both nations' benefit, and it has the transparency and confidence-building measures that you just described, all of which has been good for deterrence.

However, it does not address a very large class of weapons that the Russians have a significant advantage in. It does not constrain novel systems, and it is a bilateral treaty.

Ultimately a decision to extend a treaty is a political decision. I do provide best military advice down the lines of what I just offered to my department to contribute to that.

Senator REED. But if we do not do this, we will lose a great deal in terms of deterrence, in terms of, just as I mentioned previously, signaling for the first time in 40-plus years there is no arms control regime in the world, and that could lead to proliferation, not just eroded relationships between Russia and the United States.

Thank you, Admiral. I just want to—in the context of moving quickly.

General O'Shaughnessy, one of the issues that came up in our discussions and also in your testimony is the threat of cruise missiles to the United States. We are configured pretty well since the 1950s for ballistic missiles, but cruise missiles and other hypersonic weapon systems are more challenging.

Give us an idea of what you think you need to be effective to deal with this cruise missile threat.

General O'SHAUGHNESSY. Thank you, Senator, for highlighting that important threat that we have facing us today as a Nation and something that we really have to invest in in order to maintain our competitive advantage and our ability to defend this great Nation over time.

Specifically, I think as we look at the way we have been approaching the threats we have been looking and from the ballistic missile standpoint and then cruise missiles, kind of UASs—and I think we have to look at this more holistically, and really we need domain awareness over our entire territory and the approaches to it. Then if we are able to have that domain awareness with sensors from the undersea all the way up through space, we can then take that to be able to defend ourselves against all the threats, to include the cruise missile threat that you mentioned.

Some of the things that we are doing right now to get after that, as an example in this year's budget, we are increasing our domain

awareness capability with sensors within the National Capital Region. For example, with our wide area surveillance program, we have money this year for over the horizon radars that will not only be helpful for cruise missile threats but also hypersonic threats. We also have funding in place for some additional radars to give us the ability to truly see and understand the domain on the approaches to us.

But this is just a start. Senator, what I would say is we have to invest into the future in understanding what is happening in and around our territory and really understanding our ability to have defeat mechanisms that can defeat these proliferated threats such as the cruise missiles.

Senator REED. Thank you very much.

I yield back all my time.

[Laughter.]

Chairman INHOFE. Senator Fischer?

Senator FISCHER. Thank you, Mr. Chairman.

Admiral Richard, your opening statement refers to an increase in both Russian and Chinese nuclear forces. On page 4, it states that China is likely to double the size of their stockpile by the end of this decade. On page 5, it states that Russia's overall nuclear stockpile is, "likely to grow significantly over the next decade."

Does our current program of record for modernization expand our nuclear forces?

Admiral RICHARD. Senator, it does not. We do not seek parity. It is not only in the statement in terms of what they are going to do, we could also back up and look at what Russia in particular has been doing over the last 15 years to expand and modernize her arsenal, all while we just extended life-extended systems that we already have.

So the recapitalization that we are asking for is one-for-one. We do not seek more. We do not seek a greater number. We simply seek a sufficient number of capabilities to enable us to achieve national objectives.

Senator FISCHER. I have been struck by the reception that this budget has gotten. Earlier this week, a New York Times column summed up the budget's investment in nuclear modernization by saying, "the President's spending proposal requests money for a new arms race with Russia and with China and restores nuclear weapons as central to military policy."

The truth is actually the opposite of that. There is no policy change, as you stated, that relates to nuclear weapons in this budget, and it is Russia and China that are expanding their arsenals while we are not. Is that correct?

Admiral RICHARD. Senator, I must confess the whole concept that we are starting an arms race baffles me in terms of no nation has done more than the United States to reduce the reliance on nuclear weapons. No nation has divested more nuclear weapons than the United States has. We have waited 15 years in some cases to the absolute limits of what our systems will go before we simply sought to replace like for like inside our triad. So I do not understand where the concept of an arms race comes in, and you are absolutely correct, ma'am.

Senator FISCHER. Thank you.

On page 12 of your prepared remarks, you state, "our nuclear deterrent underwrites every U.S. military operation around the world and is the foundation and backstop of our national defense. I cannot overemphasize the need to modernize our nuclear forces and recapitalize the supporting infrastructure to ensure we can maintain this deterrent in the future. I am concerned that the oft-repeated message of the need to modernize and recapitalize has lost its impact and that collectively we have under-estimated the risks associated with such a complex and time-constrained modernization and recapitalization effort. Even seemingly small issues can have a disproportionate impact on the force. We cannot afford more delays and uncertainty in delivering capabilities and must maintain a focus on revitalizing our nuclear forces and the associated infrastructure."

I really appreciate your candor on this. As you know, we continue to hear calls to slow down, to cut funding, and to reexamine issues that have already been studied numerous times. I appreciate your clear description of the urgency that we have.

Do you have anything you would like to add to that?

Admiral RICHARD. No, ma'am, other than——

Senator FISCHER. I took the words right out of your mouth.

Admiral RICHARD. Yes, ma'am. We chose those very carefully to accurately describe the situation this Nation faces. These capabilities are foundational to our survival as a Nation. It is a great credit that we have been able to take the—it is a once every other generation responsibility to recapitalize the strategic deterrent. We had wise leaders back in the 1980s who saw the need for this—leadership and resources. We have benefited with no nuclear use for up to 42 years in some cases with particular weapon systems, no great power war, and the return on investment that we achieved—the submarine is a great example, designed for 30 years. We thought that was what we were going to get. In fact, you wind up getting 42. What a credit to the people that designed it, built it, operated it, that we were able to take it out as far as we can. But in the submarine's case, we are literally reaching physics and engineering limits such that you cannot extend it. You can only take a piece of high-strength steel, pressurize it at great depths, then take that pressure back off before you just do not want to get in the tube anymore. That is the limits that we have reached, and it is our turn to provide that leadership for the next 40 or 50 years to give them the benefits that we have already received.

Senator FISCHER. Thank you.

Thank you, General O'Shaughnessy, for your meeting with me yesterday. I would commend to my colleagues that they also contact you to have a classified briefing on what we need to do with our cruise missiles. Thank you, sir.

Chairman INHOFE. Thank you, Senator Fischer,

Since a quorum is now present, I ask the Committee to consider two civilian nominations and a list of 871 pending military nominations. All the nominations have been before the Committee the required length of time.

First, I ask the Committee to consider the nomination of James McPherson to be Under Secretary of the Army and Charles Wil-

liams to be Assistant Secretary of the Navy for Energy, Installations, and Environment.

Is there a motion to favorably report these two civilian nominations out?

Senator REED. So moved.

Chairman INHOFE. Is there a second?

Senator FISCHER. Second.

Chairman INHOFE. Any opposition?

[No response.]

Chairman INHOFE. That does pass.

Finally I ask the Committee to consider a list of 871 pending military nominations. Is there a motion to favorably report these 871?

Senator SHAHEEN. So moved.

Senator FISCHER. Second.

Chairman INHOFE. Second.

All in favor, say aye.

[Chorus of ayes.]

Chairman INHOFE. Opposed?

[No response.]

Chairman INHOFE. It carries.

[The information referred to follows:]

MILITARY NOMINATIONS PENDING WITH THE SENATE ARMED SERVICES COMMITTEE WHICH ARE PROPOSED FOR THE COMMITTEE'S CONSIDERATION ON FEBRUARY 13, 2020.

1. In the Navy there is 1 appointment to the grade of lieutenant commander (Colin R. Young) (Reference No. 1224)
2. In the Marine Corps there is 1 appointment to the grade of lieutenant colonel (Mario A. Ortega) (Reference No. 1378)
3. **LTG Thomas A. Bussiere, USAF to be lieutenant general and Deputy Commander, U.S. Strategic Command (Reference No. 1386)**
4. **In the Air Force Reserve there are 2 appointments to the grade of brigadier general (list begins with Joseph R. Harris II) (Reference No. 1387)**
5. **BG Billy M. Nabors, ANG to be major general (Reference No. 1388)**
6. **In the Air Force Reserve there are 24 appointments to the grade of brigadier general (list begins with AnnMarie K. Anthony) (Reference No. 1389)**
7. **In the Air Force Reserve there are 14 appointments to the grade of brigadier general (list begins with Dann S. Carlson) (Reference No. 1391)**
8. **In the Air Force Reserve there are 3 appointments to the grade of major general (list begins with Steven J. deMilliano) (Reference No. 1392)**
9. **BG Andrew J. MacDonald, ANG to be major general (Reference No. 1393)**
10. **In the Air Force Reserve there are 11 appointments to the grade of major general (list begins with Todd M. Audet) (Reference No. 1394)**
11. **BG Christopher E. Finerty, ANG to be major general (Reference No. 1395)**
12. **In the Air Force Reserve there is 1 appointment to the grade of major general (Joseph B. Wilson) (Reference No. 1396)**
13. **Col. Ronald F. Taylor, ARNG to be brigadier general (Reference No. 1398)**
14. **BG Aaron R. Dean II, ARNG to be major general (Reference No. 1399)**
15. **BG Michael S. Martin, USMCR to be major general (Reference No. 1401)**
16. **In the Marine Corps Reserve there are 2 appointments to the grade of brigadier general (list begins with Douglas K. Clark) (Reference No. 1403)**

17. **LTG Jacqueline D. Van Ovost, USAF to be lieutenant general and Deputy Commander, Air Mobility Command (Reference No. 1441)**
18. In the Air Force there are 5 appointments to be major (list begins with Joshua E. Erlandsen) (Reference No. 1443)
19. In the Air Force there are 44 appointments to be lieutenant colonel (list begins with Matthew G. Adkins) (Reference No. 1444)
20. In the Air Force there are 31 appointments to be lieutenant colonel (list begins with Jenara L. Allen) (Reference No. 1445)
21. In the Air Force there are 129 appointments to be lieutenant colonel (list begins with Daniel J. Adams) (Reference No. 1446)
22. In the Air Force there are 18 appointments to be colonel (list begins with Jennifer R. Bein) (Reference No. 1447)
23. In the Air Force there are 55 appointments to be colonel (list begins with Wesley M. Abadie) (Reference No. 1448)
24. In the Air Force there are 52 appointments to be major (list begins with Lior Aljadeff) (Reference No. 1449)
25. In the Air Force there are 294 appointments to be major (list begins with Jason K. Adams) (Reference No. 1450)
26. In the Air Force there are 52 appointments to be lieutenant colonel (list begins with Victoria M. Aglewilson) (Reference No. 1451)
27. In the Air Force there are 2 appointments to be major (list begins with Junelene M. Bungay) (Reference No. 1452)
28. In the Air Force there is 1 appointment to be lieutenant colonel (Christopher J. Nastal) (Reference No. 1453)
29. In the Air Force there is 1 appointment to be major (Alexander Khutoryan) (Reference No. 1454)
30. In the Air Force there is 1 appointment to be major (Daniel S. Kim) (Reference No. 1455)
31. In the Air Force there is 1 appointment to be major (Marilyn L. Smith) (Reference No. 1456)
32. In the Army there is 1 appointment to be lieutenant colonel (Zachary J. Conly) (Reference No. 1457)
33. In the Army there is 1 appointment to be major (Audrey J. Dean) (Reference No. 1458)
34. In the Army Reserve there is 1 appointment to be colonel (Michael W. Brancamp) (Reference No. 1459)
35. In the Army there is 1 appointment to be major (Tracy J. Brown) (Reference No. 1460)
36. In the Army there is 1 appointment to be major (Kenneth A. Wieder) (Reference No. 1461)
37. In the Army there is 1 appointment to be lieutenant colonel (Chong K. Yi) (Reference No. 1462)
38. In the Army Reserve there are 11 appointments to be colonel (list begins with John C. Benson) (Reference No. 1467)
39. In the Army there is 1 appointment to be major (Ross C. Puffer) (Reference No. 1468)
40. In the Army there is 1 appointment to be major (Amanda G. Luschinski) (Reference No. 1469)
41. In the Army there is 1 appointment to be major (June E. Osavio) (Reference No. 1470)
42. In the Army there are 2 appointments to be major (list begins with Yasmin J. Alter) (Reference No. 1471)
43. In the Army there are 3 appointments to be lieutenant colonel (list begins with Otha J. Holmes) (Reference No. 1472)
44. In the Army Reserve there is 1 appointment to be colonel (Shaun P. Miller) (Reference No. 1473)
45. In the Marine Corps there is 1 appointment to be major (Keith A. Stevenson) (Reference No. 1474)
46. In the Army there is 1 appointment to be major (Krista H. Clarke) (Reference No. 1475)
47. In the Army there is 1 appointment to be colonel (Peter K. Marlin) (Reference No. 1476)
48. In the Army there is 1 appointment to be major (Angela I. Iyanobor) (Reference No. 1477)
49. In the Army there is 1 appointment to be lieutenant colonel (John J. Landers) (Reference No. 1478)
50. In the Army there is 1 appointment to be major (David P. Frommer) (Reference No. 1479)

51. In the Navy there is 1 appointment to be lieutenant commander (Catherine M. Dickinson) (Reference No. 1480)
52. In the Navy there is 1 appointment to be commander (Donald A. Sinitiere) (Reference No. 1481)
53. In the Navy there are 61 appointments to be captain and below (list begins with Stephen W. Aldridge) (Reference No. 1483)
54. In the Navy there is 1 appointment to be captain (Paul J. Kaylor) (Reference No. 1484)
55. In the Navy there is 1 appointment to be lieutenant commander (Andrew S. Jackson) (Reference No. 1485)
56. In the Marine Corps there are 3 appointments to be major (list begins with Joseph P. Ball) (Reference No. 1489)
57. In the Marine Corps there are 5 appointments to be major (list begins with Donald K. Brown) (Reference No. 1490)
58. In the Marine Corps there are 4 appointments to be major (list begins with Christina L. Hudson) (Reference No. 1491)
59. In the Marine Corps there are 2 appointments to be major (list begins with James M. Shipman) (Reference No. 1492)
60. In the Marine Corps there is 1 appointment to be major (Christopher L. Kaiser) (Reference No. 1493)
61. In the Marine Corps there are 3 appointments to be major (list begins with Peter T. Graham) (Reference No. 1494)
62. In the Marine Corps there are 3 appointments to be major (list begins with Daniel E. Fuson) (Reference No. 1495)

TOTAL: 871

Now, for those who may have come in a little bit late, we are waiving opening statements. We are going to get right to the questions, and we are going to adhere to the 5-minute rule. Thank you very much.

Senator Shaheen?

Senator SHAHEEN. Thank you, Mr. Chairman.

Thank you both for being here and for your service.

I want to follow up on Senator Reed's question about the New START treaty because, as he pointed out, we are less than a year from its expiration. We could extend it for 5 years without going through a whole Senate confirmation process, and it seems to me—while I recognize the concern that you expressed, Admiral Richard, that I have heard from other sources about the fact that it does not encompass a number of other weapons. The fact is we could extend it and work on those other weapons at the same time without losing the important information that we are currently getting from New START.

So I wonder if you could describe how STRATCOM uses information from New START such as through inspections and data exchanges as you look at your day-to-day planning.

Admiral RICHARD. Senator, so that insight gives us a much better idea of what the threat level is from that particular class of weapon systems are, which enables us to do a very calculated and thorough job of determining exactly how we deter the use of that, all very valuable and helpful. So I would desire to keep those attributes.

But I am also required to do the same thing on the parts that are not included in the treaty. So better for me if we could down a path to address all of that.

Senator SHAHEEN. Sure. But if we do not extend New START and it expires next February, you lose that information. Is that correct?

Admiral RICHARD. That is correct, Senator.

Senator SHAHEEN. I think this is probably for General O'Shaughnessy. Last August, 33 airmen from New Hampshire's Air National Guard spent several weeks on a remote Alaskan island near the Bering Sea. I am sorry Senator Sullivan is not here because they were part of a rotating group of airmen and guardsmen who were helping to build a new home for a group of indigenous people who have been displaced due to rising sea levels.

Can you talk about what you see from climate change and what we are doing to try and shore up our infrastructure and to be prepared for the challenges we are going to face as climate change increases and creates more of these kinds of situations?

General O'SHAUGHNESSY. Senator, what I would talk to is the importance of the Arctic and specifically in this case Alaska not only, as you mentioned, with increased activity and the things that we are seeing and some problems with erosion that are very real—they are real from both a military aspect, as well as, of course, as you mentioned, the indigenous population.

One of the things that we try to do is we partner, as you mentioned, with organizations that are tied to the indigenous people—for example, Tulikika and AFN has been a great partner—because I think we have common challenges of which we might have common solutions. We went to Barrow, for example, and saw some of the erosion as the ice has melted and now the waves are hitting the shore. That affects us and some of our radar installations just as much as it effects the local village, and so we are trying to partner with the local communities to truly understand what is happening and the impacts.

But we also see it because simultaneously this is a critical part for us for the defense of our Homeland. If you look at it as an avenue of approach and we see the Arctic as an avenue of approach to our Homeland that we need to be able to defend, and we need to be able to operate out of. Therefore, you need infrastructure. You need the ability to actually bring your force in and sustain a force. You need to be able to communicate. You need to actually understand what is happening in that domain and have the domain awareness.

These are very similar. We find multiple opportunities in some of the forums that we have led with our partners in both industry, local populations, local communities, all the way down to the villages that we find these common approaches that we might be able to solve. We are working, for example, in communications that might help us with the proliferation of LEO [low Earth orbit]. That would bring communication not only to us as a military but even to the remotest villages.

Senator SHAHEEN. So, as you are looking at preparing budgets for future years, how are you factoring in the cost of those infrastructure needs that we have as we are seeing the impacts of climate change?

General O'SHAUGHNESSY. So what we are doing is we are trying to look at the infrastructure that we need, the infrastructure that we need to be able to defend our nation. This is actually not just with the United States We are working in partnership with Canada, and especially with my NORAD hat on, we are very interested in similar issues that we see from the Canadian front of having an

infrastructure in place throughout the Arctic that will give us the ability to defend our nation. In doing so, we have to have the sustainability of that infrastructure going into the future.

Senator SHAHEEN. Thank you very much.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Ernst?

Senator ERNST. Thank you, Mr. Chair.

Gentlemen, thank you for being here today.

Admiral Richard, I will start with you as we continue the discussion about modernization. As has been discussed, the ground-based strategic deterrent will replace the Minuteman III as the sole intercontinental ballistic missile starting about the mid-2020s. Congress has appropriated the funds to do that for this fiscal year.

But while the GBSD will enter service this decade, the Air Force will continue to sustain the Minuteman III into the 2030s. This is an old program from the 1970s, and I think some of the silos date back to maybe even the 1960s. I am concerned about failure to modernize with our nuclear deterrent, and I think that in the long run, this will be a lot more costly and makes it a risky gamble with our national survival.

So just if you can, how are we balancing the maintenance issues that will occur as we continue to hold onto the Minuteman III and talk a little bit about that. Are you confident then that as we move into the new system, that the timeline is suitable as a deterrent?

Admiral RICHARD. Senator, the short answer is yes. It is yet another example of why we have no margin left in terms of the need to recapitalize. In terms of sustainment of Minuteman III, I am not sure that it is often recognized the extraordinary levels the Air Force went to to be able to accomplish that. Unlike a submarine, which is designed to have depot level maintenance, the Minuteman III was not. It was designed to serve for a certain period of time and get replaced, and the Air Force went in after the fact and figured out how to take that and get a depot maintenance capability retrofitted into the weapon system that will then enable it to go till the crossover point. I think it is a great credit to the Air Force they were able to accomplish that. That is what gives me confidence, provided no further delay in GBSD, that this will work.

Senator ERNST. Well, God bless the Air Force, you know, their extraordinary effort, and it just points to the fact, though, that as Congress, we need to be aware of these issues and make sure that we stay on top of it.

General O'Shaughnessy, thank you for being here.

I am going to redirect and talk about something that has not been brought up yet.

At the SOUTHCOM posture hearing, I asked Admiral Faller about challenges with COCOM and interagency coordination to stop the flow of drugs and human trafficking over our southern border and entering into the United States. It is surprising but my home State of Iowa really sees one of the highest rates of human trafficking, and I know that there are many colleagues here that have those same concerns and same issues in their home States. We have also felt the pain and the pressure of illicit drugs that enter into the stream in our States.

What I would like to hear from you is thoughts on how that interagency coordination is going, the collaboration that you might have with SOUTHCOM, and what are the efforts that we see to push back on some of the flows of drugs and human trafficking?

General O'SHAUGHNESSY. Yes, ma'am. Thank you for highlighting that.

One of the things that we do find is a very strong collaboration amongst the interagency. I think it starts with the Interdiction Committee and that is led, of course, by the Drug Czar and Admiral Schultz as the co-chairs, but it brings the entire interagency together with respect to the counternarcotics, counterdrug, and the transnational organized crime and the aspects of that. It is a great forum of which we all get together. Admiral Faller is there, as well as myself, to really bring the team together, if you will.

In addition, as you mentioned, SOUTHCOM and NORTHCOM have a great relationship. In fact, Admiral Faller is actually my cousin, as it turns out. So there is a great relationship there.

Senator ERNST. Okay, good. Sounds a lot like Iowa.

[Laughter.]

General O'SHAUGHNESSY. We see that we clearly have to work together as we do this.

We actually went down together to Mexico City to meet with the Mexican leadership and especially looking at SEDENA and SAMARA and the great work that they are doing to help with both the migration flow and the counternarcotics problem.

Then we went right from there to Guatemala, and we were able to work with the local Guatemalan officials and really see how do we stem this flow and how do we get to the roots to be able stem that flow.

I think it is those kind of relationships and working together that is important, but is also important what we are doing on our actual border, and as you know, we are very active with respect to some of the work that we are doing to provide assistance. We are the lead Federal Agency but we provide great assistance because we see this as a national crisis, 68,000 to 69,000 Americans killed last year. That is something that we have to be a part of the solution, and we are. We flew over 5,000 hours in support of that last year, over 2,000 man-days of intelligence analysis. It is one of the things I think we bring as the military, that we can bring that expertise and bring that right to our interagency partners. We continue to find those areas where we can bring that value to the interagency process.

Senator ERNST. I appreciate it so much. Thank you, gentlemen.

Thank you, Mr. Chair.

Chairman INHOFE. Senator Blumenthal?

Senator BLUMENTHAL. Thanks, Mr. Chairman.

Thank you both for being here and thank you for your service.

Admiral, thanks particularly for your enormous contribution to our submarine force. I assume you continue to share the Navy's strategy and support it to achieve 66 submarines by 2048.

Admiral RICHARD. Senator, I do.

Senator BLUMENTHAL. I am somewhat disquieted, even dismayed by the apparent change of pace in construction reflected in this budget, dropping one of the submarines that was planned for this

year at the Electric Boat shipyard. Do you share that concern that we may be falling off the necessary pace?

Admiral RICHARD. Senator, one, I am pleased that Navy is maintaining the highest priority on the *Columbia*-class submarine, which directly supports my mission set, and beyond that, I think that is just indicative of the difficult budget choices that Navy and the whole Department of Defense are having to make.

Senator BLUMENTHAL. But those budget choices reflect priorities, and the *Virginia*-class—and I agree with you completely about the *Columbia*-class and there is a lot of progress in the budget in that regard. But the *Virginia*-class is essential to our undersea superiority. Is it not?

Admiral RICHARD. Senator, the *Virginia*-class submarine is the finest submarine in the world.

Senator BLUMENTHAL. We want to continue to build more of them.

Admiral RICHARD. Absolutely, sir.

Senator BLUMENTHAL. In that regard, I want to ask about hypersonic missiles which in your testimony you say, "ensure our deterrence and conventional power remains strong in the future." Are you satisfied with the investment that we are making in hypersonic missiles, given the Russians and the Chinese investing so heavily in them? That can be a question for both of you.

Admiral RICHARD. Senator, what I will start with, because there are two ways to answer—there are two aspects to your question. One is offensive use of hypersonics by us, plus there is a defensive piece, and I remind everybody the Russians have publicly reported that they have hypersonics on alert now. This is a very real thing.

My command has had a longstanding requirement for conventional prompt strike. Hypersonic technologies would be an ideal way to go accomplish that, and I think that enables me to better deter threats to this nation. Also, I have responsibility for global strike already inside the Department of Defense, and I think we would be an ideal command because we have concepts, command, and control ready to go to use that to the best advantage.

Senator BLUMENTHAL. Are you satisfied, though, that we are investing sufficiently in all of the aspects of hypersonics both offensive——

Admiral RICHARD. Senator, I am. I was actually very pleased in the priority. It is in line with the National Defense Strategy in terms of the priority that this budget submission puts in that and a couple of other technical areas.

Senator BLUMENTHAL. Are you concerned about a developing potential arms race in hypersonics?

Admiral RICHARD. Senator, no. Again, it is do you have sufficient capability, technologies to meet our national objectives. I think we are on pace to do that.

General O'SHAUGHNESSY. Senator, I would highlight on the defensive side, one of the key aspects I think is the space sensing layer and the importance that we invest in that and continue to invest, which we are and this budget includes that. But we need to continue to invest in that space sensing layer because as we go from a ballistic missile to a hypersonic glide vehicle, for instance, it really changes the problem of maintaining custody of that weap-

on system throughout its entire flight, and the best way to get at that is the space sensing layer. So I strongly endorse continued investment in that for a defensive.

It is also about awareness because unlike a ballistic missile where you know where it is going, the hypersonic glide vehicle—you do not necessarily know because it has the energy and the ability to maneuver. We have to be able to keep track of that, and so I can give the warning to Admiral Richard so he knows where that is going from the NORTHCOM and NORAD perspective.

Senator BLUMENTHAL. Well, I agree with you that it introduces a potential game-changing technology and new challenges in terms of both defense and deterrence and offense, and I would like to ask for more information perhaps in a classified setting if we can arrange a briefing.

I am also going to submit for the record, because we are adhering strictly to time limits, questions on the threats posed by cyber. I understand there was a recent cybersecurity conference that involved the National Guard, which I would like to learn more about, and also troops at the border. So I will be submitting questions for the record on those two topics.

Thanks, Mr. Chairman.

Chairman INHOFE. Thank you very much.

Senator Cotton?

Senator COTTON. Admiral Richard, I want to return to the budget for the National Nuclear Security Administration. The President's budget has it at just under $20 billion. Are you confident that that is a sufficient number to proceed with nuclear modernization?

Admiral RICHARD. Senator Cotton, the short answer is yes. There is not a lot of excess margin that number, but it is sufficient.

I will also offer that I have a very close relationship with NNSA. I just spoke to Ms. Gordon-Hagerty actually yesterday in a continuing series. I would point to that as an example of us making sure that she has the right resources.

Senator COTTON. And if you take the warhead modernization program on the one hand and you take the triad modernization—the delivery systems on the other hand, that is also a number that is satisfactory to keep those two things integrated over the next several years?

Admiral RICHARD. Senator, yes, again with no extra margin. I would throw in nuclear command and control as the third piece of that that also needs to be synchronized.

Senator COTTON. I would as well given the fact that we have woefully—woefully—undercapitalized our nuclear command and control and infrastructure over the last many decades.

The one thing I hear you say, not much excess margin. To the extent that Congress does not meet that budget number of just under $20 billion, would we be introducing more risk into those programs for every dollar that we go below it?

Admiral RICHARD. Senator, yes, and in fact, we are close enough into this recapitalization that we can also give you a number where you start to see points of no return, and they are not that far off. They are in the early 2030s, that if we do not recapitalize now, we simply lose the fundamental infrastructure and capacity that if we

cross over, you cannot recover for like a decade no matter how much money you put at it. Those points are starting to come into view.

Senator COTTON. General O'Shaughnessy, I want to talk about the Wuhan coronavirus. It is the Wuhan coronavirus, not some politically correct name that a bunch of politically correct bureaucrats at the World Health Organization have come up with, to give you a sense of their misplaced priorities.

You were recently directed in your role as Commander of the Northern Command to begin prudent planning for a potential pandemic. I think it is very prudent to begin prudent planning. So could you talk us through what the role for Northern Command would be in such a situation and the extent to which you have already begun planning or even exercises for that scenario?

General O'SHAUGHNESSY. Yes, sir. So, Senator, what we are doing first and the immediate actions we have taken have been in support of Health and Human Services with respect to housing some Americans coming home, and I think right now we have over 600 still in our facilities in support of both the State Department bringing their folks home, as well as HHS. That has been going extremely well, and we appreciate the close coordination through the interagency to make that happen. It also is tied to 11 airports, of which we have facilities that are on standby in coordination with both the Department of Homeland Security, as well as HHS and CDC, as you would imagine. The ongoing collaboration continues to make sure we are part of the support structure that we would have here within the United States to be able to respond to this virus.

Now, to your point about the global aspects of this and our role as NORTHCOM, we are, as you would expect, doing the appropriate prudent military planning to ensure that we are able to respond. The types of things that we are doing is, for example, we are running a BTC every single day and that includes representatives from all around the globe, all the geographic combatant commands that are in there to make sure that we see what is happening within their regions and that we are centrally managing that from our headquarters in NORTHCOM.

We have plans in place, as you would imagine, that look for what is the scope that this could go to potentially and making sure that we are not caught by surprise.

Both our role that we are doing in the day-to-day is very much informative to the role that we are doing for the planning and making sure that we are prepared for the worst case scenario that might happen and make sure we are doing that globally not just here in the United States.

Senator COTTON. Thank you, General. I think we are still at only 14 cases in the United States that have been confirmed by public health authorities.

General O'SHAUGHNESSY. That is correct, sir.

Senator COTTON. Let us hope that remains the case. I think we are in a much better position than we were a few weeks ago when we had 20,000 people landing in the United States from mainland China every single day. So I commend the President and the administration for the travel ban put in place.

But there are still around a million and a half Americans who traveled from—or a million and a half persons who traveled from mainland China starting in mid-November until the travel ban went into place. So we have even a fraction of what China reported, just overnight, 14,000 cases, which I should add were not newly discovered cases or the result of new scientific breakthroughs, but a political decision to finally start getting a little bit closer to the truth. Obviously, it is going to put a lot of emphasis and stress on the mission and the planning that you and your people have been doing. So thank you for that.

Chairman INHOFE. Senator Heinrich?

Senator HEINRICH. Admiral Richard, congratulations on your assumption of command, and I would remiss if I did not invite you back to Sandia and Los Alamos. I know you have been there before.

But during your confirmation hearing, you agreed that restoring plutonium pit production at Los Alamos is the military's top priority. However, in your answer you also stated that there are issues. Now that you have had a little time to work with NNSA and get up to speed on that, I would like to ask you to articulate what the specific issues and impediments are that you see in meeting the current goals.

Admiral RICHARD. Well, Senator, when I talked about the weapons complex infrastructure, the plutonium pit would be the first thing that I would call attention to in terms of our nation's ability to generate that number of pits that is essential simply for the sustainment programs that we desire to go do. The concern actually again was funding. Step one is to provide adequate resources. I am very confident, particularly in the near term at Los Alamos, that with adequate funding we can deliver 30 pits per year by 2026, and I continue to work with NNSA and Ms. Gordon-Hagerty to make sure the longer-term plan is also—I have equal confidence in that.

Senator HEINRICH. One of my concerns with regard to that is if we are going to do pit production at two locations and the intellectual capital is currently pretty much all at Los Alamos, not losing, not poaching that capital to a second facility before we actually get job number one done. Do you share those concerns?

Admiral RICHARD. Well, Senator, not only do I share them, but it is in the weapons complex and other areas writ large, do we have enough talent to be able to accomplish what we have to go do.

So I work with Ms. Gordon-Hagerty closely on her stack of responsibilities with regard to that, as well as we do a number of things at United States Strategic Command to bring talent into the strategic deterrence area at large. I can give you a longer answer for a question for the record. But, for example, we have an academic alliance with over 70 colleges and universities where we are trying to encourage people to come in and develop expertise in national security strategic deterrence, and the weapons complex benefits from that.

Senator HEINRICH. As you have articulated, we are pushing up against very thin margins on all three parts of the triad. What are the consequences for your command if any one of those legs experiences a significant delay? And if that were to occur, how would you rebalance?

Admiral RICHARD. Senator, one, I thank you for that question.

I think we all well know the commanders of Strategic Command have been repeatedly asked that question over time. Part of how we got to the point that we are at was by doing operational mitigations to make up for lack of earlier decisions to recapitalize.

We are very close to turning that rheostat about as far as it is going to go. So the last remaining things that I have—and you can refer to them as a hedge. Sometimes that is more thought of for the weapons complex. But the triad itself was built with an overlapping, interlocking set of attributes that are very complementary, and each leg makes up for the weaknesses in the other leg.

I would get to the point where I—basically that is called interleg hedging. I would have to start taking the attributes of the triad apart, and I will lose attributes along the way. So I can cross-cover with one piece of the triad on another, but I may lose the survivability of the ballistic missile submarines. I may lose the flexibility and signaling for the bombers. That is about what is left for us to do.

Senator HEINRICH. Moving on real quick, I do not have a lot of time left. But you are familiar with my interest in hypersonics and more broadly in just maintaining the R&D focus to have a third offset, whether that is through the lens of hypersonics or directed energy or, for that matter, artificial intelligence.

We are seeing a big bump in this budget in the area of hypersonics. It is a $3.2 billion overall number. It is a 23 percent increase. How is that money going to be spent so that when you are scaling, that you are still efficient and spending it wisely?

Admiral RICHARD. Well, Senator, that question would be best answered by the services that are responsible. All of them are working on it. I am pleased with the progress. I am working to make sure that when that capability is delivered, I am ready to receive it with concepts of operation and command and control, being able to immediately put it to use defending the nation.

Senator HEINRICH. Thank you, Chairman.

Chairman INHOFE. Senator Scott?

Senator SCOTT. First, thank you both for your service.

General O'Shaughnessy, I think we have all been following what Communist China has been doing around the world. I am from Florida, and so everybody in Florida is clearly watching what is happening in Latin America, especially Communist China's involvement in Venezuela but even in other countries with their investments. What they are trying to do is build relationships and make people dependent on them.

How does Communist China's involvement in Latin America impact our national security?

General O'SHAUGHNESSY. Well, I think you bring up a good point because sometimes it is easy to forget about our own neighborhood, as we look at this global competition that we are in with China. Admiral Faller has done a really good job I think of highlighting that and the consequences thereof and the focus that we need to have not only within the Department of Defense but as a nation to that.

Of course, we also see it, for example, in the Bahamas, which is even closer to home, where we see China is trying to get an influence with one of our closest neighbors and great partners.

I think we have to be cognizant of it. We have to think about it from the aspect of what are the implications to us from a national security standpoint, and then what are the implications to us just as a nation as we see this global competition playing out in our own hemisphere close to home.

Senator SCOTT. Thank you.

Admiral Richard, do you think we have enough—whether it is Communist China or Russia in Latin America, do you think we have the right amount of assets there and the right amount of focus there, or do we need to put more focus based on what they are doing to try to have an impact close to our borders?

Admiral RICHARD. Senator, one, I applaud the Chairman of the Joint Chiefs' focus broadly on global integration, and when you take a global view of the competitions that we have, it drives visibility into those areas. So I think the Department is moving in the right direction to look at the totality of what we need to be concerned about and not just focus on one geographic region.

Senator SCOTT. So Canada is about to make a decision on 5G on Huawei. It is my understanding that the military establishment in Canada has said that the Trudeau administration should not go forward with doing any business with Huawei with regard to their 5G.

How would that impact our relationship with Canada if they do?

General O'SHAUGHNESSY. Senator, what I would say is clearly we see the security implications of 5G not only with Canada but with our allies and partners and even here at home. Clearly we see this as a national security implications at large, and making sure that we, with all our allies and partners—that they all go into any negotiations and ultimately procurement of infrastructure with clear eyes to truly understand what are the risks and then what can we do to mitigate those risks.

I think as we do continue to work with Canada as a close ally and a partner, just like we have done with other allies and partners, we need to make sure that we are sharing all the intel that we have, which we are, and making sure that we provide them all the things that they need to make the proper decision and an informed decision to fully understand the risks that they take and ultimately the implications, to your point, that we might have here at home with what we can share with them, how we would share with them, and what the implications would be.

I think as we look at Canada with the NORAD aspect of that, that becomes even closer to home because of our binational relationship we have with them and making sure that we understand the rippling effects of potential security concerns relative to Huawei, 5G, and we see as very real concerns.

Senator SCOTT. So knowing the risks especially like with NORAD, what should Congress be doing to try to make sure that Canada makes the right decision and to follow the lead of their military establishment that Huawei should not be a partner for 5G?

General O'SHAUGHNESSY. I think the continuation of what we are doing already, which is the great conversations and dialogue that we are having with our partner in Canada, again sharing the intel so that we make sure that they understand fully the risks that they might be taking on so that they can make a decision, their own sovereign decision that they will make, but it is an informed decision fully understanding the risks, the consequences, and ultimately what the rippling effects might be as a result of that from a national security, for their own security, and then for us together as a binational organization within NORAD as an example, and as we are tied with North America very much so the rippling effects through the binational, bilateral relationship.

Senator SCOTT. Thank you.

Chairman INHOFE. Thank you, Senator Scott.

Senator Manchin?

Senator MANCHIN. Thank you, Mr. Chairman.

I thank both of you for your service.

I can only repeat to you what I have heard in talking and listening to people with expertise, and this is how they have kind of explained the Cold War coming to an end and where we are today and if we are on top of our game or if we are ahead of our game. Basically the United States in the 1980s took the position to be very aggressive in some of the weapons we designed. Russia could not keep up with what we were doing. It kind of forced them into a situation where they had to evaluate could we defend ourselves against America with the superior weapons they have designed. That is what was given to me, along those lines.

Now, if you take it from the Cold War forward, have we still stayed on top of our game? It sounds to me as if hypersonic weapons and other future weapons have been more advanced by other countries such China, even Russia coming back into the scene in a real aggressive way, maybe North Korea to a certain extent. Are we going to be able to deter them from moving forward because of our superiority, or are we going to be playing defense to catch up?

So however you can help me with that to understand it better.

Admiral RICHARD. Let me start that in terms of, first, I go back to that was a choice by China and Russia to develop those weapons. We certainly could have done that and we did not. I think their actions in many cases speak louder than what they tell us in terms of what their intentions are. Again, this is a competition just like any other military competition, and I am confident that this nation has the ability to produce the capabilities we have to have. For deterrence, again the basic equation has not changed. Can I deny you your aim or can I impose a cost on you that is greater than what you seek? I can do that if necessary.

Senator MANCHIN. Admiral and General both, the evaluation was given to me about the Cold War and the end of the Cold War. Is that accurate? We outpaced them so far that they had to come to the realization they could not compete and defend themselves?

Admiral RICHARD. Senator, what I would offer, I would break that into a conventional piece and a strategic deterrence piece. On the conventional side of the house, in general I would say that that is in the main correct. What we were able to do on the strategic deterrence side is hold strategic deterrence. The whole goal on stra-

tegic deterrence is for nothing to happen, and we were successfully able to do that. So I would recharacterize that slightly in terms of a conventional force advantage that we achieved.

Senator MANCHIN. General?

General O'SHAUGHNESSY. Senator, what I would add to that, though, as you fast forward to today, what we do see is our adversaries really investing in some of that conventional capability that does have the ability to hold us at risk and we have to, therefore, be able to defend against it. What I am referring to, for example, is the submarine that has very good capability that carries cruise missiles, some of the long-range aviation like the bombers——

Senator MANCHIN. We have the USS *West Virginia.* I have been on it and spent some time with them. I appreciate it. You do an excellent job.

General O'SHAUGHNESSY. And so I think from our perspective we think a lot from the Cold War about the nuclear aspect and deterrence. I think as we reach today, we also have to factor in the conventional aspect of this and having peer adversaries that have the capability to reach out to us at home in ways that we did not have in the Cold War that we have to factor into our defense.

Senator MANCHIN. My final question would be basically you are looking 30 years down the road—at least 30 years down the road—for the life of the weapons and the defense that we are doing with our triad. Are we looking at their capabilities and where they are looking 30 years down the road too and if they might be to the point to where they are advancing quicker, willing to make more sacrifices, spend more money to become an equal super power?

The One Belt, One Road, as far as I am concerned, is China wants to be the only super power left by 2050. I hope Americans understand that, and I hope we in Congress understand it. That is what I am concerned about. I am determined in my life and for my children, whatever I can do and whatever decision can prevent that from happening because this is the greatest country on earth. There is no doubt what their mission is, what China's mission is.

Admiral RICHARD. Sir, not only do I agree but I will give you a quick example. *Columbia* is going to be in service until 2080. The Navy and the submarine force—and there are Air Force equivalents to this too—have long had very extensive programs that are looking 30 years down the road, and they are physics-based—they are not necessarily intel-based—and looking at anything that could be developed into a threat so that we in parallel start working the countermeasure to that. I have great confidence in those programs. They have served us well.

General O'SHAUGHNESSY. And in my time, I would just quickly say that that is why the NDS implementation, which very clear focuses on this great competition and the competition with China in particular and Russia drives, us to make sure we do invest in those right resources that will allow us to compete appropriately going into the future, Senator.

Senator MANCHIN. It is my confidence in military leaders like yourselves that gives me the confidence for my children and grandchildren. Thank you.

Chairman INHOFE. Senator Blackburn?

Senator BLACKBURN. Thank you, Mr. Chairman.

Thank you for your thoughtfulness and coming before us today.

I want to talk a little bit about the hypersonics issue, circle back to that, because of Arnault Engineering Development Complex which is there in Tennessee, and of course, they are very much engaged in some of the work that we are trying to do as we look forward. I actually had some people in the office yesterday, and we discussed this and Arnault's importance to the Air Force.

But one of the things that continues to come up as we talk about hypersonics is personnel and a trained workforce. General O'Shaughnessy, I would love to hear from you. Do you think we have what we need to meet the demand as we move forward, and how do we go about backfilling that? How do you change recruitment in order for us to be able to backfill that?

General O'SHAUGHNESSY. Yes, ma'am. Thank you for highlighting that.

One of the things we look at, first, there is a capability but then there is also a capacity. If you look at our entire defense industrial base, one of the things I think we have to really focus on is are we able to both have the technology and to make sure we are taking advantage of the emerging technology in the appropriate ways, but also do we have the capacity to turn that into actual weapon systems that can be relevant on the battlefield.

Senator BLACKBURN. I am glad you mentioned that because I had noted in 2017 at a hypersonics conference—I think the Chinese had like 250 papers, and it was 10 times what we had had.

So, Admiral Richard, as you look at this, are you attracting and training and retaining the experts that are going to be needed in order to meet the demand?

Admiral RICHARD. Ma'am, the short answer is you are highlighting a challenge for the department across the board. It is not only in hypersonics that you talk about, but I could point to any number of other areas where we face an equivalent challenge.

I had been very pleased in the efforts particularly by the services to reach out, develop, attract, and create this industrial base that we are going to have to have not only for hypersonics but for the capabilities writ large. They are working very hard on it.

Senator BLACKBURN. Then human capital is one component, but then facilities, areas like Arnault Engineering, are important. So where are we on the sufficiency of our facilities and having what we need there?

Admiral RICHARD. Again, I applaud service efforts to go after the capacity and the industrial base physical plant necessary to achieve the results that you are talking about. They are working very hard on both pieces of that.

Senator BLACKBURN. Then highlighting another area, let us move over and talk about electromagnetic spectrum. As you know, this is something where I have spent a good bit of time working on how we proceed in this area, how we utilize expertise when it comes to working in a contested EW [electronic warfare] environment. Do we have that? Are we moving forward with the right type work, the visualization, the modeling, so that we are growing the expertise in this area?

Admiral RICHARD. So, ma'am, let me start that.

Senator, one, I applaud your interest and your leadership in terms of electromagnetic spectrum. That is yet another domain not unlike space and cyber that was permissive and we had freedom of maneuver for a very long period of time, and that has changed. So it too has to have a certain level of expertise. The services are working very hard on that.

For example, if you would allow me to have a Navy flashback for a second. I am a joint commander now but just left the Navy. The submarine force, which I recently commanded, has been an emergency flank wide open trying to develop that expertise to the point that we have restructured the electronic technicians' rating to elevate greater numbers, better training, and I could go into more detail on that. You see all the services working like that right now.

Senator BLACKBURN. Let me ask you this. Are we at a point where we should develop a concept of operations for EW?

Admiral RICHARD. Yes, ma'am. You hit on a couple of things that we have to continue to work on. There are numerous concepts of operation. To be able to knit them together in a whole is——

Senator BLACKBURN. Right, but we need one overriding strategy.

Admiral RICHARD. One overarching piece——

Senator BLACKBURN. And if you are reworking training and looking at a different utilization of expertise, then it seems to me we would be well served to move to one concept of operations that would enable each of our military divisions.

Admiral RICHARD. Senator, one, I not only agree, but I would also highlight another point you made earlier that a key piece of that concept is going to be electronic battle management, electronic warfare battle management, the ability to visualize. We cannot be statically assigned anymore in our use of the RF spectrum. We have to be dynamic. We have to maneuver, and we are going to have to be able to visualize and understand it to accomplish that. Now, the concepts will start from there.

Senator BLACKBURN. Thank you. I yield back.

Chairman INHOFE. Senator King?

Senator KING. Thank you, Mr. Chairman.

General O'Shaughnessy, one of the questions I ask quite frequently in these hearings is what does China want, and I want to ask you pointedly, what does China want in the Arctic?

General O'SHAUGHNESSY. Well, thank you, Senator, for allowing me to highlight a little bit of the Arctic and the importance of the Arctic. As it relates to one of our global competitors and potential adversaries, I think it is important to look at what is their desire in the Arctic.

What we see initially is clearly an economic desire because of the natural resources there, and they want to be able to take full advantage of those resources.

But we also see activity, for example, the Xuelong, one of their supposed scientific research vessels that potentially could be the precursor to increased submarine activity and those things from a more nefarious aspect.

So we are looking at it clearly to understand what is it they are trying to do, but from our perspective, we are concerned about that as an avenue of approach. We are concerned about that as——

Senator KING. They are clearly highly interested. I was at an Arctic conference in Iceland a couple of years ago. There was a 40-person delegation from China, and they have designated themselves as a near-Arctic nation, which is like Australia saying—you know. But there they are.

Now, let me follow up. There was a sentence in your presentation that got my attention. Finally, in the past year, we observed signs of nascent but growing strategic cooperation between China and Russia, including a combined bomber patrol last July and Chinese participation in multiple Russian exercises. I find that very important and concerning. Expand on that a bit please.

General O'SHAUGHNESSY. This was not particularly concerning the Arctic, but I will get back to the Arctic in the answer.

What we do see is——

Senator KING. But the Arctic is one of the places where they may well find common cause.

General O'SHAUGHNESSY. Absolutely, and that is where I will move back to where I have some concern there.

One of the things we do see is Russia actually has more advanced operational capability with respect to the longer-range bomber force, and as we see them fairly routinely flying in and around our—Adak as an example. As we see them working with Russia and China together, we have concerns as we just look at that capability, and if they were to work together, they could potentially advance China's ability in that regard.

Clearly in the Arctic, we also see the potential if they work together, but I think there is a little bit different approach because clearly Russia has concerns about China infringing on them from an economic standpoint. Yet, nonetheless, we see Russia with some very significant——

Senator KING. Russia is being very aggressive in the Arctic in terms of icebreakers, airstrips. I mean, that is a big part of where they are putting some of their major investments.

General O'SHAUGHNESSY. Exactly, and so that is where I was going with this answer is that we can actually see the potential for China to leverage Russia's capability and capacity and understanding to develop China's——

Senator KING. Do you have adequate sensors to determine if something is coming over the top?

General O'SHAUGHNESSY. We do not, sir.

Senator KING. And that is clearly a gap that needs to be addressed.

General O'SHAUGHNESSY. It is, Senator.

Senator KING. This hearing seems to be the hypersonic hearing, and I think that is important, and the budget is important, the additional resources. But we are behind. Russia and China are fielding hypersonic missiles now, and are we not 4 or 5 years from there? And my concern is that some of that research should be going into defense because right now hypersonics are really a nightmare weapon for an aircraft carrier, for all kinds of targets. So are we going to put some money into how to defend ourselves against hypersonics, Admiral?

Admiral RICHARD. The short answer is yes, and I think you see the budget priorities that are being developed to do just that.

But I will also go back and offer particularly for Russia and China, we are defending today by deterrence. I can impose a cost on them that I think they will find unacceptable, to deter their use of that or any of their other novel weapon systems.

Senator KING. How do you deter? If we get into a conflict and they—I mean, I do not understand deterrence when they use a hypersonic to take out an aircraft carrier in the strait between Iceland and Scotland.

Admiral RICHARD. Sir, I would have to go into a classified session to give you details of options that I could provide to redress that.

Senator KING. Well, I just hope that 23 percent budget increase—part of that goes to defense.

Finally, very briefly, can hypersonics be nuclearized? Can a hypersonic missile carry a nuclear warhead?

Admiral RICHARD. Senator, absolutely, yes.

Senator KING. So is this really triad 2.0? It is not a ballistic missile. It is not a submarine. It is not an aircraft. Or it could be, I guess, all three of those. But clearly we need to think about hypersonics in terms of the triad, in terms of our strategic deterrence.

Admiral RICHARD. Absolutely, I will offer that it is not our policy or intent right now to nuclearize hypersonics. Other nations can choose to do what they wish in that area, and, yes, this is the competition. This has a lot of similarities to the introduction of the intercontinental ballistic missile back in the late 1950s and early 1960s, and we are ready to address it.

Senator KING. Thank you. Thank you very much, gentlemen. I appreciate your testimony.

Chairman INHOFE. Senator Cramer?

Senator CRAMER. Thank you, Mr. Chairman.

I thank both of you for your service and for being here.

I was going to start, Admiral Richard, with a question about GBSD, and you answered it beautifully for Senator Fischer and in your statements. But I will just emphasize the importance of doing all we can to keep it on track, if not even escalate a little bit, and that is reflected, of course, in the budget and I appreciate that.

I want to ask both of you some questions about the standing up of Space Force, starting with you, of course, Admiral Richard, given the unique relationship between STRATCOM and space and space capabilities, and first, generally ask you, are you comfortable with how it is going in terms of the standing up of Space Force? And what and how are you communicating with Space Force in terms of helping them be successful in training, equipping, manning the force?

Admiral RICHARD. Senator, I would draw a distinction between Space Command, the joint operational command, and the Space Force. My relationship is much more with Space Command. Senator, I would describe it as we are the proud parents. We were where those responsibilities came from. I am delighted that the decision the nation and the Department has made. It is putting necessary attention to our freedom of maneuver and action inside space. General Raymond and I speak frequently. We are setting up a set of war fighter talks here in the very near future. I am encouraged across the board that it improves mission performance overall,

particularly his responsibilities as the sensor manager, looking across missile warning, missile defense, and space situational awareness. The nation wins because we are more effectively utilizing our assets.

Senator CRAMER. Very well said.

General O'Shaughnessy, so again same, basically because obviously the relationship between Space Command and STRATCOM is special, but yours is awfully important as well.

General O'SHAUGHNESSY. Yes. Thank you, Senator.

I am excited about both the Space Force and United States Space Command. I think we are already starting to see some of the benefits of this. I think we as a nation are very fortunate to have a great American, Jay Raymond, leading both of these at this time and really chartering the course that these will take going into the future.

Specifically for us for Homeland defense, from the NORTHCOM role we are very much tied from the U.S. Space Command side relative to those sensors. The very sensors that Admiral Richard mentioned are the ones that we are using for our own Homeland defense.

The second aspect is we look at warfighting as space, a domain of warfighting, that occurs, and we are talking about that in really relevant ways, and clearly from a Homeland defense aspect, that has significant consequences.

Then from a U.S. Space Force, excited about the potential there, as that has now been stood up, of how that is going to allow us to really focus like a laser on space going into the future.

Senator CRAMER. Well, just following up a little bit on that, one of the challenges I think, of course, is actually manning, training, and equipping this force. I think the services all play a role in that, which I think is somewhat unique to the way Space Force has been designed to be successful. I certainly look forward to anything that you can add to that discussion as well.

As I run out of time, I want you to answer that if you have more to say about it, and then actually ask you about our northern tier bases—of course, I have three of them in North Dakota—and what we ought to be looking for in terms of capabilities to meet a potential Arctic conflict and to make sure that we are in sync with the strategy.

General O'SHAUGHNESSY. Well, I would start first on the Space Force. Clearly the intent is it is not just a pulling away from just the United States Air Force but actually looking within the Department of Defense where are our space experts and how do we actually bring them into the Space Force as well.

That aside, relative to your question on the Arctic, we are actually excited about some of the things that we are actually doing right now in your State to support our Arctic operations. Clearly we see the future in our defense of our nation is very critically dependent on our ability to operate in the Arctic, our ability to have domain awareness. So, some of the things we are doing with over-the-horizon radars are critically important for us to have that domain awareness, that understanding of what is happening on the approaches to our nation and in cooperation with Canada through North America is critically important. Whether you are talking

hypersonics—and the over-the-horizon radars have great capability against the hypersonics so we can maintain that custody—or whether we are talking about the cruise missile threats and the bombers, those are all played because of some of the work that we are doing within your State.

Senator CRAMER. Well said, and I appreciate both of you and yield back. Thank you, Mr. Chairman.

Chairman INHOFE. Senator Peters?

Senator PETERS. Thank you, Mr. Chairman.

Admiral Richard and General O'Shaughnessy, your command areas play a very important role in defending the United States from the threat of ballistic missiles, and I note that the Missile Defense Agency's budget request discusses a layered approach to Homeland defense as the underlay to the current ground-based mid-course defense system that protects the continental United States. Specifically the MDA request discusses Aegis and THAAD as potential options for a layered Homeland defense approach. But I am also interested in the potential for transportable ground-based interceptors or other systems that can serve as an underlay to existing GMD system and add flexibility and depth in a cost-effective way.

As you know, MDA has completed an environmental impact statement of three locations to host a potential third GMD site, including two fields at Fort Custer in Michigan, which were identified as the least expensive and least environmentally impacted site.

But the question for both of you is, can you please discuss how you view the potential of a layered Homeland missile defense system, and what role would the three locations, which MDA has already studied, play in this layered system?

General O'SHAUGHNESSY. Senator, I will start with this.

First, I will talk to one of the reasons that this demand signal is there, as we look at the cancellation of RKV and the resulting timeline between now and when an NGI, next generation interceptor, could be fielded. We have very significant concerns about that from NORTHCOM. We have been working closely with both MDA, as well as OSDR&E, Dr. Griffin. I am pleased to announce now that we are bringing time in as a variable within that discussion. What we are trying to do—we cannot wait 10 years to get the next generation interceptor fielded. We are trying to bring that left, and so I think we will see, as the RFP actually gets released, we are actually looking to bring time left and get that fielded faster. I think we are in a good position there.

But that brings you to part of that mitigation, as the threat continues to advance, is this layered defense concept, which we very much support, and you see money in the budget this year.

The initial concept, to your point, was to bring in as an underlayer the ability to use, whether it be a THAAD modified potentially with additional boost capability or whether it be an SM–3 IIA missile that we could use in that regard is existing capability that we could bring into the Homeland defense architecture to provide that ballistic missile defense.

But the follow-on to that is, okay, we will understand using that existing capability, but what is the capability we could actually develop that might not be what we need to deploy overseas but we

could use specifically built for our Homeland defense. That gets into the point where the next iteration of the layered defense might be individual weapon systems that are designed to be fielded within the continental U.S. and in Alaska to defend the United States using maybe the technology that is in our current systems but portrayed a different way.

I think all the work that has been done with all of the continental interceptor sites will go into potentially where we could put those, how we do those. So I think it is just part of the information that we now have as we look at this new approach with both the current GBI, the NGIs, this layered defense with the current system, additional system informed by some of the work that we have done to include within your State.

Senator PETERS. Great. Thank you.

Admiral, do you want to add anything?

Admiral RICHARD. Just very quickly. Missile defense is deterrence by denial. We have a very clear national policy on what it is designed for and what it is not designed for, and so everything General O'Shaughnessy just talked about not only allows him to execute his mission responsibilities, but it is a part of the tailored deterrent strategies that I am required by the Nuclear Posture Review to develop. That is precisely the path I think we need to go down. I would throw in sensing is also a key piece as both of us have talked about.

Senator PETERS. One final question. I am the ranking member on the Emerging Threats and Capabilities Subcommittee within this Committee, and one area that I have been focusing on are some of the ethics associated with the military application of artificial intelligence and automation in particular. I know there are a number of ethical concerns related to these weapons. I think the dilemma is represented by the threat that you both identified in your written statements of Russia's nuclear-capable autonomous underwater weapon, the Poseidon. I know what the threat is is all up to debate to talk about.

But if we face time-sensitive threats in the U.S., are we at a tactical disadvantage if we require human involvement in our decision chain where our adversaries may not do that?

General O'SHAUGHNESSY. Senator, I will take that. What I would say is what we have to get away from is what we now have as either the human in the loop or sometimes the human is the loop in some of our systems to a human on the loop. What that will allow you to do is actually make those decisions at the speed of relevance because what can and should be done by machines and by AI and leveraging that will be done by that. But it will identify those key areas where we humans have to be the ones ethically, morally making those decisions. I think human on the loop is a concept we need to apply to leverage that capability while not preventing ourselves from operating at the speed of relevance.

Senator PETERS. Thank you.

Chairman INHOFE. By the way, we have been notified the first vote is underway. So we are going to try to get to everybody here. Let us try to keep our remarks brief.

Senator Hawley?

Senator HAWLEY. Thank you, Mr. Chairman.

Thank you, gentlemen, for being here.

Admiral, let me start with you. As you know, we are the proud home in Missouri of the Whiteman Air Force Base and the B–2 bomber. Let me ask you about the Air Force's budget request and the funding cuts for the B–2 defense management system. Does that decision cause you any concern about the B–2's ability to operate in high end threat environments to the end of its service life?

Admiral RICHARD. Senator, I think it is a great example of some of the difficult decisions that we are going to have to make in trading or balancing near-term risks for long-term risks. Overall, the Air Force is way ahead on the bomber program. Bomber road map I think it is referred to I endorse. I think that is a very thoughtful approach, and the loss of the defensive management system—we will accommodate that risk for the greater gain the Air Force is going to provide overall.

Senator HAWLEY. That sounds like a yes to me. You think that there is a risk that it will. There will be some detriment to its ability to operate in high end capacity.

Admiral RICHARD. There is but I can manage it.

Senator HAWLEY. What else do we need to ensure that the B–2 maintains its ability to operate in those environments if this decision goes forward?

Admiral RICHARD. That is part of the planning that I have to do. So we will use operational mechanisms to compensate for technological abilities of the aircraft. I retain full confidence that the B–2 can do the missions that I will ask it to do.

Senator HAWLEY. Great. Well, I will be following up with you on that.

General, let me turn to you for a second. Russian bombers make regular visits to our coastlines we know. What role would you say that the F–15EX could play in protecting our Homeland against these and other threats in the decades that are coming?

General O'SHAUGHNESSY. One of the things that we do see is it is not only the increasing frequency but also the complexity of how they are maneuvering and the missions that they are flying. Some of it has to do with where we would need to go to intercept them based on the length of their missiles that they carry, the range that the missiles now have. For example, the S–23 is an example of a long-range missile. What that means is we want to intercept them further out. We want to go further so that we can not only get the missiles. We want to hit the bombers so that they never actually get to launch them.

So the F–15EX brings us that. It brings us that extended range that we can get with the F–15EX, as well as a much significant improvement in the number of missiles it can carry. So we see that from a Homeland defense aspect. We see that new platform as being well suited for the Homeland defense role in both our counter-cruise missile defense, our counter-airborne threats such as the Russian bombers.

Senator HAWLEY. Great. That is great to hear.

Admiral, let me come back to you and let us talk a little bit about nuclear policy. Are you confident that Beijing would stick to its announced no-first-use policy if there were a conflict with the United States?

Admiral RICHARD. Senator, I think I could drive a truck through that no-first-use policy.

Senator HAWLEY. Why do you say that?

Admiral RICHARD. In other words, I am not trying to be flippant on a very serious matter. Right? The number of situations where they may conclude that first use has occurred that do not meet our definition of first use—I should back up. They are very opaque about what their intentions are. They are very different from the Russians. We have very little to go on in terms of how they interpret that relative to what we see from the other competitor.

So what constitutes first use? Where might they say we are actually not—that is our territory. Therefore, it does not count as an attack against you.

More broadly, the Soviet Union had a no-first-use policy. I do not think we took great comfort in that either, and so the declaratory policy things are not helpful in my mission area to deter.

Senator HAWLEY. That is very helpful and I think is a great point for those who would advocate a no-first-use policy on our end as to why that that would be I think a very serious strategic mistake.

Let me give you, Admiral, still on the same subject an opportunity to clarify something. A senior U.S. official recently was reported as saying—and I am quoting now—the sole reason the United States has nuclear weapons is to prevent others from using nuclear weapons. That does not seem to be exactly what our declaratory policy is. Can you clarify what our declaratory policy is?

Admiral RICHARD. So the Nuclear Posture Review lays it out very clearly in terms of our strategic capabilities are designed to deter a strategic attack on the United States, which can be nuclear, but I think it wisely acknowledged the fact that it now may be possible to have a strategic attack against our vital interests that is non-nuclear, particularly in space and cyber.

Senator HAWLEY. Right. So we will only consider the employment of nuclear weapons in extreme countries to defend our vital interests or those of our allies or partners, and those circumstances could include, as you just said, significant non-nuclear strategic attacks. Is that correct? Am I getting that correct?

Admiral RICHARD. That is correct.

Senator HAWLEY. Great.

Admiral, I have got another question for you about the W–76 TAC 2. I will submit that for the record because I am about out of time.

Thank you, Mr. Chairman.

Chairman INHOFE. Thank you very much.

Senator Jones?

Senator JONES. Thank you, Mr. Chairman.

Thank you both for your service. In particular, Admiral Richard, as one Alabama native to another, thank you for your service. Alabama is very proud of you and so is the University of Alabama Roll Tide. I just thought I would throw that in real quickly. I know you appreciate that.

The other thing that folks in Alabama are particularly proud of these days is our 117th air refueling wing, which as you know, won the prestigious STRATCOM Omaha Trophy this past year. I want

to take the opportunity to congratulate Colonel Scott Grant, the commander there—he has just done an amazing job—Command Chief Master Sergeant Davis and the other airmen. I think sometimes our National Guard unit is going to get overlooked in the scheme of things, and I so much appreciate them winning that award. It is the first time a guard unit has won that.

Can you talk a little bit about the critical role that the unit plays in the strategic deterrence mission that we have?

Admiral RICHARD. Senator, I just would highlight. That is a very competitive award, and it speaks highly of that wing's ability to compete in that broad a competition.

Air refueling is vital. I am not an airman, but no gas, no bombs, and so it is critical to my mission set for the bomber leg to have adequate tanking capacity. General O'Shaughnessy will tell you here in a second it is equally critical in his areas for Homeland air defense. It is something we pay very close attention to in terms of having capability in the right priority to meet those missions

Senator JONES. Great. Well, thank you.

This past Monday, the President's Budget Request and the briefings that we got indicated that the Air Force intends to divest several aging aircraft, namely 17 B–1 bombers, 16 KC–10 tankers, 13 KC–135 tankers. To replace the tankers, the budget asks for 15 KC–146's, but those are not going to be fully operational for another 3 years.

So with the delay in the operational capability status of the KC–46's, does this in any way—does this divestiture of these legacy tankers pose any kind of threat to the reliable in-air refueling capability of the joint force? I will ask either or both of you that question.

General O'SHAUGHNESSY. I will start, Senator, and say in this year's budget, I think our United States Air Force made some difficult decisions in how do we get to the future faster. This is just one of those decisions where we are trying to divest yourselves of legacy platforms while moving to the future, in this case the KC–46. So while, yes, there will be an impact in the short term to the availability of tankers, we will be able to mitigate our way through that. We still are working closely,. In fact, I talked to the TRANSCOM commander just yesterday about this. I believe we will be able to mitigate that going forward. But it is crucial that we are able to get to the KC–46 and multiple other modern platforms that the Air Force is trying to get to.

Senator JONES. Great. Well, thank you. Thank you both for being here.

Mr. Chairman, in the interest of time, I will yield back. Thank you.

Chairman INHOFE. I appreciate it.

We will now recognize Senator Sullivan. At the conclusion of his remarks, we will be adjourned. Senator Sullivan presiding.

Senator SULLIVAN [presiding]. Thank you, Mr. Chairman.

Thank you, gentlemen, for your service.

General O'Shaughnessy, I particularly appreciate your testimony. It was probably the most comprehensive, insightful description of our strategic interests in the Arctic that I have seen. In your testimony, you say the Arctic is the new front line of Homeland defense.

It sounds like you are saying that the Arctic and Alaska are no longer a sanctuary from which we can safely project power, but it is more of a battle space area. Is that correct? What are the implications from your mindset as the NORTHCOM Commander?

General O'SHAUGHNESSY. That is exactly correct, Senator, and as always, I find myself well aligned with you relative to the importance of the Arctic. It is not only from the strategic location that it is, but now, to your point, it is clearly an avenue of approach to our great nation. As we look at what——

Senator SULLIVAN. That impacts the whole nation.

General O'SHAUGHNESSY. It impacts the whole nation, absolutely.

As we look at now Alaska where—I will just use the Russian long-range aviation. Whether it be hypersonics or whether it be the cruise missiles that can be launched from that long-range aviation, we clearly see that avenue of approach as being critical. So we have to, one, have awareness of what is going on in that space, and then we have to be able to defend in that space. The time that will be required to respond is short because of the pure geography.

I think what we really need to think about in Alaska is how do we invest to have that domain awareness, having the right sensors and ability to understand what is happening, but also the ability to defend immediately and what are the systems that we could invest in that would allow us to have that persistent defense in Alaska because it is key terrain that will be important to us as a nation in any conflict whether that be with Russia or China going forward.

Senator SULLIVAN. Thank you.

Let me go on to a little bit more detail. You know, it seems from whether it is Secretary Pompeo's speech in Finland at the Arctic Council, major publications like The New York Times, 60 Minutes—you know, there is a lot of discussion about the great power competition in the Arctic. I appreciate Senator King highlighting that in his questions for you.

You know, unfortunately, this Committee has observed that the Pentagon is the organization that sometimes seems the furthest behind, with the exception of certainly your great advocacy, General O'Shaughnessy.

In your personal opinion and the advocate for the capabilities in the region, what specific capabilities are you advocating for to ensure that we can both protect the Homeland in these avenues of approach that you talked about, but also to continue to project power from Alaska to not just PACOM but EUCOM, STRATCOM? And if you can talk on JPARC and even OCONUS KC–46 deployments, that would be helpful as well, in terms of capabilities.

General O'SHAUGHNESSY. Thank you, Senator.

First, I would say we have to complete the next generation interceptor. We have literally holes in the ground right now that we need to fill with capabilities. So we need to bring that left, and we need to bring that as fast as possible.

We need to augment that with additional ballistic missile capability that we could put in Alaska, whether that be SM–3 IIA's, whether that be potentially THAAD deployments there. We need to bring that into Alaska. We need a sensing capability that will be

persistent, that will be steady state, that will always be there. We have the technology today. We just have to deploy it to Alaska.

The second thing I think we need—and I would applaud the Air Force for moving the additional fifth generation aircraft, the F–35's, to Eielson. It is now truly the fifth generation center of excellence, and therefore, you need a place to train. I think continued investment in the JPARC range is critically important not only for fifth gen, but for the Arctic, and Arctic Edge upcoming exercise we have with great participation—for example, from the marines—I think is critically important because the joint force needs to train in Arctic conditions.

I make the observation that we can deploy a force anywhere, all over the world, and we can train that force very quickly and have them out the door in a matter of days. You cannot do that to the Arctic. If you are not training, if you do not have the right equipment, and if you are not versed in operating in the Arctic, you will not effectively be able to operate there. Our adversaries are operating there, and therefore, we need to be able to operate there as well. To your point, it is now a battle space, and so we need to be able to operate in Alaska in the Arctic in cooperation with Canada from the NORAD side.

I think continued investment. The tankers are important because it is a strategic place where you can actually get to the European theater quicker than you can even get to the South China Sea from Alaska. Therefore, having that as a center where we have robust tankers is important, as well as the entire joint force I think just continuing to be able to operate.

Senator SULLIVAN. The Secretary of Defense said that if you collocated the over 100 fifth generation fighters that we are going to have in Alaska with the OCONUS deployment of KC–46's, it would show that our adversaries—that we would have extreme strategic reach whether in PACOM or EUCOM. Do you agree with that?

General O'SHAUGHNESSY. I do believe there is a powerful synergy of bringing together the fifth generation with additional and modern day tanker capability.

Senator SULLIVAN. Let me ask one final question for both of you. Actually just two real quick ones.

In our office call, you talked about your number one unfunded priority for some type of space-based communications for the Arctic. Can you just briefly touch on that?

General O'SHAUGHNESSY. Thank you, Senator, for allowing us to highlight that.

One of my main concerns in the Arctic is communication. Basic communication that we normally use satellites for becomes challenged above about 65, even harder above 70.

One of the things we find is the commercial technology is there, and so we have been working with commercial companies over the proliferation of LEO and finding ways that we might be able to bring that ability to have essentially broadband connectivity anywhere, for example, within Alaska. That is a huge implication for us to be able to operate if we can connect the force in areas that today we cannot connect the force even through our commercial partners.

Whether it OneWeb or whether it is Starlink, we think, for example, in some of our partnership with Starlink over the last several experiments that we have done, for example, at Eglin where we are able to show our ability to connect that force with their satellites—this is not hypothetical. This is satellites that are in orbit today.

Senator SULLIVAN. But it is your number one unfunded priority because that is not just protecting the comms in the Arctic. That protects the whole Homeland in terms of the avenue of approach concern that you talked about.

General O'SHAUGHNESSY. That is exactly right, Senator. It is my number one priority to have Arctic coms, and I think the proliferation of LEO and a Starlink or a OneWeb type solution is the way to get it fastest.

Senator SULLIVAN. Final question for both you, gentlemen, and it is a just a quick answer on this. But I have been frustrated with Under Secretary Griffin. You know, I think we are seeing really smart guys in the Pentagon making dumb decisions. Let me give you one. It was already briefly touched on.

This Committee has worked really hard in a bipartisan way with the administration fully supporting it to build up our missile defense. There has now been a decision recently, despite the fact that we just built 20 new silos at Fort Greely, to make those empty for the next 10 years. I cannot think of something that is unequivocally more—well, that is just going to harm our readiness in terms of missile defense. I mean, there is no dispute about that. 20 empty silos for 20 years.

How do we fix that gap, fill that, and correct what to me seems like just kind of a boneheaded decision at the upper levels of the Pentagon?

General O'SHAUGHNESSY. Senator, first I will say that the unfortunate decision to cancel the RKV was the right decision that was made at that time——

Senator SULLIVAN. But do you agree to have 20 empty silos for 10 years?

General O'SHAUGHNESSY. No, sir. What I am very dissatisfied with is it is going to take us 10 years to actually produce the next generation interceptor. We have been working very closely with MDA and Dr. Griffin personally. I met with him on Monday, and I am pleased to announce that we are going to bring this left. The way we will have to do that is we will have to find some trade space, but we have to put time as an important part of this because our adversaries are not waiting. Our adversaries are building capability and capacity, and so we have to be able to respond. So we are going to insert time into this so that we are going to have trade space developed so we can bring missiles to put, interceptors to put into those holes sooner.

Senator SULLIVAN. Thank you.

Admiral, any views on that?

Admiral RICHARD. I would just say that General O'Shaughnessy described that very well. We both have a role in setting the requirements for missile defense. Those requirements are valid, and General O'Shaughnessy just laid out how we are going to meet those.

Senator SULLIVAN. Well, I believe this Committee will be supportive of any role that we can play in support to help fill that gap, which I think is important for the nation's missile defense overall.

Thank you very much, gentlemen. We all appreciate your testimony.

This hearing is now adjourned.

[Whereupon, at 10:57 a.m., the Committee adjourned.]

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR TOM COTTON

COUNTER-UAS [UNMANNED AERIAL SYSTEMS]

1. Senator COTTON. Admiral Richard, what are STRATCOM's defined counter-UAS requirements for the services to provide capability against current and future threats?

Admiral RICHARD. Protect vital national security assets by detecting, identifying, tracking and defeating UAS threats.

Attribution is another critical requirement in countering the UAS problem. We must boost the ability to attribute "left of launch" activities in order to truly stop the threat and achieve effective deterrence. A successful effort will involve whole-of-government, to include the Department of Homeland Security (DHS), the Federal Aviation Administration (FAA), Intelligence Community, and the Federal Bureau of Investigation (FBI) working together with DOD in the Homeland.

2. Senator COTTON. Admiral Richard what counter-UAS capabilities are fielded today and how effective are they against the current threat? Are you confident our strategic capabilities are defensible?

Admiral RICHARD. Our counter-UAS (C–UAS) capabilities include kinetic and non-kinetic measures. Current C–UAS systems have had limited success; however, DOD is working to develop and field more effective capabilities. While there are challenges for C–UAS systems, I am confident we are on the right path to enhance the protection of our strategic assets. However, as mentioned above, we must not focus just on the defeat, we must also present an effective deterrent which is achieved through attribution.

3. Senator COTTON. Admiral Richard what capabilities are in the acquisitions process for the future and how long will it take until they are IOC? Are you confident our strategic capabilities will be defensible in the future?

Admiral RICHARD. The services are exploring multiple kinetic and non-kinetic C–UAS capabilities, and are considering emerging threats such as swarms, pre-programmed control of UASs, and other control technologies like Wi-Fi. The United States Army has been identified as the C–UAS Executive Agent (EA); I would defer to them for specific programs and Initial Operational Capability (IOC) dates. I am confident they will facilitate necessary service development to effectively defend strategic capabilities.

Additionally, over the last year, we have worked directly with OSD through the Senior Integration Group and now the EA at multiple levels, to address the issue of attribution and "left of launch" activities to achieve effective deterrence. We are also in the process of advocating inclusion of the concepts of attribution and deterrence within the overarching EA C–UAS Strategy.

4. Senator COTTON. Admiral Richard are you aware of any counter-UAS capabilities or innovations that might be available, but cannot be purchased because they do not specifically fall within defined requirements for a current program of record? If they exist, what would it take to be able to purchase those capabilities?

Admiral RICHARD. Purchasing C–UAS capabilities does not appear to be hindered by bureaucratic procedures; the problem lies in the significant challenge of rapidly developing effective technological solutions to pace the threat. I defer to the EA to execute the evaluation and acquisition process for C–UAS innovations that do not fall within defined requirements for a current program of record.

5. Senator COTTON. Admiral Richard can you quantify what you are losing by not having the ability to buy off-the-shelf Counter-UAS technology that is ready today? Are U.S. strategic assets at greater risk because of our bureaucratic processes?

Admiral RICHARD. While UASs pose an identifiable risk to our strategic assets, the DOD has an established process to gain approval to purchase off-the-shelf C–UAS equipment. The Services, led by the EA, are focusing appropriate resources and proactively developing C–UAS layered defense and interoperable technologies in response to the threat. I am confident in the EA's ability to streamline the acquisition process for fielding required C–UAS capabilities.

6. Senator COTTON. Admiral Richard do you believe current acquisitions processes will yield counter-UAS capabilities in time to defend against future threats?Would the answer change if you were able to make iterative adjustments to current programs of record?

Admiral Richard if our current processes can take a decade to get you counter-UAS capability, how do you plan to keep up with new technological threats?

Admiral RICHARD. I am confident the Army EA is addressing C–UAS requirements as rapidly as possible to meet existing and future threats. The EA is working with the Services to compress the timelines needed for modifying current C–UAS equipment to address the changing threats and capability gaps.

QUESTIONS SUBMITTED BY SENATOR MIKE ROUNDS

NORTHCOM / STRATCOM

7. Senator ROUNDS. Admiral Richard and General O'Shaughnessy, electromagnetic spectrum plays a critical role in many DOD missions. Can you describe some of the ways that STRATCOM and NORTHCOM rely on spectrum to support their missions? What are some of the future spectrum warfighter needs that will be essential to competing with Russia and China on a future battlefield?

Admiral RICHARD. USSTRATCOM is highly dependent on the electromagnetic spectrum (EMS) to provide Strategic Deterrence and deliver Decisive Response, if necessary. Every aspect of our mission—from sensor to shooter communications to data management and information flow—requires EMS access to meet deterrence objectives.

Our adversaries have observed America's dominance on the battlefield and view our reliance on the spectrum as a vulnerability. They organize, train and equip forces to engage and maneuver within the EMS to gain military advantage. They are investing heavily to counter our radar, navigation, communications, and data link capabilities, and our technological advantages are eroding.

We must develop future redundant electronic protection systems and resilient capabilities to counter the growing EMS threat. Additionally, we must continue efforts to develop an Electromagnetic Battle Management (EMBM) system that dynamically characterizes the EMS Operational Environment (EMOE), provides near real-time situational awareness, decision support, and command and control capabilities.

General O'SHAUGHNESSY. The electromagnetic spectrum serves a vital role in USNORTHCOM's missions and operations across our Area of Responsibility (AOR). USNORTHCOM relies on spectrum-dependent systems to provide command and control; voice and data communications; intelligence, surveillance, and reconnaissance (ISR); advanced threat detection and targeting systems; electronic attack and electronic protection; and battlefield situational awareness and protection.

Military operations in the future will see a widespread use of battlefield sensors, radars, and cloud-based systems leveraging advanced quantum computing, artificial intelligence, and machine learning for near real-time assessment and decision making. In light of this, we must be able to continue to operate through a congested, constrained, and contested spectrum environment for effective operations.

8. Senator ROUNDS. Admiral Richard, STRATCOM is the combatant command responsible for the advocacy and coordination of joint electromagnetic spectrum operations in the Department of Defense, which requires the accounting and deconfliction of DOD, civilian, and adversary use of electromagnetic spectrum.

What is STRATCOM's role in coordinating spectrum use by DOD and civilian entities? In your opinion, is the Department well-postured to share spectrum currently reserved for DOD use—does the Department have the appropriate modelling tools, capabilities, and policies to allow for spectrum-sharing with commercial telecoms?

Does STRATCOM possess the required visibility into DOD, civilian, and adversary systems' use of electromagnetic spectrum to enable the Department's electronic warfare operations?

Admiral RICHARD. All warfighting domains fundamentally rely on the electromagnetic spectrum. The DOD CIO serves as the lead for coordination, approval, and

representation of departmental positions on all spectrum matters within the U.S. Government and in regional, national, and international spectrum management forums and organizations.

USSTRATCOM's role is to advocate on behalf of CCMDs to ensure they have the capabilities necessary to maneuver in the electromagnetic spectrum, and the ability to train and exercise in operationally representative environments.

Historically, the DOD, other government agencies and industry have viewed the spectrum in terms of exclusive blocks of airwaves off limits to one another. Improvements in spectrum sharing technologies are needed to enable real-time spectrum access by all EMS users. These technologies, when combined with modeling tools and policies, will facilitate the means to dynamically share spectrum and enable DOD operations at the same time in the same slice of airwaves.

Dynamic sharing and the ability to maneuver in the spectrum requires the ability to monitor and understand an increasingly congested and contested electromagnetic operational environment. Electromagnetic Battle Management will be a key element of the Department's future Joint All Domain Command and Control (JADC2). Until this capability is developed and implemented, our ability to characterize spectrum use at the level required to deconflict DOD and civilian EMS use will remain a challenge.

We must continue to invest in personnel and technologies to enable Joint EMS Operations (JEMSO) from the tactical through Joint Task Force and combatant command levels. Maintaining a warfighting advantage requires superiority in the electromagnetic spectrum.

9. Senator ROUNDS. Admiral Richard, mid-band spectrum, particularly between 3 gigahertz and 4.2 gigahertz where DOD operates many of its systems, has been widely discussed as important for commercial 5G implementation. NTIA recently released an initial report with DOD that found that it would be possible to do real time spectrum sharing that would protect the critical DOD systems that reside in this band, while providing attractive opportunities for commercial businesses. What are some examples of DOD systems in this area that support your missions? What will be some of the challenges and opportunities toward evaluating potential real time spectrum sharing of this band?

Admiral RICHARD. Examples of systems in this spectrum range are Aegis SPY radars for the missile defense mission and some commercial SATCOM used by DOD for mission accomplishment. The Services (as capability providers), in conjunction with DOD CIO and the Joint Staff, evaluate challenges and opportunities in potential real time spectrum sharing.

However, large high-power systems such as the Aegis SPY radar would be challenged to share spectrum real time while continuing to perform as designed for their mission. SATCOM, on the other hand, can provide specific channels in the spectrum to support some USSTRATCOM mission needs.

A lack of advanced EMS modeling and simulation capability limits the ability to evaluate potential spectrum sharing implications. The ability to rapidly map radio frequency systems with their parametrics—frequency, signal characteristics, spatial impacts, and mission purpose—would allow better frequency use comparisons for spectrum sharing considerations.

QUESTIONS SUBMITTED BY SENATOR THOM TILLIS

INSTALLATION SECURITY

10. Senator TILLIS. General O'Shaughnessy, what proactive measures have you implemented to enhance force protection measures on our military installations to reduce the threat of terrorist attacks against DOD personnel and their families?

General O'SHAUGHNESSY. We continually assess the threat and adjust our protective posture to mitigate, reduce vulnerability, increase community awareness, and prepare for a rapid response to heightened threat conditions. We work closely with federal law enforcement agencies and have Federal Bureau of Investigation representatives assigned to our Headquarters. Commanders at all echelons are empowered to implement additional supplemental, site-specific actions to achieve a measured and sustainable protective posture consistent with our force protection priorities.

ILLICIT TOBACCO TRADE

11. Senator TILLIS. General O'Shaughnessy, what impact has the increase of Mexican troops on the southern Mexican border have on illicit tobacco trade?

General O'SHAUGHNESSY. We partner with Mexico's Army and Navy (to include the Naval Infantry) to build ground-based and maritime capacities to enhance Mexico's ability to secure its Southern Border. While these military capacities are sometimes applied to operations in support of civil authorities, we do not focus our capacity development efforts to counter the trafficking of any specific commodity.

MISSION READINESS

12. Senator TILLIS. General O'Shaughnessy, what issue(s) have the greatest impact on your mission readiness?

General O'SHAUGHNESSY. The rapid advancements of our adversaries, particularly in the areas of precision missiles, cyber, and increased maritime activity, present a challenge to our defensive capabilities. Adversary advancements in ballistic missile, hypersonic glide vehicles, and cruise missile capabilities, combined with increasing evidence of adversary intent, challenge our ability to detect, defeat, and deter aggression. Ever-increasing cyber threats also target our nation's infrastructure and add to the complexity of the threat environment.

13. Senator TILLIS. Admiral Richard, what issue(s) have the greatest impact on your mission readiness?

Admiral RICHARD. [Deleted.]

PERSONNEL ISSUES

14. Senator TILLIS. Admiral Richard, your command's mission demands expertise in highly technical and scientific fields, what challenges in terms of recruiting and retention concern you, and how do you intend to approach them?

Admiral RICHARD. The Services undertake the bulk of recruiting efforts, evaluate retention incentives and track the skill sets needed to support our mission requirements. We work closely with them to ensure appropriate workforce strategic deterrent expertise remains available for our missions.

The competitive marketplace for technical and scientific talent presents many recruitment challenges. With a robust economy, hiring officials face fierce competition with our private sector competitors. An additional challenge is the inability to secure job offers pending security clearance adjudications, which can take several months. Highly talented candidates either move on or lose interest while waiting for their clearance before a firm offer can even be made. Our workforce is multigenerational and we face the challenge of a large segment at, or nearing, retirement eligibility.

Attracting and recruiting a highly talented workforce entails a three-pronged approach:

- First, we are utilizing our academic alliance to drive force renewal through student internship and recent graduate program opportunities. These initiatives can lead to full-time positions creating a pipeline of talent acquisition and succession. These programs provide outreach and partnership opportunities with educational institutions to brand USSTRATCOM as a premier employer.
- Second is the use of all available Direct Hiring Authorities (DHA) that apply to USSTRATCOM. This enhances our ability to offer non-competitive opportunities for critical talent in high-demand fields such as Information Technology. DHA also provides opportunities for community outreach with business leaders, chambers of commerce and the wider public, to market immediate USSTRATCOM employment opportunities through venues such as social media and electronic job boards.
- The third focus is the continued development, training, education and mentoring of our current workforce talent.
- Additionally, USSTRATCOM will continue to sustain and foster a climate that inspires; promotes and values trust; focuses on diversity and inclusion; continues to offer training and development opportunities; and maintains a sincere quality of life focus for the workforce. There are also numerous resources available to USSTRATCOM geared to retaining a high-quality workforce, including recruitment, retention and relocation bonuses, performance incentives, flexible work schedules, a modern command facility, and a multitude of training and development opportunities.

COMMAND TRANSITION

15. Senator TILLIS. Admiral Richard, have any significant issues occurred during the transition of the responsibility of space operations from STRATCOM to United States Space Command (SPACECOM) following the establishment of United States

Space Command last year? What is the current status of this transfer of space responsibilities?

Admiral RICHARD. None to date. From the beginning, USSTRATCOM has been fully committed to providing the support required for USSPACECOM success. We expect this process to continue until USSPACECOM reaches full operational capability. All space related UCP responsibilities have been transferred to USSPACECOM.

QUESTIONS SUBMITTED BY SENATOR DAVID PERDUE

ABMS

16. Senator PERDUE. General O'Shaughnessy, I understand that the Air Force plans to conduct tests of ABMS every 4 months, with the next test occurring in April 2020. Given that the Air Force has primary responsibility to develop ABMS, how do you characterize NORTHCOM's specific role in the development of this system?

General O'SHAUGHNESSY. NORAD and USNORTHCOM are partnered with the Air Force on the Advanced Battle Management System (ABMS) to provide an operational, bi-national, and joint perspective and support for further development of an adaptive joint all-domain command and control capability in support of defending the Homeland. Due to COVID–19, the April 2020 test has been delayed until late summer; exact date is pending.

Domain awareness, Joint All-Domain Command and Control (JADC2), and defeat capabilities that are developed for peer-level Homeland defense threats must go beyond customized single-threat, one-Service solutions, and instead be developed collaboratively by the Joint Force to address a range of threats. The ABMS and JADC2 align well with our understanding of both the all-domain operational environment and the decision superiority required for a capable defense of the Homeland. The range of threats to the Homeland creates an urgency to develop the JADC2 system that we need for the future and the rapid development cycle for ABMS aligns with that urgency.

17. Senator PERDUE. General O'Shaughnessy, how does NORTHCOM's role compare to the role other COCOMs have in the development of ABMS?

General O'SHAUGHNESSY. Due to the urgency of threats facing the Homeland, USNORTHCOM embarked on a campaign of rapid field prototyping and partnership with industry to further advance our Homeland defense capabilities. Our prototyping efforts last year were extremely successful and aligned well with the vision of combatant command-led Advanced Battle Management System (ABMS) demonstrations every 3 months.

We were excited to take operational lead for the ABMS Demonstration #1 in December 2019 and are partnered with United States Space Command for ABMS Demonstration #2 in 2020. We're looking forward to working with other combatant commands for future ABMS demonstrations to globally integrate the ABMS development efforts within the Department of Defense.

18. Senator PERDUE. General O'Shaughnessy, recent reports indicate that senior Army leaders have expressed reservations about ABMS. The Army Chief of Staff called the system "Air-centric". Additionally, the chief of the Army's Futures & Concepts Center said, "ABMS cannot be the sole solution, because it doesn't account for, in some cases, the scale of unique requirements of all the other services." I understand that an Army unit was also involved in December's ABMS demonstration. To what extent was Army leadership involved in designing and planning the December demonstration of ABMS?

General O'SHAUGHNESSY. The Army and Marine Corps partnered closely with the Air Force over the past year to develop joint fires capabilities that now have a central role in the Advanced Battle Management System (ABMS). In the December 2019 ABMS Demonstration, we worked closely with the Army and leveraged their capability to showcase command and control connections to an Army High-Mobility Artillery Rocket System unit, which conducted a simulated strike on a target generated by the ABMS. We also integrated an Army Air Defense Artillery Sentinel Radar system for detection and tracking of airborne threats, while connecting an Air Force Special Operations Command ground unit to demonstrate individual-level connectivity.

During the ABMS Demonstration #2 in 2020, we anticipate the Army's participation in ABMS will grow considerably from their partnership in development of

events on two of their major test ranges, Yuma Proving Ground and White Sands Missile Range, as well as increased connections to Army Fires units. Additionally, we are working closely with Army Futures Command to integrate its Integrated Air and Missile Defense Battle Command System capability into the Air Force's ABMS.

19. Senator PERDUE. General O'Shaughnessy, what will be the Army's involvement in future demonstrations?

General O'SHAUGHNESSY. I believe the Army's participation in future demonstrations is critical. NORAD and USNORTHCOM are currently working to integrate Army Futures Command emerging capabilities and infantry unit-level connectivity into the Air Force's Advanced Battle Management System (ABMS), along with expanding Integrated Air and Missile Defense Battle Command System connectivity. Ultimately, the Army's capabilities play an important role in development of a joint system-of-systems architecture where any sensor connects to the best shooter at every command and control node.

20. Senator PERDUE. General O'Shaughnessy, in Georgia, our Air National Guard JSTARS operators are highly-trained and mission-capable, and I believe that these operators can provide critical assistance as ABMS continues its testing and demonstrations. To that end, I am pleased that the Air Force has invited the 116th and 461st Air Control Wings of the Georgia Air National Guard to the April demonstration of ABMS. In your view, to what extent will current Air National Guard JSTARS operators improve your ABMS demonstrations and testing?

General O'SHAUGHNESSY. We are working closely with operators from the 116th and 461st Air Control Wings to further develop the operational concepts for the Advanced Battle Management System (ABMS). Our Blue Force team for ABMS Demonstration #2 will contain two Air Battle Managers (ABMs) from Robins AFB. In line with the Air Force's efforts to develop a multi-domain operator career field, we will work with the ABM community to create joint warfighters who can effectively operate across all domains simultaneously. The airmen from Robins AFB, along with others from the ABM community, bring valuable expertise that can be used to design and build the Joint All-Domain Command and Control system to ensure our competitive advantage against peer adversaries in the future.

QUESTIONS SUBMITTED BY SENATOR JOSH HAWLEY

SUBMARINE SURVIVABILITY POST-W76–2 MISSILE LAUNCH

21. Senator HAWLEY. Admiral Richard, some have argued that firing a missile with the W76–2 would leave the firing submarine vulnerable to attack. Do you have any concerns about our forces' ability to safely perform split launches?

Admiral RICHARD. Introduction of the W76–2 has not changed the operating patterns or objectives assigned to SSBNs and does not introduce any new vulnerabilities to the force. Our submarine force has trained extensively for decades and continues to train for this scenario, and I have full confidence that, if directed, they can and will successfully execute such a mission.

QUESTIONS SUBMITTED BY SENATOR JACK REED

METRICS FROM MILITARY DEPLOYMENT TO THE SOUTHWEST BORDER

22. Senator REED. General O'Shaughnessy, as I mentioned in my opening statement, I remain concerned with the military utility of the ongoing deployment of active duty forces to our southern border. Active duty troops are currently manning Mobile Surveillance Camera (MSC) stations owned and deployed by CBP. Could you tell us how many migrants active duty and guard troops have encountered or detected while manning the MSCs, and if so, where exactly have they been encountered between legal points of entry?

General O'SHAUGHNESSY. As of 27 May 2020, title 10 forces have detected 21,069 migrants in fiscal year 2020. Military personnel encountered a total of 780 migrants during that same timeframe. Of these, 128 were encountered by title 10 forces, and 652 were encountered by title 32 forces. These encounters were near El Centro and San Diego, CA; Tucson, Nogales, Ajo, and Yuma, AZ; Laredo, Del Rio, El Paso, Rio Grande City, McAllen, Weslaco, Harlingen, Brownsville, and Fort Brown, Texas.

QUESTIONS SUBMITTED BY SENATOR RICHARD BLUMENTHAL

TROOPS AT THE BORDER

23. Senator BLUMENTHAL. General O'Shaughnessy, can you please provide this Committee an update on U.S. Military operations at our southern border?

General O'SHAUGHNESSY. We are assisting the Department of Homeland Security and U.S. Customs and Border Protection (CBP) in four mission areas: 1) operating mobile surveillance camera assets for detection and monitoring, 2) operational support such as motor transport maintenance, heavy equipment operations, and crisis response force capabilities, 3) infrastructure support, to include barrier and fence repairs, and 4) aviation support, to include light and medium rotary-wing, fixed-wing, and unmanned aircraft systems. To maximize our direct support to DHS, our command and control structure is geographically-aligned with CBP sectors.

24. Senator BLUMENTHAL. General O'Shaughnessy, what are the current troop levels at the southern border?

General O'SHAUGHNESSY. As of 27 May 2020, there are 5,559 DOD personnel supporting the southwest border operations. Of those, 3,112 are title 10 and 2447 are T32 forces.

25. Senator BLUMENTHAL. General O'Shaughnessy, can you provide an updated cost estimate for troop deployments for fiscal year 2019 and quarter 1 fiscal year 2020?

General O'SHAUGHNESSY. I defer to the DOD Comptroller. The Services and DOD Comptroller capture costs associated with DOD support to our southwest border operations.

26. Senator BLUMENTHAL. General O'Shaughnessy, can you tell us what resources—if any—have been diverted to execute this mission?

General O'SHAUGHNESSY. The Joint Staff, in coordination with the Services, determines sourcing solutions of units supporting the southwest border mission. Two USNORTHCOM-allocated units have elements dual-purposed for southwest border support, meaning they can be diverted to another mission if required by a higher priority tasking. The first is the Aviation Brigade assigned to the Defense Chemical Radiological Force that is providing 10 UH–60 aircraft in support of DHS. The second is the Military Police Battalion assigned as the Homeland defense quick reaction force while also serving as part of the crisis response force for southwest border support. If a higher priority mission requires either of these forces, they can be diverted to that mission.

27. Senator BLUMENTHAL. General O'Shaughnessy, are there any unique capabilities that the military is providing the Department of the Homeland Security that they cannot provide organically?

General O'SHAUGHNESSY. No. The support DOD provides to the Department of Homeland Security is not unique to DOD. However, DOD is providing support with capabilities and capacity that DHS lacks.

28. Senator BLUMENTHAL. General O'Shaughnessy, what is the criteria for withdrawal of troops from the border?

General O'SHAUGHNESSY. The Secretary of Defense determines whether to support requests for assistance from Department of Homeland Security (DHS) and Customs and Border Protection (CBP). DHS currently does not have sufficient resources to meet all of their requirements on the southwest border.

29. Senator BLUMENTHAL. General O'Shaughnessy, last year—as the Operational Commander when troops were initially deployed to the border—you said that you felt that your perspective was considered in the decision making process. What is your perspective now, and what is your current recommendation to this Committee on the deployment of active duty troops to the southern border?

General O'SHAUGHNESSY. I continue to believe border security is national security and that effective security reduces threats to the Homeland. While Homeland defense remains the core mission for USNORTHCOM, we are providing military support to the Department of Homeland Security to help fill their gaps on the southwest border.

30. Senator BLUMENTHAL. General O'Shaughnessy, what feedback are you getting from subordinate Commanders on the impact of border deployments on mission readiness and concurrent deployment commitments?

General O'SHAUGHNESSY. Deployments can have both positive and negative readiness consequences. Feedback received through subordinate component channels and deployed units indicates they have been able to conduct some individual-level training to help maintain or increase readiness levels.

31. Senator BLUMENTHAL. General O'Shaughnessy, have these deployments compromised readiness in the force providing services and units?

General O'SHAUGHNESSY. As a combatant commander, I am a consumer of Service readiness. Monitoring and evaluating force readiness is a Service responsibility. That said, we continually seek ways to mitigate readiness impacts. We have been able to keep some units at home station, which enables them to maintain readiness and conduct normal training. For example, by dual-tasking aviation units for both detection and monitoring as well as crisis response force missions, pilots are able to fly and maintain proficiency vice standing alert. Marine Corps units are rotating more frequently so that they are able to conduct normal unit training at home station. All of these actions help to mitigate impacts to Service readiness.

ELECTRO MAGNETIC SPECTRUM/CYBER MANAGEMENT AND MISSILE DEFENSE

32. Senator BLUMENTHAL. Admiral Richard, your testimony highlights our need to remain focused on hardening missile defenses and our strike capability in respect to non-kinetic threats, specifically those that exist in cyber space or along the electromagnetic spectrum. You stated that, "Our adversaries have observed our use and dependence on the Electro Magnetic Spectrum, and have developed and organized their forces to achieve Electro Magnetic Spectrum superiority; it is essential we develop capabilities and appropriately organize to counter this threat. " How are you testing and hardening your networks and lines of communication that allow you to provide critical missile defense, deterrence, and strike against an enemy who has specifically designed offensive capabilities to deny ours?

Admiral RICHARD. Our testing and certification process for Electro-Magnetic Pulse protection implements established DOD standards, which include system level, threat-relatable test protocols. We track the status of these assets and publish a report annually. Infrastructure improvements require testing and validation as well as periodic revalidation against threat relatable test protocols in order to maintain their certified status. For example, the upgraded test facility at Patuxent River NAS is expected to resume operations later this fall and the Air Force recently executed a long anticipated test on a B–52 this past January.

33. Senator BLUMENTHAL. Admiral Richard, can you speak to the relationship you have with CYBERCOM and the information sharing mechanisms that exist to communicate and respond to a non-kinetic attack—be it electronic warfare or cyber—on our missile defense architecture or our strike capability?

Admiral RICHARD. USSTRATCOM communicates with CYBERCOM on a continuous basis during steady-state operations and in crisis situations. USSTRATCOM's Cyber Operations Integrated Planning Element (COIPE) is provided to us by CYBERCOM specifically for the purpose of facilitating coordination and information sharing between our combatant commands. The COIPE collaborates on any intelligence or observations from the field that potentially indicate a threat in and through cyberspace to our critical mission systems, including our missile defense and strike capabilities.

34. Senator BLUMENTHAL. Admiral Richard, can you highlight how you interact with NORTHCOM and NORAD on missile defense in this regard?

Admiral RICHARD. From a cyberspace perspective, the same interaction and relationships exist with NORAD/NORTHCOM as they do with CYBERCOM. We have an extensive amount of shared mission space with NORTHCOM when it comes to the Missile Defense System and we have processes in place to accomplish the mission.

Day-to-day, our Joint Cyber Center and Cyber Operations Integrated Planning Element collaborates with their counterparts at NORAD/NORTHCOM and other combatant commands to stay current on any known or anticipated threats. We also receive updates from CYBERCOM and the Intelligence Community via multiple secure information sharing systems.

During a crisis, we are able to coordinate operational control and direct the activities of organic cyberspace defense forces within each of our Commands. If the de-

mand for defensive capability exceeds our capacity, we work with CYBERCOM to request additional support or more specialized forces. In this situation, USSTRATCOM would be working closely with NORAD/NORTHCOM to ensure we are not duplicating effort and are maximizing our defensive capability on critical mission systems.

35. Senator BLUMENTHAL. Admiral Richard, you are responsible for coordinating global missile defense planning with other combatant commands, services, and agencies that employ our Nation's missile defense capabilities. Can you expand on the maintenance of these complex relationships?

Admiral RICHARD. We maintain these relationships through constant outreach and regular interaction with other combatant commands. We provide regional combatant commands recommendations in areas such as defense duration, defense sufficiency, allied/partner missile defense integration, and risk to the global force through the Missile Defense Executive Board (MDEB) and its associated subordinate groups to include the Operation Forces Standing Committee (OFSC). Our independent analysis informs combatant command operational plan updates and assists in their Integrated Priority List development.

Additionally, we provide support to the Chairman regarding Global Force Management and other assessments such as the Capabilities Gap Assessment and the Annual Joint Assessment.

36. Senator BLUMENTHAL. Admiral Richard, how often you conduct exercises to stress test these relationships and lines of communication?

Admiral RICHARD. USSTRATCOM exercises all mission areas while simulating the need to conduct these missions in a denied and degraded cyber, space and EMS environment at least twice a year in our global series Tier 1 exercises (Global Thunder and Global Lightning). Additionally, we also exercise USSTRATCOM missions in support of other combatant command exercises while simulating these same contested EMS conditions.

Our Global Storm exercises allow us to focus on specific objectives and procedures for operating in a contested EMS environment; these are conducted several times a year. During the last year we also conducted over 380 short duration (3–4 hour) training events which focus both inside USSTRATCOM and with other commands; these proficiency events test our battle staff members on various facets of command control.

Finally, we have specific weekly exercises with combatant commands involving challenging ballistic missile scenarios to test and stress interactions and lines of communication.

All of these numerous exercise opportunities improve our ability and readiness to successfully operate in future conflicts.

37. Senator BLUMENTHAL. Admiral Richard, in your current configuration and architecture, which area presents you with the greatest challenge to meeting the National Defense Strategy's intent: deterrence, detection, or strike?

Admiral RICHARD. All of these areas are necessary, and all are challenged. We now face multiple actors across all domains who constitute a strategic threat to the United States, our allies and partners and we must recapitalize the capabilities associated within all areas that underpin our ability to meet National Defense Strategy objectives.

While the problem has become more complex, the conceptual foundations of strategic deterrence remain sound, and we must continue the development of the next generation of deterrence experts. Likewise, the detection capabilities we employ today are the best in the world, but we must design and deploy the advanced measures, such as space-based capabilities, required to address emerging threats such as hypersonic weapons.

Finally, our strategic strike capabilities are safe, secure and ready, but they are rapidly approaching end of life. We must recapitalize our command and control architecture, each leg of the nuclear triad and continue development of our conventional hypersonic strike capability.

38. Senator BLUMENTHAL. Admiral Richard, what would you like congress to pay attention to so we can better support your mission?

Admiral RICHARD. I thank Congress for your continuing support of USSTRATCOM's missions. An on-time budget ensures defense programs arrive on time and are available to meet our warfighting requirements. Continuing resolutions delay new program starts and impact critical programs such as the *Columbia*-class SSBN from fielding when required.

ELECTION SECURITY

39. Senator BLUMENTHAL. General O'Shaughnessy, in your advanced testimony you talk about your efforts to open up lines of communication and integrate the numerous agencies involved in the defense of the Homeland from both kinetic and non-kinetic threats. You specifically mentioned that in December 2019, USNORTHCOM hosted a cyber-forum that addressed election security and brought together all the participating commands, departments, and agencies to ensure that you, "are aligned and ready to defend our networks, critical infrastructure, and our democratic processes." This is an overlap of several issues I am deeply concerned about—the protection of the privacy of our citizens, the infrastructure that keeps our economy running, and the democratic institutions and election infrastructure that will allow American voices to be heard in 2020. Can you expand upon the cyber-forum that addressed election security, and your key takeaways for NORTHCOM?

General O'SHAUGHNESSY. The December 2019 cyber forum included participants from United States Northern Command (USNORTHCOM), United States Cyber Command (USCYBERCOM), the National Guard Bureau (NGB), as well as The Adjutants General (TAGs). Representatives from the Department of Homeland Security (DHS) and the Department of Justice (DOJ) also participated, and we continue to seek ways to improve information sharing with other federal partners.

Two key takeaways from the forum were the need for better communication channels among all partners for improved situational awareness, as well as a clearly defined process for ensuring non-DOD partners understand how to levy DOD assistance. We used these takeaways during Super Tuesday voting, when USNORTHCOM, along with USCYBERCOM, NGB, DHS, DOJ, and the intelligence community conducted real-time election defense coordination against foreign threats.

40. Senator BLUMENTHAL. General O'Shaughnessy, what are the plans in the future to keep conversations like this going as we move toward the 2020 election and beyond?

General O'SHAUGHNESSY. United States Northern Command (USNORTHCOM) supports the Department of Homeland Security (DHS) as the lead federal agency for election security. In this role, we continue to work closely with DHS to defend not only the 2020 elections, but future elections as well. USNORTHCOM will continue to refine our processes and exercise scenarios with our federal partners to enhance communications and streamline support to DHS.

41. Senator BLUMENTHAL. General O'Shaughnessy, in your testimony you state, "Our adversaries—including state and non-state actors—continue to actively target military networks, civilian critical infrastructure, and our democratic processes through network-based intrusions." I am proud to say that the Connecticut National Guard Election Task Force will be conducting cyber defense operations along with several other states during the 2020 elections.

General O'SHAUGHNESSY. The National Guard plays an essential role in defending against malicious cyber activities targeting elections. I applaud the efforts of all National Guard units supporting cyber defense of the 2020 elections.

42. Senator BLUMENTHAL. General O'Shaughnessy, can you speak to your plan to integrate efforts such as those of the Connecticut National Guard—but also the role of CYBERCOM and the Cybersecurity and Infrastructure Security Agency—to mitigate threats to our election infrastructure?

General O'SHAUGHNESSY. The Department of Homeland Security (DHS) Cybersecurity and Infrastructure Security Agency (CISA) is the lead federal response agency for cyber election security and has been sharing information and providing assistance to all organizations, including the National Guard, that request support. USNORTHCOM, in partnership with United States Cyber Command, is assisting CISA by providing intelligence information. Additionally, the National Guard Bureau (NGB) has been sharing information and conducting tabletop exercises with National Guard forces, and some states have already begun to execute support at the state level.

THE THREAT OF INFORMATION OPERATIONS AND NEED FOR COGNITIVE SECURITY (COGSEC)

43. Senator BLUMENTHAL. General O'Shaughnessy, the Emerging Field of Cognitive Security (COGSEC) focuses on the evolving information environment and suggests that in the future, governments, social platforms, and non-state actors will be engaged in a continual arms race to influence—and protect from influence—large

groups of users online. This field was highlighted by RAND analyst Dr. Rand Waltzman who previously testified in front of the SASC Cybersecurity Subcommittee in 2017. I am concerned about these efforts to exploit the cognitive biases of large public groups to support the execution of military objectives. This threat was crystalized in 2014 in Eastern Ukraine, in which information operations campaigns targeted both civilian and military members of Ukraine based on their cognitive biases to achieve a military objective, the annexation of Crimea. How can we protect our Homeland from non-kinetic attacks like we saw in Ukraine?

General O'SHAUGHNESSY. Our adversaries have the ability to threaten our Homeland in multiple domains—to include the information domain. Whether an attack originates in cyberspace or in the physical domain, USNORTHCOM and NORAD cannot deter what we cannot defeat, and we cannot defeat that which we cannot detect. Protecting our Homeland in the information domain requires a collaborative whole-of-government effort, and our contributions include intelligence support to information operations, cyber, and counter-messaging efforts in support of our interagency partners.

44. Senator BLUMENTHAL. General O'Shaughnessy, what counter measure are we taking now, or can we take in the future, to increase our defense of the Homeland in this increasingly complex operating environment?

General O'SHAUGHNESSY. As we defend the Homeland against threats in all domains, USNORTHCOM is focused on countering adversary narratives by, with, and through our fellow combatant commands and partners. In an age of rapidly advancing technology, strategic competition, and innovation, we cannot rely on antiquated technology or outdated approaches. We are bringing new thinking, new approaches, and new technologies to bear against our adversaries in order to defend our Homeland. One such initiative is through the USNORTHCOM-created Homeland defense Military Information Support Operations (MISO) program, which enables all combatant commands to conduct information operations as part of an integrated effort to improve our Homeland defense.

45. Senator BLUMENTHAL. General O'Shaughnessy, great power competition includes being able to defend against adversaries like Russia, China, and Iran's ability to carry out non kinetic attacks on the Homeland. How do you see the problem of our adversaries conducting information operations within United States borders?

General O'SHAUGHNESSY. Our adversaries possess the capability to threaten our Homeland in the information domain. Defense against information operations requires a whole-of-government effort, and close collaboration with a wide range of partners. USNORTHCOM places a high priority on our support to the Department of Homeland Security, U.S. Cyber Command, and other government partners to defend the Homeland in the information domain.

46. Senator BLUMENTHAL. General O'Shaughnessy, over the past 10 years, we have seen many attempts to destabilize the United States from the inside out and subvert faith in democratic institutions. In coordination with CYBERCOM what are you doing to protect the Homeland from these often invisible, but very meaningful threats to the Homeland?

General O'SHAUGHNESSY. In synchronizing efforts with USCYBERCOM, we are bringing new thinking, new approaches, and new technologies to bear against our adversaries to defend our Homeland. As we defend the Homeland against complex threats in all domains, USNORTHCOM understands the status quo is not acceptable and we are actively building a capable defense that provides a credible deterrent. In an age of rapidly advancing technology, rising strategic competition, and extraordinary innovation, we are working closely with our partners in the Department of Defense, to include USCYBERCOM and the National Guard Bureau to defend our networks and our elections infrastructure to protect our critical democratic institutions.

QUESTIONS SUBMITTED BY SENATOR MAZIE HIRONO

MISSILE DEFENSE OF HAWAII

47. Senator HIRONO. General O'Shaughnessy, in your written testimony you highlighted North Korea's successful tests of ICBMs capable of ranging to most or all of North America. How confident are you in the ability of the Ground-based Midcourse Defense System to defend the United States against ICBMs fired from North Korea, and does that confidence include ICBMs targeted at Hawaii?

General O'SHAUGHNESSY. I am confident we can defend against an ICBM threat from North Korea today, including threats to Hawaii. However, adversary capabilities continue to advance. We are on the ragged edge for the Ballistic Missile Defense System and need to modernize and advance our missile defense capabilities to keep pace.

HOMELAND DEFENSE RADAR HAWAII

48. Senator HIRONO. General O'Shaughnessy and Admiral Richard, how important is the Homeland Defense Raar-Hawaii (HDR–H) in terms of providing discriminating radar tracking information for the Ground Based Interceptors? Would there be additional vulnerabilities or risks to Hawaii from evolving missile threats without the HDR–H?

General O'SHAUGHNESSY. I remain confident in our ability to defend Hawaii today with the current Ballistic Missile Defense System and sensor suite, which includes the Sea-Based X–Band Radar and AN/TPY–2 radars. In addition, the Homeland Defense Radar-Hawaii (HDR–H) could provide some improved capability for Ground-Based Interceptor (GBI) defense of Hawaii. Specifically, the HDR–H could provide further layered defense post-GBI engagement to track data to engage a threat not intercepted by GBIs.

Admiral RICHARD. I defer to Commander, USNORTHCOM and NORAD to address the importance of HDR–H radar tracking information to Ground Based Interceptors and associated risks to Hawaii in the absence of this capability.

HOMELAND SECURITY

49. Senator HIRONO. General O'Shaughnessy, Homeland defense is the number one priority and focus of NORTHCOM and NORAD. In an era of cyber threats, misinformation campaigns, hypersonic weapons and the growth of space as a warfighting domain, how has the concept of Homeland defense evolved in the first part of the 21st century?

General O'SHAUGHNESSY. Given the changes in the global security environment, the speed and complexity of war has accelerated such that future conflict will involve all domains and will be trans-regional in nature. Accordingly, Homeland defense is now an important consideration for all combatant commands, given that defense at home and power projection abroad are acknowledged as interdependent efforts. Homeland defense concepts and capabilities must continue to be at the forefront of planning and operations across the Joint Force in order to ensure our ability to project power and influence abroad.

50. Senator HIRONO. General O'Shaughnessy, what metrics do you use to measure the efficacy of programs foused on Homeland defense?

General O'SHAUGHNESSY. USNORTHCOM and NORAD are driven by a single unyielding priority: defending the Homeland. In order to defend against these 21st century threats, our Homeland defense enterprise must reflect the fact that the threats to the Homeland have expanded beyond the violent extremist threat that led to USNORTHCOM's establishment. Both USNORTHCOM and NORAD have refocused our efforts on deterring and defeating the complex nation-state threats and adversarial strategies that have eroded our military advantage; our defense priorities should continue to evolve to stay ahead of current and emerging threats identified in the National Defense Strategy. When acquiring capabilities to defend the Homeland, individual programs are measured and tested to ensure they meet established operational requirements.

51. Senator HIRONO. General O'Shaughnessy, what additional tools, if any, does the United States need to develop further to address these evolving threats to the Homeland?

General O'SHAUGHNESSY. In order to effectively defend the Homeland, USNORTHCOM and NORAD have developed a Homeland Defense Design (HDD) consisting of three main elements: a layered sensing grid for domain awareness, an adaptive architecture for joint all-domain command and control (JADC2), and new defeat mechanisms for advanced threats, including cruise missiles, ballistic missiles, hypersonic weapons, and small unmanned aerial systems. These three elements are vital to deterring and defeating advanced threats to the Homeland, and USNORTHCOM and NORAD are moving with a sense of profound urgency to bring these capabilities into the fight.

NORTH KOREA

52. Senator HIRONO. Admiral Richard, you have expressed STRATCOM's commitment to supporting DOD efforts to work with partners in the Indo-Pacific region to reduce military tensions and support the achievement of the fully verified denuclearization of North Korea. Given the variety of messages the United States has received over the past year from North Korea's leadership regarding the direction of their nuclear program, what do you think the next steps are to achieve full denuclearization of North Korea, and what role can STRATCOM play in achieving that goal?

Admiral RICHARD. USSTRATCOM supports the Department's efforts to work with regional partners to reduce military tension. I defer to the State Department for their diplomatic efforts in achieving the final, fully verified denuclearization of North Korea.

QUESTIONS SUBMITTED BY SENATOR ELIZABETH WARREN

NEW START AND ARMS CONTROL

53. Senator WARREN. Admiral Richard, can you tell explain how New START verification help you do your job at Strategic Command? For example, how do you use the 18 inspection per year and constant flow of information from Russia on the whereabouts of their nuclear weapons to help protect the United States?

Admiral RICHARD. The verification regime enhances our ability to accurately assess Russian capabilities which significantly contributes to our understanding of their force structure and pace of modernization. For example, Russia's new Avangard hypersonic glide vehicle and Sarmat heavy ICBM will both be accountable under New START and we will be provided access to those systems via the verification regime.

54. Senator WARREN. Admiral Richard, the Trump administration is proposing to negotiate a new arms control ageement that includes additional types of nuclear weapons not covered by New START and also includes China. My understanding is that such an agreement would be unprecedented and complicated. New START expires in less than a year. Do you think it's possible to negotiate and bring into force a new trilateral arms control agreement before New START expires on February 5, 2021? Is there a specific point at which you will recommend that the President extend New START regardless of the status of the trilateral diplomatic effort? Is this country safer in a world where we have no controls over or insights into Russian strategic forces?

Admiral RICHARD. I defer to the State Department regarding the specifics for negotiating agreements. China has reaped significant benefits by not being bound to the Intermediate-Range Nuclear Forces Treaty, and has consequently built a substantial arsenal of medium- and intermediate-range ballistic missiles.

I support any arms control agreement that enhances the security of this nation. Russia has been largely compliant with New START (NST) as it sets a limit on the number of deployed strategic weapons they have. However, as a bilateral treaty, NST fails to account for thousands of non-strategic weapons and new systems in development outside of the treaty definitions. In a perfect world, having all of these attributes would make my job easier. When asked, my best military advice to the President will be NST has served us well and we should preserve those treaty attributes that are beneficial, seek to address those issues the NST does not address, and remain cognizant of the limits of military advice to diplomatic initiatives.

Whether the world is safer without the insights provided by NST depends on the evolution of Russian strategy and their forces absent such an agreement, and how the United States strategy might need to adapt to address any changes. Our current strategy and planned modernization as stated in the Nuclear Posture Review includes posturing our nuclear force structure and stockpile to hedge against these prospective and unanticipated risks.

55. Senator WARREN. Admiral Richard, how does STRATCOM approach its mission of deterring China diferently from the mission to deter Russia? What adversary presents the greater nuclear risk to the United States? Are you confident in your strategic deterrence capabilities vis-á-vis China? How does the fact that New START exists help you address the concerns you have with the risk presented by Russia?

Admiral RICHARD. The deterrence strategies for Russia and China are broadly similar as both countries pose an existential threat to the United States. For China,

our strategy is designed to prevent Beijing from mistakenly concluding that it could secure an advantage through the limited use of its nuclear capabilities or that any use of nuclear weapons, however limited, is acceptable.

For Russia, the strategy is to ensure Russia understands that nuclear first-use, however limited, will fail to achieve its objectives, fundamentally alter the nature of a conflict, and trigger incalculable and intolerable costs for Moscow. Any use of nuclear weapons, however limited, is unacceptable.

While Russia has greater nuclear capability today, China's lack of transparency and refusal to participate in arms control agreements produces considerable uncertainty surrounding its intentions. China's ongoing nuclear modernization, which includes it likely doubling the size of its nuclear warhead stockpile by the end of the decade, is a glaring example.

Our current strategy and planned nuclear force modernization, in support of the Nuclear Posture Review, includes posturing our forces and stockpile to hedge against prospective and unanticipated risks from Russia and China.

New START helps address concerns regarding Russia. It provides a ceiling on specific strategic offensive arms and a verification regime (i.e., on-site inspections, database exchanges, notifications) that permits visibility into Russian strategic offensive capabilities.

56. Senator WARREN. Admiral Richard, what military developments by China are most worrisome to you? If yo were asked for your military advice on which Chinese nuclear weapons systems you would most likely to see reduced or eliminated, which would you suggest?

Admiral RICHARD. While the full answer to this question includes higher classification considerations, there are a number of unclassified Chinese military developments that concern me:

- China's investment in highly accurate medium- and intermediate-range ballistic missiles suggests that Beijing believes it can fight and win a regional conventional war within the nuclear shadow.
- China is developing two new ICBMs to greatly increase the nuclear threat to CONUS. Once operational, the DF–41 road-mobile intercontinental ballistic missile will be able to strike most of the continental United States with multiple independently-targetable warheads. China is also developing the JL–3 next-generation submarine-launched ballistic missile.
- Finally, China is investing in a defense industrial base capable of researching and developing next-generation strategic capabilities, such as low observable airframes, hypersonic weapons, quantum computing, artificial intelligence, counter-space, cyber, and nanotechnology.
- See classified response for additional considerations.

My best military advice is informed by China's actions, not its words. Their ongoing nuclear modernization investments, their aggressive expansion activities in the South and East China Seas, and the assessment that China will likely double the size of its nuclear stockpile by the end of the decade, indicates China's leaders either no longer believe a small nuclear arsenal is sufficient to maintain a second-strike capability, or they are pursuing a more aggressive nuclear strategy.

57. Senator WARREN. Admiral Richard, Russian officials confirmed that the Avangard hypersonic glide vehicle an Sarmat heavy ICBM will be limited by New START. Can you confirm this to be the case? Why is it important that New START limits these systems—what is it about these specific systems that you find worrisome? If New START expires, will you be concerned with the loss of transparency into these brand new nuclear weapons?

Admiral RICHARD. Yes. Russian leadership made several public statements affirming Avangard did in fact meet the treaty criteria for reporting. A United States team inspected the system in late November of last year. In addition, Russian Foreign Minister Sergey Lavrov himself stated that the Avangard and Sarmat systems will be accountable under New START (NST).

It is important for these systems to fall under the NST limits because they are new strategic offensive capabilities. The NST imposes ceilings on these systems and provides transparency, to the benefit of both parties.

The loss of the NST verification regime would reduce our ability to accurately assess Russian strategic capabilities, including new systems like Avangard, Sarmat, and others. The comprehensive deterrence strategy, as defined in the Nuclear Posture Review, includes the force structure and stockpile to hedge against prospective and unanticipated risks.

A fully modernized nuclear Triad, including requisite NC3 capabilities and low-yield nuclear weapons, provides the diversity and flexibility to tailor U.S. strategies for effective deterrence as the geopolitical landscape evolves.

58. Senator WARREN. Admiral Richard, are the vast majority of Russia's strategic nuclear delivery systems coered by New START today? 90 percent of the systems? More than 90 percent? Do you think this will be the case in 2021 as well?

Admiral RICHARD. One hundred percent of Russia's strategic nuclear delivery systems are accountable under New START (NST) today. NST does not impose any limits on the thousands of Russian non-strategic nuclear weapons or developmental systems designed to evade treaty restrictions.

It would be improper for me to speculate regarding the outcome of ongoing discussions concerning NST extension.

SLCM–N

59. Senator WARREN. Admiral Richard, the Pentagon is currently undertaking an analysis of alternatives for a ne nuclear-armed sea-launched cruise missile as proposed in the 2018 Nuclear Posture Review. Did STRATCOM support President Obama's decision to retire the missile and warhead in 2010? If so, why?

Admiral RICHARD. Under General Cartwright, USSTRATCOM led a study which ultimately recommended retirement of the TLAM–N [Tomahawk Land Attack Missile-Nuclear]. This recommendation was in-line with then President Obama's policy that the Nation needed to reduce nuclear weapons to the minimum required for deterrence and followed from the 1991 Presidential Initiatives to remove nuclear weapons from all Navy vessels except Trident SSBNs.

The 1991 decision drove reductions in TLAM–N funding due to the need to support higher priority programs, causing TLAM–N readiness to degrade incrementally and ultimately drove significant operational risk across the system. That operational risk was the reason TLAM–N was retired and a suitable replacement was not pursued.

When TLAM–N was retired, the threat environment was perceived as more benign, and we determined the capability was not needed. Since then, adversaries have increased their reliance on nuclear weapons by expanding their arsenals, modifying policies for their use and adding new capabilities designed to complicate our deterrence strategy. Russia has undergone a nearly complete modernization of its strategic systems, while China has rapidly expanded their forces and will soon have a nuclear triad of their own.

60. Senator WARREN. Admiral Richard, if a decision is made to renuclearize the Navy's attack submarine fleet with a SLCM, can you tell me what doing so would entail? In addition to the cost to acquire the missile and warhead, would there be additional certification, security, storage, and operational costs to maintain the capability?

Admiral RICHARD. The Navy is conducting a SLCM Analysis of Alternatives (AOA) study; it is premature to presume answers to these questions at this time.

If the AOA concludes the Navy attack submarine is the appropriate platform, the study would provide justification, trade-offs, and initial estimates of costs associated with acquisition, sustainment, certification, security, storage and operational cycle.

I defer to the Navy to answer specifics on what is required and the associated costs of acquiring a SLCM–N capability.

61. Senator WARREN. Admiral Richard, would arming attack submarines with nuclear SLCMs mean that each submarine could carry fewer conventional Tomahawks?

Admiral RICHARD. My response is stated in the answer to Question 60 above. I defer to the Navy for specific SLCM–N AOA questions.

GBSD

62. Senator WARREN. Admiral Richard, according to the 2018 NPR, the life of the Minuteman III "cannot be extended further." However, in your testimony you did not say that and instead said that extending the life Minuteman III (through 2070) would be more costly than GBSD and that the Minuteman III cannot address future challenges and threats to the ICBM force. Why did the NPR claim that the life of the Minuteman III "cannot be extended further?"

Admiral RICHARD. The 2014 GBSD AOA determined that the cost of pursuing the GBSD program is comparable to a Minuteman III life extension program (LEP); and, more importantly, will deliver the improved reliability, security, and effective-

ness required to meet current and future challenges—making replacement of the Minuteman III system a more cost-effective choice. The 2018 NPR subsequently reaffirmed the importance of maintaining an effective ICBM capability in meeting future deterrence requirements, and endorsed continuation of the GBSD program.

We are six years removed from the correct decision to pursue GBSD over another Minuteman LEP, and GBSD must achieve Initial Operational Capability before the Minuteman III begins to age-out. USSTRATCOM continues to support GBSD as the most expeditious, economical and cost-effective approach to maintaining the land-based portion of our strategic deterrent force.

63. Senator WARREN. Admiral Richard, you stated in your testimony that the Minuteman III missiles "will have increasing difficulty penetrating future adversary defenses." But don't the missiles contain a repertoire of countermeasures to overcome such defenses? Unlike the United States, have U.S. adversaries figured out a way to defend against a large-scale ballistic missile attack?

Admiral RICHARD. Minuteman III has carried a single countermeasure system for decades. The 2014 GBSD AOA determined future adversary defenses will improve, and GBSD must deploy improved countermeasures to defeat emerging challenges.

Today, no country can defend against a large-scale ballistic missile attack.

Despite frequently criticizing the United States and allies for developing and fielding missile defense systems, potential adversaries have long made substantial investments in their own missile defense systems. Russia and China are also developing ASAT capabilities that could threaten United States space-based assets.

For example, Russia maintains and modernizes its longstanding strategic missile defense system deployed around Moscow, including 68 nuclear-armed interceptors, and has fielded multiple types of shorter-range, mobile missile defense systems throughout Russia. In addition, Russia is developing a diverse suite of ground-launched and directed-energy ASAT capabilities, and continues to launch "experimental" satellites that conduct sophisticated on-orbit activities to advance Russian counterspace capabilities.

QUESTIONS SUBMITTED BY SENATOR TAMMY DUCKWORTH

GBSD CONTRACT

64. Senator DUCKWORTH. Admiral Richard, can you explain why the Air Force decided to move forward with a sole source award for GBSD, rather than canceling the solicitation to rework the requirements and timeline to attract healthy competition?

Admiral RICHARD. I defer to the Air Force to answer specific questions regarding the ongoing GBSD source selection acquisition process.

FTC INVESTIGATION

65. Senator DUCKWORTH. Admiral Richard, the Federal Trade Commission issued a civil investigative demand to the company that won the GBSD contract, requesting information on its bid. Before moving forward with sole source negotiations, will the Air Force wait until the FTC investigation of the GBSD bid is complete?

Admiral RICHARD. I defer to the Air Force to answer specific questions regarding any litigation related to the ongoing GBSD source selection acquisition process.

NON-NUCLEAR STRATEGIC THREATS

66. Senator DUCKWORTH. Admiral Richard, during your confirmation hearing you stated, "The 2018 Nuclear Posture Review was very wise in acknowledging the possibility that strategic attacks could be other than nuclear and start to set a policy for us to address those." Since this is most certainly a strategic capability our adversaries are pursuing, would you recommend any policy shifts in order to better address deterring non-nuclear strategic attacks?

Admiral RICHARD. No. The NPR stipulates that a critical role of U.S. nuclear forces is the deterrence of nuclear and non-nuclear attack. Further the NPR recognizes U.S. nuclear capabilities make essential contributions to the deterrence of non-nuclear aggression. Accordingly, the NPR states the U.S. will maintain the range of flexible nuclear capabilities needed to ensure nuclear or non-nuclear aggression against the U.S., allies, and partners will fail to achieve its objectives.

Despite frequently criticizing the United States and allies for developing and fielding missile defense systems, potential adversaries have long made substantial investments in their own missile defense systems. Russia and China are also developing ASAT capabilities that could threaten United States space-based assets.

For example, Russia maintains and modernizes its longstanding strategic missile defense system deployed around Moscow, including 68 nuclear-armed interceptors, and has fielded multiple types of shorter-range, mobile missile defense systems throughout Russia. In addition, Russia is developing a diverse suite of ground-launched and directed-energy ASAT capabilities, and continues to launch "experimental" satellites that conduct sophisticated on-orbit activities to advance Russian counterspace capabilities.

67. Senator DUCKWORTH. Admiral Richard, should the Department be investing in more research and development to counter non-nuclear strategic threats?

Admiral RICHARD. The Department's current and projected R&D investments are appropriate. R&D programs for artificial intelligence, cyber, autonomy, quantum computing, hypersonics, directed energy and other innovative technologies will result in leading-edge capabilities to meet warfighter needs, defense priorities, and the means to counter evolving non-nuclear strategic threats.

NATIONAL DEFENSE STRATEGY

68. Senator DUCKWORTH. General O'Shaughnessy, please tell me what actions NORTHCOM needs to take in the coming year to better align itself with the National Defense Strategy and great power competition?

General O'SHAUGHNESSY. USNORTHCOM and NORAD are aggressively implementing the 2018 National Defense Strategy and executing the top priority of the NDS: defend the Homeland. With that focus on the NDS, we are transforming the USNORTHCOM and NORAD headquarters and our components while placing a strong emphasis on integrating Homeland defense into global defense planning, exercises, and operations. We have also developed the Strategic Homeland Integrated Ecosystem for Layered Defense (SHIELD) to provide a persistent, purpose-built defense architecture. This forward-looking concept incorporates improved domain awareness, joint all-domain command and control, and advanced defeat mechanisms as critical pillars for defense of our Homeland.

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2021 AND THE FUTURE YEARS DEFENSE PROGRAM

TUESDAY, FEBRUARY 25, 2020

UNITED STATES SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

UNITED STATES EUROPEAN COMMAND AND UNITED STATES TRANSPORTATION COMMAND

The Committee met, pursuant to notice, at 9:31 a.m. in room SH–216, Hart Senate Office Building, Senator James M. Inhofe (Chairman of the Committee) presiding.

Committee Members present: Senators Inhofe, Wicker, Fischer, Cotton, Rounds, Ernst, Tillis, Sullivan, Perdue, McSally, Scott, Blackburn, Hawley, Reed, Shaheen, Gillibrand, Blumenthal, Hirono, Kaine, King, Heinrich, Peters, Manchin, Duckworth, and Jones.

OPENING STATEMENT OF SENATOR JAMES M. INHOFE

Chairman INHOFE. Our hearing will come to order.

We meet today to continue receiving the posture statements. There will be quite a few more. It is the time of year, and we have General Tod Wolters—and I appreciate very much the time we spent together in Munich last week—and General Stephen Lyons. I appreciate the two and the years of service that you have donated and given to your country.

As stated many times before, the Armed Services Committee's top priority is to ensure the effective implementation of the National Defense Strategy (NDS). We pretty much—it surprised me, Senator Wicker—how we have really stuck with that from the very beginning. It means that we must ensure that in this era of great power competition with Russia and China that our military services are resourcing our combatant commands to address the challenge of strategic competition.

This is especially true of our two combatant commands (COCOMS) that are here today. EUCOM [European Command] is focused on deterring Vladimir Putin who has repeatedly shown his willingness to use force to achieve his political objectives. Then there is TRANSCOM [Transportation Command] whose focus on full spectrum mobility operations includes sealift and airlift, both of which face capability shortfalls.

I just returned from the Munich Security Conference with several others here at this table. It was a great reminder of the importance of allies and partners as we deal with the challenges from China and Russia. There are great opportunities to work with our European friends especially in Africa, and I hope that we will continue to do that.

America's commitment to NATO [North Atlantic Treaty Organization] remains bipartisan and unwavering. We are matching our words with action especially through our posture investments in the European Deterrence Initiative (EDI) and the upcoming exercises called Defender 20, which will be the largest movement of United States troops to Europe since the end of the Cold War. We are talking about, in addition to the 10,000 already there, an additional 20,000, and so that is a large one. It is a record-setter.

General Wolters, I look forward to hearing about your priorities going forward especially in the maritime domain where Russia is increasing activity, advancing submarines and in air and missile defense as China continues to threaten United States and allied forces with its missile arsenal.

General Lyons, you recently stated that the aerial refueling fleet is the most stressed in the U.S. Transportation Command's arsenal. So we look forward to getting your thoughts on how we can address the shortfall, much of which is due to the problems that we have had with the KC–46. I am particularly sensitive to that because I was honored to come back from all the way to Washington State to come back to Altus Air Force Base in the KC–46. At that time—that was less than a year ago—I did not think there was any problem with it. Obviously, there is.

Before we turn to Senator Reed, we would remind the members that we will have a classified, closed, informal briefing at 2:30, and that is going to conflict with some of the votes.

Senator Reed?

STATEMENT OF SENATOR JACK REED

Senator REED. Well, thank you very much, Mr. Chairman. I want to join you in welcoming our witnesses this morning. General Wolters is testifying for the first time before the Committee in his current position as Commander of United States European Command and NATO Supreme Allied Commander Europe, or the SACEUR.

General Lyons, I welcome your return to testify before the Committee on the posture of the U.S. Transportation Command.

Let me thank both of you for the many decades of military service, and please extend our appreciation to the dedicated men and women serving under your command.

The transatlantic relationship remains absolutely critical to U.S. national security. Our close bond with our European allies and partners is one of our greatest strategic advantages. In the fiscal year 2020 National Defense Authorization Act (NDAA), Congress reaffirmed the unbreakable U.S. commitment to NATO.

I am concerned, however, that significant cuts in the European Deterrence Initiative, or EDI, as proposed in the President's fiscal year 2021 budget request may send the wrong signal to our allies

and our adversaries regarding our support for the transatlantic relationship.

The EUCOM Commander faces a wide range of complex security challenges, including the reemergence of a revanchist Russia seeking to reassert a claim to great power status. Russia is actively undermining the rules-based international order that it views as contrary to its strategic interests. Russia has deployed its military aggressively to attempt to coerce its neighbors and undermine their sovereignty. Consistent with the 2018 National Defense Strategy, EUCOM is developing the operational concepts, plans, and programs necessary for the strategic competition with Russia and to ensure our combat credible military deterrent against Russia's efforts to threaten the sovereignty of our allies and partners. General Wolters, the Committee will be very interested in whether you have the force posture in Europe and resources to meet this challenge.

Additionally, Russia is engaged in a campaign of hybrid warfare, below the level of military conflict, to advance its strategic interests. Recent news reports have highlighted that Russia is, once again, conducting information warfare operations to influence the upcoming United States presidential elections to advance preferred candidates and sow division and undermine public faith in our democratic process. I would be interested in how EUCOM is working with CYBERCOM [Cyber Command] and other agencies to counter the Russian hybrid threat and what progress, if any, have we made on ensuring a coordinated, whole-of-government strategy to defend against Russian malign influence.

A major test of both EUCOM and TRANSCOM will come this spring, as the Chairman has indicated, with the Defender-Europe 20 exercise. This exercise is about the transportation of a division-sized combat force, the largest deployment of troops from the United States to Europe for an exercise in the past 25 years. There are some of us that still remember Reforger. In total, some 37,000 U.S., NATO, and partner forces will participate in Defender. This exercise will highlight the combat-credible military deterrent provided by United States and allied forces against aggression in Europe.

Now, turning to TRANSCOM, the men and women of TRANSCOM perform duties that sustain the entire Department of Defense (DOD) effort in protecting our Nation's security. With the competitive edge and its ability to deploy and sustain America's armed forces, TRANSCOM provides DOD with unique capabilities that we have come to expect and perhaps too frequently take for granted. TRANSCOM forces are busy supporting all of the combatant commanders every day, and without them, the United States would be at a significant disadvantage almost everywhere in the world.

The Ready Reserve Force, or RRF, is a group of cargo ships held in readiness by the Maritime Administration (MARAD). But it is aging and will need to be modernized over the next decade. Three years ago, the Committee authorized the Defense Department to begin a program to recapitalize the Ready Reserve Force. This program will authorize DOD to purchase up to two foreign-built ves-

sels while the Navy designed a family of auxiliary vessels for a number of uses, including recapitalizing the Ready Reserve Force.

Then, 2 years ago, Congress authorized the department to buy five more foreign-built vessels as soon as the Department submitted a funded plan to build new ships for the RRF in U.S. shipyards, a plan we have yet to receive. General Lyons, I am interested in the status of the RRF recapitalization in fiscal year 2021.

The Defense Department also needs to ensure that the Civil Reserve Air Fleet, or CRAF, program, which provides as much as 40 percent of wartime airlift needs, remains viable and will be able to provide needed surge capacity in the future. General Lyons, I am interested in your views on the state of this fleet and if anything needs to be done to ensure their readiness.

Our global transportation capability owned or managed by TRANSCOM has been one of our asymmetric advantages of many years now. However, we cannot assume that potential adversaries will allow us free rein in this area in the future. Last year, we received the report of the analysis of wartime transportation needs in the Mobility Requirements Study. It was clear to the Committee that the Department needed to continue the analytical effort to identify requirements because the study presented last year did not reflect implementation of the National Defense Strategy. General Lyons, perhaps you could give us an update on where TRANSCOM stands in updating this analysis.

Finally, TRANSCOM also faces a unique set of cyber threats because of the command's extensive work with private sector entities in the transportation and shipping industries. General Lyons, I would like to get an update from you on where TRANSCOM stands in its effort to improve its cybersecurity posture.

Again, let me thank the witnesses for appearing before the Committee today. I look forward to your testimony.

Chairman INHOFE. Thank you, Senator Reed.

We will now hear opening statements. We will start with you, General Wolters, and then General Lyons. Your statements should be around 5 minutes. Your entire statement will be made a part of the record. General Wolters?

STATEMENT OF GENERAL TOD D. WOLTERS, USAF, COMMANDER, UNITED STATES EUROPEAN COMMAND/ NORTH ATLANTIC TREATY ORGANIZATION SUPREME ALLIED COMMANDER EUROPE

General WOLTERS. Chairman Inhofe, Ranking Member Reed, distinguished Members of the Committee, it is an honor to appear before you, and on behalf of the men, women, and families that represent USEUCOM, we thank each and every one of you for your steadfast support. As all of you well know, it is an absolute privilege to serve alongside the patriots that represent the United States of America.

In Europe, political uncertainty, energy competition, and diffusion of disruptive technology are stressing the established Western order. Threats and challenges, most notably Russia, Iran, and China, seek to take advantage of these conditions through aggressive action using all instruments of national power and are backed by increasingly capable military forces.

Fully aligned with the National Defense Strategy implementation efforts, we confront these challenges by adapting our approach to most effectively employ our means. Together with the likeminded allies and partners, our team of patriots defend freedom in all domains across the area of responsibility and around the clock. Thanks to their efforts and the authorities and resources you provide, EUCOM continues to maintain positive momentum with respect to readiness and is postured to compete, deter, and effectively respond with the full weight of the transatlantic alliance.

In 2019, NATO took significant military strides with improvements in command and control, indications and warnings, mission command, and by approving a new NATO military strategy titled "Comprehensive Defense and Shared Response." NATO continues to adapt its force structure with the establishment of two additional NATO headquarters. Joint Forces Command Norfolk, which is focused on maintaining transatlantic lines of communications, and the German-led Joint Support Enabling Command focused on rear-area logistics coordination. These headquarters increase our ability to command and control, enable deployment, and sustain NATO forces in crisis or conflict.

The European Union (EU), NATO, and EUCOM have made progress improving infrastructure and transit procedures to facilitate rapid movement of forces across the Euro-Atlantic. We will leverage many of these advancements to facilitate deployment of a division-sized force, as mentioned by the Chairman, during the United States-led exercise Defender-Europe 20, an exercise that showcases United States and allied commitment to collective security of the Euro-Atlantic.

The United States' position in Europe is an invaluable cornerstone of national security. Today, United States servicemembers in Europe continue to generate peace alongside our allies and partners. We are grateful for sustained congressional interest and support through authorities and funding. Together with the soldiers, sailors, airmen, marines, coast guardsmen, and civilians of USEUCOM, your support demonstrates our Nation's continued commitment to defend the homeland forward and preserve peace for the 1 billion citizens in the Euro-Atlantic.

Thank you.

[The prepared statement of General Wolters follows:]

PREPARED STATEMENT BY GENERAL TOD D. WOLTERS

Chairman Inhofe, Ranking Member Reed, and distinguished Members of the Senate Armed Services Committee, on behalf of the dedicated men, women, and their families preserving peace in the Euro-Atlantic, it is an honor to testify before you today. It is a privilege to serve alongside these dedicated patriots in a mission that is essential to national security. Their selfless service and tireless commitment is an inspiration. Together, with likeminded Allies and partners, our soldiers, sailors, airmen, marines, coast guardsmen, and civilians work to defend peace and prosperity around the clock.

The 2017 National Security Strategy (NSS) and 2018 National Defense Strategy (NDS) articulate how a free and prosperous Europe, defended by a capable and credible Euro-Atlantic Alliance, remains foundational to our security in an increasingly competitive strategic environment. USEUCOM's operations, activities, and investments are aligned with our strategies to meet the challenges of great power competition from both Russia and China. Enabled by deep and meaningful Ally and partner relationships, USEUCOM is ready to fight and win against capable adversaries should deterrence fail. We are proud of the collaborative work across the

Joint Force to implement these strategies and are grateful for continued Congressional interest and support.

In Europe, political uncertainty, migration, energy competition, and diffusion of disruptive technology are stressing the established democratic order. Competitors, most notably Russia, China, and Iran, seek to take advantage of these conditions through aggressive action using all instruments of national power, and are backed by increasingly capable military forces. An environment exists where adversary disinformation and destructive cyber campaigns can be amplified to foment instability. This nexus is testing national governments and multi-national institutions like the European Union (EU) and North Atlantic Treaty Organization (NATO).

RISKS AND CHALLENGES IN THE USEUCOM AREA OF RESPONSIBILITY (AOR)

The USEUCOM Area of Responsibility (AOR) covers a large and diverse geographic area. It encompasses not only nations such as Russia, Turkey, Ukraine, and Israel, but a diverse set of perspectives from the Arctic, Iberian Peninsula, Mediterranean Sea, and Eastern Europe.

Russia

Russia's sizable nuclear arsenal ensures they will remain a long-term, existential threat to the United States. Russia's vast non-strategic nuclear weapons stockpile and apparent misperception they could gain advantage in crisis or conflict through its use is concerning. Russia continues to engage in disruptive behavior despite widespread international disapproval and continued economic sanctions, and continues to challenge the rules-based international order and violate its obligations under international agreements. The Kremlin employs coercion and aggressive actions amid growing signs of domestic unrest. These actions suggest Russian leadership may feel compelled to take greater risks to maintain power, counter Western influence, and seize opportunities to demonstrate a perception of great power status.

Over the past twelve years, Russia has invaded two neighboring states, violated the Intermediate-Range Nuclear Forces Treaty, leading to the treaty's termination, developed new strategic platforms resulting in the Skyfallto deliverfor nuclear cruise missile accident that killed 7 Russian scientists last year, weapons, and abrogated its responsibilities under the Treaty on Conventional Armed Forces in Europe, all at the expense of strategic stability. Russia employs a below-the-threshold of armed conflict strategy via proxies and intermediary forces in an attempt to weaken, divide, and intimidate our Allies and partners using a range of covert, difficult-to-attribute, and malign actions. These actions include information and cyber operations, election meddling, political subversion, economic intimidation, military sales, exercises, and the calculated use of force. Russian state-sponsored cyber actors have attacked NATO member government and commercial data networks. Russian proxies continue their attempt to undermine democratic institutions through concerted election meddling against the United States, Allies, and partners.

Beyond Europe, Russia is working to build influence in the Arctic, Latin America, Africa, and the Middle East. They are pursuing a partnership of convenience with China to close off the current free and open international order. By probing United States, Allied, and partner response thresholds, Russian leadership plays a dangerous game fraught with the risk of miscalculation and unintended escalation.

The Kremlin continues to maintain robust levels of defense spending, modernizing its forces across the board, with the intent of building a more flexible and rapidly deployable force to provide an enhanced capability to seize and maintain the initiative in both competition and conflict. Russia continues to rotate its forces through active conflicts in Syria and Ukraine to improve, test, and validate combat capabilities. Russia counts on its malign influence capabilities, conventional military, and nuclear forces to underwrite this aggressive approach. Modern Russian Integrated Air and Missile Defense (IAMD), cyber and electronic warfare systems, counterspace, and long-range precision fires capabilities are postured and employed to challenge United States and Allied warfighting systems, doctrine, and authorities.

Ukraine

Following the purported annexation of Crimea in 2014, Russia and its proxies continue their campaign to destabilize Ukraine's defense, economic, and political sectors with the intent of cementing Ukraine into the Kremlin's sphere of influence. Of particular concern is the ongoing conflict in the Donbas region, instigated and stoked by Russia. Even with the implementation of the Minsk agreements, ceasefire violations occur often. Russia also continues to undermine the government of Ukraine through cyber-attacks, support of illegitimate elections in eastern Ukraine, and aggressive actions in the Black Sea and Sea of Azov, including an attack on Ukrainian naval vessels. Contrary to Russian efforts, these coercive actions have energized

Ukrainian civil society and reinforced aspirations to membership in Euro-Atlantic institutions like the EU and NATO. The recent election of President Zelenskyy further solidified this pro-Western course. Ukraine has enhanced its commitment to fighting corruption and enacting defense reform, including by meeting the requirements of our Ukraine Security Assistance Initiative (USAI).

Poland and Baltics

Poland and the Baltics remain a strategic focal point for both NATO and Russia. For NATO, this is the region at the greatest risk of Russian aggression and miscalculated escalation due to historical grievances and geographic position. For the Kremlin, Polish and Baltic geopolitical alignment with the West are reminders of a withered sphere of control, of the rush toward NATO's open door, isolation of its Kaliningrad exclave, and lost access to the Baltic Sea from the Russian mainland. The Kremlin sees the region's substantial ethnic Russian population as a potential justification for intervention. It actively targets this population with extensive propaganda and malign influence operations. While NATO forces in the region currently help deter any overt Russian attack, Russian military forces in the Western Military District and Kaliningrad hold a geographic advantage and outnumber NATO forces postured in the region. Russia is actively employing malign information and cyber operations in an attempt to weaken regional stability and Alliance resolve. Allies in the region are deepening their knowledge and expertise in the cyber and information domains to the benefit of the United States and the Alliance. Poland's defense budget increases, burden-sharing basing offers with the United States, and on-going modernization that include Patriot and F–35 acquisitions, provide significant capability enhancements in the region and demonstrate resolve to meet and exceed the 2014 Wales Summit commitments.

South Caucasus

The Kremlin exerts influence over countries in the South Caucasus through manipulation of regional tensions and enduring military conflicts with all instruments of national power. The Kremlin believes chronic instability in this area is central to regional hegemony. Russia maintains leverage over Georgia through its occupation of Abkhazia and South Ossetia, including its attempts to alter the administrative boundary lines of occupied territories, interfere with the transit of people and goods within Georgia's sovereign territory, and complicate Georgia's NATO membership aspirations.

Russia also maintains its political influence over Armenia and Azerbaijan by playing both sides of the enduring conflict in Nagorno-Karabakh, while questionably serving as a neutral mediator in the Minsk Process peace negotiations. As an example of supplying both sides of the conflict, Russia provides military grant assistance to Armenia, a Collective Security Treaty Organization member, while simultaneously selling advanced military systems and hardware to Azerbaijan. Russia also influences support of operations farther abroad, such as convincing Armenia to deploy forces to Syria as part of the Russian contingent support for Assad's regime.

Balkans

The Balkans remain a strategically important region where ethnic tensions within nations and between neighbors continue to foster regional instability and are primary targets of persistent Russian malign influence. Aside from historical and cultural ties with the Balkan region, Russia views the sustainment of social and political tensions in the region as a central tenet of its goal to prevent individual Balkan nations from progressing on a path toward Euro-Atlantic alignment and integration. Nonetheless, Montenegro, and soon North Macedonia's accession into NATO represent tremendous success stories in spite of Russia's significant attempts to block and dissuade integration.

Despite Kosovo declaring independence in 2008, Russia, China, and several other nations have yet to recognize its status as a sovereign nation. Kosovo, and neighboring Serbia, have not yet normalized relations, but despite tensions, we continue to encourage both parties to maintain dialogue to find a peaceful solution. The principal stabilizing force in Kosovo remains NATO's Kosovo Force (KFOR), which includes a small, but significant United States contribution. KFOR's presence will remain essential to stability while Serbia and Kosovo pursue a stable relationship through the planned 10-year transition of the Kosovo Security Forces.

Serbia has attempted to find a balance between Russia and the West but finds its EU ambitions impeded by internal corruption, structural and economic challenges, EU–Russia sanctions, and the requirement to normalize relations with Kosovo. China has emerged as an alternative patron, engaging in both economic and defense support matters.

Bosnia and Herzegovina remains mired in political and ethnic instability. Fueled by Russian influence, obstructionistsseek greater autonomy for Republika Srpska to weaken state-level authorities and frustrate progress towards further alignment with NATO and the EU. Nationalist politics and entrenched ethnic divisions between Bosniaks, Bosnian-Croats, and Bosnian-Serbs challenge Bosnia and Herzegovina's ability to chart a path towards lasting stability.

Turkey

Acknowledging tensions and political disputes, Turkey remains a strategic United States Ally, critical to NATO and United States interests in Europe, EURASIA, and the Middle East. Home to the second largest military in NATO, Turkey borders a volatile region and is geostrategically located to assist in countering Russia. Turkey is also the only NATO member to share a border with Iran. Ankara continues to view the Kurdish Workers' Party (PKK) and its affiliates as their greatest security threat. From Turkey's perspective, continued United States support for the Syrian Democratic Forces remains the principal irritant to our bilateral security relationship. Turkey's intervention into Northeast Syria to address these security concerns degraded United States counter-terrorism efforts and further harmed our bilateral relationship.

Turkey's purchase of the Russian produced S–400 air defense system is incompatible with Turkish procurement of the F–35, the S–400 cannot be integratedwith NATO's Integrated Air and Missile Defense command and control network.

Turkey's role in countering Russia, however, is pivotal. The relationship between Moscow and Ankara remains transactional. Both nations view the Black Sea region as their natural area of influence and they continue to clash in Libya and are in direct combat in Idlib, Syria. Both United States and Turkey's long-term strategic interests are best served by continuing to work together to improve counter-Russia cooperation both bilaterally and through NATO.

Israel

Israel continues to face a complex set of evolving security challenges spanning the spectrum of conflict. Regional instability is fueled by Iran's efforts to threaten Israel and Russia's expanded involvement in Syria and the eastern Mediterranean.

Israel's adversaries, most notably Iran, Hamas, and Lebanese-Hezbollah, have taken advantage of this turbulence. Iran has positioned forces to threaten and attack Israel, attempted to expand its influence, and increased lethal support to regional partners.

Iran and its proxies have also made significant gains in asymmetric capabilities, including advanced ballistic missiles, cruise missiles, and unmanned aerial systems. Iran remains committed to modernizing its military and continues to improve the range, lethality, and accuracy of its ballistic missile systems and has the region's largest ballistic missile arsenal with the capability of striking targets 2,000 kilometers beyond its borders.

Mediterranean and Southern Flank

While migrant and refugee flows from the Middle East and Africa have decreased, steady movement of people across Turkey and through the Mediterranean continue to stress European nations and the EU. Migration remains a major security and humanitarian concern for Allies and partners across Southern Europe and consumes scarce defense and security resources.

Violent Extremist Organizations (VEO)

VEOs remain a transregional threat with decentralized command and control, finance, and facilitation networks spanning from conflict zones into Europe. These extremists continue to take advantage of instability in North Africa, Iraq, and Syria to hide and husband resources in the face of coalition gains. VEO-inspired and organized attacks in Europe further complicate integration efforts, isolate refugee and migrant communities, and make these groups vulnerable to recruitment. Despite the death of al-Baghdadi, ISIS and other VEOs still require persistent global pressure to prevent a resurgence and preclude future attacks against the Homeland, Europe, and our global partners.

China

China's aggressive economic and diplomatic activities in the USEUCOM AOR signal Beijing's desire to build influence in Europe to tilt the international order to its advantage. Seventeen Central and Eastern European nations have joined the China-led, 17+1 framework for cooperation. Many European countries, including the 17+1, are also signatories to China's One Belt One Road Initiative. China also pursues bilateral deals with targeted nations to build infrastructure and secure agreements

enabling cost-effective global trade. Chinese foreign direct investment and Chinese-backed business ventures in Europe provide China an avenue to exert influence at the expense of long-term United States, Allied, and partner interests.

Of particular concern are China's efforts to expand 5G networks into Europe through state-backed firms like Huawei and ZTE. These networks place intellectual property, sensitive technology, and private personal information at heightened risk of acquisition and exploitation by the Chinese government. This ongoing initiative, coupled with China's growing interest and investment in European ports and infrastructure, complicates steady-state and contingency operations. We continue to articulate this risk to European defense counterparts and highlight shared values, interests, and business practices that distinguish the United States as a partner of choice. We see encouraging signs from European nations as they become increasingly wary of strings attached to Chinese capital and investment.

USEUCOM OPERATIONS, ACTIVITIES, INVESTMENTS, AND OPPORTUNITIES

Strategy Implementation

We confront challenges in the USEUCOM AOR by adapting our thinking and approach to meet assigned missions as detailed in capstone strategy documents and maintain laser-sharp focus on expanding the competitive space with Russia. USEUCOM acts as Coordinating Authority for the Russia problem set by overseeing the global coordination of day-to-day operations, activities, and investments. In this role, USEUCOM advises the Secretary of Defense on resource, force structure, and synchronization of Department of Defense activities to deter Russia and curb its global malign activities.

USEUCOM tirelessly works with the U.S. interagency, Allies, and partners to address the evolving challenges posed by our adversaries. In this increasingly competitive security environment, we remain vigilant to ensure any challenge or challenger is met with a lethal, responsive, and resilient force, in all domains, in every strategic direction, and with a capable set of Allies and partners.

Support NATO's Defense of the Euro-Atlantic Area

USEUCOM's primary mission is to deter and "posture" to respond to aggression with the full weight of the NATO Alliance. In 2019, NATO took significant steps toward improving command and control and other military capabilities to meet the challenges and complexities of a dynamic security environment. NATO's Military Committee approved a new NATO Military Strategy, Comprehensive Defense and Shared Response. NATO continued implementation of the adapted NATO Command Structure with the establishment of two additional NATO headquarters: Joint Forces Command Norfolk, focused on maintaining trans-Atlantic lines of communications, and the German-led, Joint Support Enabling Command, focused on rear-area security and logistics coordination. These headquarters increase our ability to command and control and will organize and enable the deployment and sustainment of NATO forces in crisis or conflict. The EU, NATO, and USEUCOM have made progress improving infrastructure and transit permissions to facilitate the rapid movement of forces and logistic support across the Euro-Atlantic. We will "leverage" and "proof" many of these advancements during the United States led Exercise DEFENDER–Europe 20 this spring. The NATO Readiness Initiative will ensure NATO's ability to respond to aggression rapidly by identifying 30 battalions, 30 air squadrons, and 30 naval combat vessels, for use in 30 days. Finally, the forthcoming accession of North Macedonia as the 30th member of NATO demonstrates the vibrancy of the Alliance through its Open Door Policy while continuing to show the strength of purpose in defending shared values in the face of Russian malign influence.

NATO members contribute to common defense through capability investments, support to Alliance members, and continued participation in operations, missions, and exercises. Poland's acquisition of F–35s and Patriot air defense capability, Romania's acquisition of High Mobility Artillery Rocket System (HIMARS) long-range fires capability, and the fielding of F–35s by Italy, Netherlands, Norway, and the United Kingdom are increasing interoperable combat power across the AOR. NATO members provide host nation support to forward-stationed United States Forces across the region and participate in Alliance and U.S. multi-lateral exercises focused on enhancing responsiveness and interoperability. NATO members contribute forces to ongoing NATO and United States-led coalition missions advancing and securing our common interests in Afghanistan, Kosovo, Iraq, and Syria. NATO members help underwrite infrastructure investments, defraying costs of United States military construction in theater through the NATO Security Investment Program.

As NATO fortifies its position against a resurgent Russia, ballistic missile threats from Iran, and the continued threat of international terror groups, United States leadership within the Alliance is critical for ongoing activities to address competition and ensure combat-credible military forces are trained and postured to deter any would-be aggressor. USEUCOM plays an important role in exercising this leadership through our support to ongoing NATO operations, missions and engagements as NATO adapts to ensure it is an Alliance fit for purpose.

USEUCOM's participation in NATO operations and activities demonstrates U.S. commitment to the Alliance. United States soldiers stand ready in Poland as part of NATO's enhanced Forward Presence mission in one of four battlegroups holding the line against Russian aggression in Poland and the Baltics. United States aircrews fly alongside Allies as part of the Baltic Air Policing mission, helping to safeguard the sovereignty of Baltic airspace against Russian incursions. A U.S. destroyer operates as the flagship of Standing NATO Maritime Group One, responding to maritime challenges in the Atlantic, Mediterranean, and the Baltic Sea. The European Phased Adaptive Approach, including the Aegis Ashore in Romania and United States Aegis destroyer presence in the Mediterranean, provides the foundation of NATO's Ballistic Missile Defense capability.

The support Congress provides through the European Deterrence Initiative (EDI) has been critical to our deterrence and posture successes in the USEUCOM AOR. Through EDI, we have enhanced our presence in the theater to assure Allies and deter adversaries. Increases of forward-stationed and rotational forces continue to improve our posture and enable us to compete and win in a multi-domain crisis or conflict. EDI funding for exercises, training, and building partner capacity programs enhance the readiness and interoperability of U.S. and Alliance forces. EDI funds have also improved our ability to respond using prepositioned stocks and improved theater infrastructure. Together, these improvements enable the rapid deployment and sustainment of forces. Section 333-funded Security Cooperation initiatives are pivotal components to EDI. Programs such as the Black Sea Maritime Initiative and enhancing Baltic Integrated Air and Missile Defense are potent, regionally-focused, components of a resilient theater posture.

We continue to improve the infrastructure to enable swift response in any contingency. On the ground, we are establishing a U.S. armored division capability through the combination of forward-stationed and rotational forces. Army Prepositioned Stocks in Europe hold equipment and logistics for an Armored Brigade Combat Team and key enablers, facilitating increased lethality by rapidly integrating deployed units into operations. United States Army Europe, with extensive participation by NATO member states, will exercise this capability in the first deployment and exercise of a division echelon formation on NATO's eastern flank since the end of the Cold War in Exercise DEFENDER–Europe 20 this spring.

In the air domain, we are improving the mix of 4th and 5th generation fighter aircraft stationed in the theater along with rotational forces from the U.S. to enhance our IAMD networks and underwrite our Allies' efforts to enhance air defense systems. The build-out of European Contingency Air Operation Sets and Deployable Air Base Sets enhance the resiliency of our forces.

In the maritime domain, we see predictable Carrier Strike Group and Amphibious presence as key elements of an agile theater posture. The reactivation of U.S. Second Fleet provides necessary maritime command and control capability in the Atlantic, while reinforcing NATO's western flank.

In the space domain, we are building an integrated planning element to leverage the capability USSPACECOM is building to ensure our ability to plan and execute multi-domain operations.

We have leveraged the Dynamic Force Employment (DFE) model to re-affirm our commitment to Allies, deploy diverse military capabilities within the AOR to improve our deterrent posture, and demonstrate operational unpredictability to adversaries. DFE deployments have included posturing the HARRY S. TRUMAN strike group from the Mediterranean to the High North, deploying a Terminal High Altitude Defense (THAAD) battery to both Israel and Romania, Bomber Task Force missions throughout the AOR, and an F–35 deployment to exercise with European Allies, demonstrating our ability to rapidly generate significant combat power across the AOR.

Rotational Army, Marine, and Special Operations Forces (SOF) maintain a presence on the ground in strategic locations across the theater. These forces work alongside Allies and partners to deter aggression and build host nation defense capacity, interoperability, and readiness. DFE enables us to improve posture and unit readiness simultaneously. In Eastern Europe, a rotational Armored Brigade Combat Team and Combat Aviation Brigade are deployed as part of Operation ATLANTIC RESOLVE to deter and are postured to respond if required. Rotational Marine

Forces in Norway have improved an important position on NATO's northern periphery while training in Arctic conditions alongside our Norwegian allies. Additionally, the tangible improvements by individual European nations and the EU to enhance military mobility throughout Europe is increasing responsiveness and combat capability. The EU, in consultation with NATO and USEUCOM, is investing 6.5 billion euros for improvements to civilian and military dual-use transportation infrastructure across the continent.

As long as nuclear weapons exist, NATO will remain a nuclear Alliance. The fundamental purpose of NATO's nuclear capability is to preserve peace, prevent coercion, and deter aggression. The strategic forces of the Alliance are the supreme guarantee of the security of Allies and underwrite every U.S. military operation in Europe. Since 2015, the Alliance has placed increased emphasis on the role of nuclear capabilities in its overall deterrence and defense posture, and continues to adapt its posture to ensure its nuclear capabilities remain credible, coherent, resilient, and adaptable to the changing environment.

USEUCOM fully supports the continued modernization and recapitalization of our nuclear forces. Congress has recognized the importance of modernizing U.S. nuclear forces after decades of deferred recapitalization and has substantially funded these programs. USEUCOM fully supports recommendations in the 2018 Nuclear Posture Review to deploy the W76–2 Low Yield Ballistic Missile and to pursue development of a modern, sea-launched nuclear cruise missile. These actions would address a perceived deterrence gap, raise the Russian threshold for nuclear use, and disabuse the Russian Federation of the misconception there is any path to victory through nuclear escalation.

Counter Russian Malign Influence

Every day, USEUCOM and NATO compete to challenge and counter Russia's below-the-threshold strategy, and to counterbalance the multi-faceted and capable military power which underwrite its malign approach. We bring potent assets to this ongoing contest through coordination with the U.S. interagency and multi-national partners. A key platform for competing with Russia on this front is the Russian Influence Group. USEUCOM co-chairs this effort with United States Department of State's Bureau of European and Eurasian Affairs to promote Whole of Government cooperation and to identify, attribute, and counter Russia malign activities. Congressional funding for information operations activities enables USEUCOM to challenge adversary narratives and disinformation on a daily basis. Our SOF forces are another vital element of this approach working with European Allies and partners to enhance defense institutions, border security, and resilience to Russian malign attacks.

In the Cyber domain, our Cyber Component (Joint Forces Headquarters Cyber (Air Force)) and USEUCOM's Joint Cyber Center, in coordination with USCYBERCOM, continue to mature manning, facilities, and authorities to actively counter Russian cyber attacks. Together, these elements also assist with the enhancement of Allied and partner cyber capabilities. Recognizing worldwide cyber capabilities of China, Iran, and North Korea, we work with other combatant commands and interagency partners to enhance global cyber defenses and our ability to impose costs on aggressive adversary behavior.

National Guard and Reserve forces maintain vibrant relationships and unique access with Allies and partners through the twenty-six-year-old State Partnership Program (SPP). With more than 500 engagements, through 22 active programs annually, the SPP provides unique opportunities to cultivate regional expertise and strengthen personal relationships to improve readiness and alignment across the AOR.

Recognizing the state of competition between Russia and the West, escalation control/management must be foundational to our approach as military forces deter and posture to defend. We make extensive use of authorized military-to-military channels for safety deconfliction and to maintain strategic stability while remaining operationally unpredictable.

Assist in the Defense of Israel

USEUCOM underwrites the United States commitment to Israel's inherent right of self-defense from growing regional threats and our defense ties remain an important anchor of United States-Israel relations. USEUCOM conducts a robust series of exercises, activities, and senior leader engagements. We work closely with Israel's Defense Force to help maintain their qualitative military edge over any potential competitor. This assistance demonstrates our unwavering commitment to Israel, support for stability in the Levant, and the containment of Iranian malign activity.

Advance and Strengthen Strategic Relationships

Our strong bilateral and multi-lateral ties with European Allies and partners are invaluable and enable advancement of our shared interests in Europe and further abroad. USEUCOM's strong military-to-military relationships with defense counterparts across Europe signal continued United States commitment and are foundational to these national ties, particularly with countries such as Turkey, Ukraine, Georgia, and our Arctic partners.

Turkey remains a key United States and NATO ally. Turkey's military strength and strategic position further United States and NATO interests. Our military-to-military relationships remain close.

Along Russia's border, key United States partners see a brighter future to the West and resist Russia's efforts to hold them in a sphere of influence. Despite an ongoing Kremlin-sponsored malign influence campaign, violence by Russian-sponsored forcesin the Donbas region, and the purported annexation of Crimea, Ukraine continues to seek closer partnership with the United States. Security cooperation funding provided through the Ukraine Security Assistance Initiative enhances the capability of Ukrainian formations and EUCOM's stated mission to deter Russian aggression. American servicemembers on the ground in the Joint Military Training Group-Ukraine work shoulder-to-shoulder with Ukrainian forces, helping to build competence and confidence. NATO partnership mechanisms and funds reinforce these programs and present a unified and coherent approach in our collective support to Ukraine. Maintaining this positive momentum and continued USAI funding for lethal aid are essential to enabling Ukrainian forces' ability to defend their sovereignty against well-armed, Russian-backed forces.

In the Caucasus, where Russian forces occupy the Georgian regions of Abkhazia and South Ossetia, Georgia continues to be a steadfast partner and contributor to global security. Georgia is the largest non-NATO contributor to Operation RESOLUTE SUPPORT—NATO's ongoing Afghanistan mission. Georgia's commitment of 870 soldiers in support of United States operations in Afghanistan demonstrates the enduring strength of our strategic partnership. USEUCOM assists Georgian forces in preparing for this mission through the Georgia Deployment Program. We continue to support Georgian sovereignty and territorial integrity by improving their capability to generate and sustain capable defense forces through the Georgia Defense Readiness Program.

In the Arctic, changing environmental conditions present new opportunities for exploration, trade, and interaction. USEUCOM supports Whole of Government efforts to preserve the region as a place nations act cooperatively to address shared challenges and where U.S. national interests remain secure. USEUCOM leverages its close relations with USNORTHCOM and European Arctic nations to build Arctic awareness, increase operations, and strengthen the free and open order to secure the Arctic. These bilateral and multi-lateral strategic relationships enhance Alliance efforts to deter Russian aggression and advance shared interests.

Enable U.S. Global Operations

Europe and the United States remain the foundation for upholding a free and open international order. USEUCOM's unique geographic location is essential to enable global operations through synchronization, access, basing, and overflight permissions within Europe. From this key terrain, USEUCOM acts in support of multiple Combatant and Functional Commands, Allied, Coalition, and U.S. interagency operations. Basing, access, and overflight permissions are built upon mutual respect and trust between the U.S. and our sovereign Allies and partners, and should not be taken for granted. We work within the Whole of Government to maintain these relationships, permissions under bilateral agreements, and to resist Russian and Chinese strategic investments. Absent these agreements, we would be unable to meet our treaty obligations or protect vital national interests. Beyond strategic position, the shared values, trust, and longstanding relationships we have in Europe, with some of our most capable and willing Allies and partners on the planet, enable the U.S. to generate coalitions for worldwide operations in support of shared national interests.

Most recently, European Allies and partners proved essential in our national efforts to deter Iranian aggression. Our Allies and partners enabled USEUCOM's rapid posture shift of United States Forces in response to potential contingencies in the Levant. Key partners provided indispensable access, basing, and overflight permissions that enabled our ability to protect American citizens and diplomats in harm's way, had the security situation deteriorated. This recent example highlights the value of European support to enable United States global operations that preserve and defend our national interests worldwide.

Conclusion

The United States' position in Europe is an invaluable cornerstone of national security, built by our predecessors upon the wreckage of two world wars. Today, U.S. servicemembers in Europe continue to generate global peace and prosperity alongside our Allies and partners in the face of growing challenges. Revisionist actors, most notably Russia and China, present formidable, long-term challenges to preserving a Europe that is free, whole, and at peace.

We appreciate Congressional interest in these challenges and your continued pledge to meet them through support, funding, and authorities . . . particularly potent are support for European Deterrence Initiative and Ukraine Security Assistance Initiative (USAI). EDI enables USEUCOM's ability to enhance U.S. and Alliance readiness and posture to quickly respond in crisis or conflict. USAI ensures Ukraine has the resources and training to deter further Russian aggression. USEUCOM sits in a strategically significant part of the world and the dedicated men and women of the command unceasingly strive to be good stewards of the trust our Nation has placed in us. Together with the soldiers, sailors, airmen, marines, coast guardsmen, and civilians of USEUCOM, your support demonstrates our Nation's continued commitment to defend the Homeland forward and preserve peace for the one billion people living in the Euro-Atlantic.

Chairman INHOFE. Thank you.

General Lyons?

STATEMENT OF GENERAL STEPHEN R. LYONS, USA, COMMANDER, UNITED STATES TRANSPORTATION COMMAND

General LYONS. Thank you, Chairman. Chairman Inhofe, Ranking Member Reed, distinguished Members of the Committee, it is my honor today to represent the men and women of the United States Transportation Command who at this very moment are employed around the globe conducting mobility operations 24 hours a day, 7 days a week, 365 days a year.

Our mission at TRANSCOM is enduring, and that is to project and sustain the force globally at our time and place of choosing, thereby representing multiple options for our national leadership and multiple dilemmas for potential adversaries.

With 85 percent of the force element stationed in the United States, it is TRANSCOM's job to move forces and materiel in support of the Secretary of Defense's strategic priorities. Our National Defense Strategy underscores the importance of advancing our national security interests, deterring potential adversaries, and should deterrence fail, responding with overwhelming force to win. Power projection is a distinct U.S. comparative advantage, but we are not alone in this effort. Our vast global logistics networks are underpinned by a deep bench of allies and likeminded partners that facilitate critical access basing and overflight activities.

Today, I am confident in our ability to successfully execute our mission. This past year, with a no-notice alert, we moved the 1st Brigade of the 82nd Airborne Division to CENTCOM [Central Command] in less than 5.5 days. In total, we moved over 42 Army brigades, refueled multiple bomber task force and fighter movements, delivered 1.9 million passengers, over 6,000 patients, over 100,000 containers, and over 26 million square feet of cargo. Much of this activity largely went unnoticed. This is good news and a sign of sustained success across DOD's mobility enterprise.

However, as the Chairman pointed out, our world is changing. The National Defense Strategy describes a future in which TRANSCOM must be able to project the joint force under all-domain persistent attack. We acknowledge that our success today

does not guarantee success for tomorrow, and we are actively preparing to meet tomorrow's challenges working through contested environment war games, enhancing cyber defenses and resiliency, and improving the integration of the sustainment warfighting function across the joint operations.

To maintain readiness today, our aerial refueling and sealift forces require attention so they can continue to meet current and future challenges.

Before I close, I want to highlight the Department's ongoing work to improve the personal property program, an area of great interest for Congress. As directed by the NDAA, we have submitted a business case analysis and worked closely with the GAO [Government Accountability Office] on their report. Both reports underscore the need for change. The Department can no longer afford to operate a disparate confederation of government activities supervising its similarly disparate collection of hundreds of transportation providers. We are on track to restructure our relationship with industry through the award of a global household goods contract that will begin moving DOD families ahead of the 2021 peak season.

My message for DOD families: we heard your call for improved accountability, transparency, and quality capacity, and we are committed to deliver.

My message for industry providers: if you provide quality service for our military members, you have a place in the future program. We need every quality moving service, to include our small businesses, and appreciate all that you do.

It is an exciting time to be the commander of USTRANSCOM, and I could not be more proud of the team of professionals that create the strategic comparative advantage called the joint deployment and distribution enterprise.

I am pleased to join General Tod Wolters today and look forward to your questions. Thank you for your leadership and support to our amazing servicemembers.

[The prepared statement of General Lyons follows:]

PREPARED STATEMENT BY GENERAL STEPHEN R. LYONS

DELIVERING FOR OUR NATION

U.S. Transportation Command (USTRANSCOM) exists as a combatant command to project and sustain combat power at a time and place of the Nation's choosing. Powered by dedicated Active Duty, National Guard, Reserve and civilian men and women, we underwrite the lethality of the Joint Force, we advance American security interests around the globe, and we provide our Nation's leaders with strategic flexibility to select from a range of options while creating multiple dilemmas for our potential adversaries.

USTRANSCOM's mission is to conduct globally integrated mobility operations, lead the broader Joint Deployment and Distribution Enterprise, and provide enabling capabilities in order to project and sustain the Joint Force in support of national objectives. We accomplish this by balancing strategic mobility requirements for the Secretary of Defense and executing the Unified Command Plan roles and responsibilities assigned by the President. USTRANSCOM's mission is executed through three component commands and one subordinate command: the U.S. Army's Military Surface Deployment and Distribution Command, the U.S. Navy's Military Sealift Command, the U.S. Air Force's Air Mobility Command, and the Joint Enabling Capabilities Command.

The National Defense Strategy (NDS) calls on the Joint Force to be strategically predictable with allies and partners while being operationally unpredictable to competitors. USTRANSCOM was custom built for such a mission. We enable dynamic

force employment and deliver options daily. In 2019, USTRANSCOM executed 43 brigade-sized overseas movements totaling over 26 million square feet of military cargo in support of all six Geographic Combatant Commands. In the air, USTRANSCOM operated from all seven continents. We transported 1.9 million passengers and 1.3 million tons of cargo, and during air-to-air refueling operations we dispensed 956.6 million gallons of fuel. Our aerial evacuation crews executed 6,609 patient movements, including 84 with battle injuries. One evacuation in particular stands out as highlighting how USTRANSCOM integrates the incredible capabilities of our Joint Force to protect American interests globally. Last August, a U.S. soldier with life-threatening wounds required immediate evacuation from Afghanistan to a stateside hospital for complex trauma treatment. A team of 18 joint medical professionals—armed with key life-saving capabilities—made a 19-hr non-stop flight from Afghanistan to Texas aboard a USTRANSCOM aircraft. The soldier is alive today because of the U.S. values embodied in the Joint Force and enabled daily by USTRANSCOM.

As envisioned in the NDS, our operational focus has shifted from routine force rotations in Southwest Asia to posturing for Great Power Competition globally. Our accomplishments from 2019 underscore USTRANSCOM's ability to respond anywhere in the world at scale, in order to assure our allies, deter our adversaries, and ensure our national leaders always have options.

STRATEGIC ENVIRONMENT

The world is changing. In the past, we were able to deploy our forces when we wanted, assemble them where we wanted, and employ them how we wanted. In the future, the NDS calls us to be able to project and sustain the Joint Force under persistent, all-domain attack. Our competitors, such as China and Russia, clearly recognize the United States' ability to rapidly scale and deliver the Joint Force globally as a strategic comparative advantage, and they seek to deny it. Today, adversaries are active in the cyber domain. They infiltrate contract value chains. They invest in critical global choke points. They attempt to erode geopolitical access. They develop increasingly potent anti-access and area-denial weapons. These are clear indicators of their intent and reflect the changing character of war. In the future, strategic mobility will remain critical to delivering dynamic and credible response options to guarantee our national security interests. Strengthened by a historic past but with a critical eye towards the future, USTRANSCOM aims to remain ready to answer our nation's call.

USTRANSCOM'S WARFIGHTING FRAMEWORK

The key to conducting globally-integrated mobility operations is the dynamic synchronization of our 1) global mobility posture, 2) global mobility transportation capacity, and 3) global command, control, and integration. These critical elements create USTRANSCOM's warfighting framework and allow USTRANSCOM to respond to strategic priorities in both time and space.

GLOBAL MOBILITY POSTURE

Global Mobility Posture is the foundation of power projection, starting in the Continental United States (CONUS) with Department of Defense (DOD) installations and the seaports, railways, and the highways that connect them. In close coordination with the Department of Transportation, the Strategic Seaport Program, Strategic Corridor Rail Network, and Strategic Highway Network provide 23 strategic seaports, 15 alternate seaports, 37,000 miles of strategic railways, and over 62,000 miles of interstate and major highways to project combat power from the fort, to the port, and on to the battlefield.

Beyond our nation's borders, USTRANSCOM relies on a deep bench of allies and like-minded partners that have stood with us for over 75 years in defense of freedom. These allies and partners provide access to key regions and support a substantial basing and logistics system which expands our nation's global reach. Through a flexible, redundant, and resilient global posture, USTRANSCOM enables the DOD to project and sustain a combat credible force that can deter adversaries, protect our national security interests, and when necessary, respond to win decisively.

GLOBAL MOBILITY CAPACITY

Global Mobility Capacity includes the transportation conveyances and platforms used to move troops, fuel, and equipment within global transportation networks, including rail, motor transport, sealift, aerial refueling, and airlift. 60–70 percent of

USTRANSCOM's mobility capacity resides in the reserve component, underscoring the importance of a Total Force approach.

USTRANSCOM is inextricably linked to the commercial transportation industry which provides important augmentation in peace and war. Utilizing commercial partners expands USTRANSCOM's global reach as well as access to valuable commercial intermodal transportation systems and freight management capabilities, but carries with it vulnerabilities we will need to mitigate. Emergency preparedness programs like the Civil Reserve Air Fleet (CRAF), and Voluntary Intermodal Sealift Agreement (VISA) augment USTRANSCOM's global mobility capacity during contingency operations. Incentive programs like the Maritime Security Program offset costs incurred to maintain a U.S.-flagged fleet, strengthening the American sealift industry for both economic trade and national defense. Currently, these programs are fully subscribed and funded. This year, on behalf of the Department, USTRANSCOM is leading a Congressionally-directed study on U.S.-flagged fuel tanker vessel capacity, evaluating accessibility to domestic and international tankers in order to satisfy the demands of the NDS in times of war.

With 85 percent of the Joint Force based in CONUS, Global Mobility Capacity is critical in projecting overwhelming military force at a time and place of our Nation's choosing, and it serves as a deterrent to conflict by demonstrating our ability to credibly defend our security commitments. Overall, we assess USTRANSCOM's global mobility capacity as adequate, but with elevated and increasing risk. NDS requirements in daily competition and in times of war place high demands on aging mobility capabilities. When coupled with adversaries that have the capability and intent to contest our operations across all domains, it creates a daunting environment for future operations. Specifically, USTRANSCOM assesses elevated risk in our two highest priorities: Aerial Refueling and Sealift.

AERIAL REFUELING

The aerial refueling fleet is USTRANSCOM's most-stressed capability and number one readiness concern. The aerial refueling fleet continues to underpin the Joint Force's ability to deploy an immediate force across all NDS mission areas and is comprised of KC–135, KC–10, and KC–46 aircraft.

The KC–46 is an important aspect of tanker modernization as it will enable us to project and employ the force in a complex battlespace against a high-end adversary. However, delays in delivery of capable KC–46s combined with reductions of KC–10s and KC–135s create a critical and deepening gap in taskable aerial refueling aircraft and aircrews for the next 5–7 years. This combination of factors elevates risk to not only wartime missions, but also in day to day global operations across multiple combatant commands. Reduced capacity limits options and constrains decision space for senior leaders in crisis, as they are confronted with an earlier mobilization timeline to generate adequate capacity. For Combatant Commanders to compete daily, the Department must retain sufficient operational aerial refueling capacity to provide adequate support to the Joint Force during the transition to the KC–46. As the timeline to field taskable KC–46s continues to evolve, USTRANSCOM recommends re-evaluating aerial refueling force structure plans annually.

SEALIFT

USTRANSCOM's number two readiness concern is the Strategic Sealift Fleet. The sealift fleet is responsible for moving approximately 90 percent of wartime cargo. Sealift readiness rates have declined to 59 percent compared against a goal of 85 percent, with vessel material condition and age as the primary factors. Most sealift ships are reaching the age where maintenance and repair costs are escalating and service-life extensions will not yield proportional increases in readiness. Starting in the mid-2020s, the sealift fleet will lose 1–2 million square feet of capacity each year as ships reach the end of their useful life. That's enough space to move two to four Brigade Combat Teams in a single voyage. By the mid-2030s, over half the sealift fleet will be unusable, placing an unacceptable risk on the Joint Force, especially the Army, to deliver large-scale combat power over the ocean. To prevent this detrimental loss of capacity, the Department needs to recapitalize the fleet with newer and more reliable vessels. USTRANSCOM continues to support the Navy's plan to acquire used vessels as the near-term solution that yields the greatest value. Currently, Congress has provided authority to purchase seven vessels, and the Navy has provided funding for two in fiscal year 2021. This is an important first step to improve fleet reliability, but we have much work ahead to lay out a long-range plan.

In September the DOD conducted the largest no-notice sealift activation exercise in the command's history, assessing the entire fleet and activating over half the surge sealift vessels. The exercise validated known concerns regarding the degraded

readiness of the Organic Surge Fleet. Simply put, the surge fleet is challenged today to be immediately available for large-scale inter-theater force deployment without delays or impacts to force closure. These findings reinforce the need for recapitalization, appropriate levels of resourcing for maintenance and repair, and continued emphasis on readiness improvements.

GLOBAL COMMAND, CONTROL, AND INTEGRATION

Global Command, Control, and Integration is central to our ability to make decisions at echelon to create desired mobility outcomes. It creates shared understanding in order to align scarce mobility resources consistent with the highest strategic priorities. Global Command, Control, and Integration is imperative to retain our strategic comparative advantage to project and sustain the Joint Force globally. As we prepare to confront the contested environments described in the NDS, we are working on several initiatives to strengthen mission assurance in the cyber domain, and advance decision making across the USTRANSCOM enterprise.

CYBER DOMAIN MISSION ASSURANCE

Cyberspace is a warfighting domain, without sanctuary, in which capable adversaries continuously attempt to degrade our Nation's ability to project the Joint Force globally. We continually evaluate our large and complex attack surface, evolve key cyber terrain, secure our cyber area of operations, and actively defend our ability to conduct global command and control. USTRANSCOM maintains a strong relationship with U.S. Cyber Command (USCYBERCOM) and the Intelligence community, providing increased understanding of adversaries' intent. Several rigorous exercises matured our ability to request active defensive measures from USCYBERCOM, leveraging their unique authorities to assure our global command and control in a contested environment. In addition USTRANSCOM is pursuing numerous technical solutions to harden our key cyber terrain, to include a trusted transaction pilot with USCYBERCOM.

In Great Power Competition, we acknowledge our commercial partners are both a strength and a potential target. Since 2017, we've contractually required our CRAF, VISA, and Universal Services Contract providers to perform annual self-assessments based on National Institute of Standards and Technology (NIST) standards for cybersecurity, and we use these self-assessments to identify vulnerability trends and share best practices with industry. We continue to provide targeted recommendations to help our commercial partners improve their own cybersecurity. Lastly, we are reviewing data sharing requirements to limit our exposure to adversaries, and we're strengthening cybersecurity language in our information technology and software development contracts. Overall, we assess our transportation providers are taking cybersecurity seriously, and the NIST standards will help them improve their security and resiliency – but commercial companies will always be challenged to keep out advanced persistent threat actors.

ADVANCE DECISION MAKING

Information technology and computational processing continues to advance rapidly as we approach game changing capabilities like artificial intelligence, machine learning, and advanced analytics, all of which have enormous potential to improve USTRANSCOM mission outcomes. As we evolve to meet tomorrow's challenges, we are enhancing our ability to understand the operational environment, improving our ability to develop options, and advancing our ability to make decisions at echelon. Cloud computing, balanced cybersecurity, information sharing, innovation at echelon and warfighting outcomes serve as our guiding principles as we modernize our digital portfolio.

The foundation for our success starts with data. USTRANSCOM fully endorses the DOD's Joint Enterprise Defense Infrastructure cloud capabilities and is an early adopter of cloud technology. We have migrated 14 programs to a commercial cloud environment. We are establishing an Enterprise Data Environment within the cloud, coupled with analytic technologies, to speed decision making, free up human capital, accelerate learning, reduce costs, and improve productivity.

DEFENDER–EUROPE 20

DEFENDER–Europe 20 exemplifies how USTRANSCOM employs this warfighting framework and addresses the contested environment described by the NDS to deliver national objectives. Over the next 4 months USTRANSCOM is executing the largest projection of force to Europe in 25 years. 20,000 troops and 1.6 million square feet of military cargo will flow from 26 CONUS origins through a di-

verse network of ports, move across simulated contested waters under the watch of Second and Sixth Fleets, and arrive as a combat credible force in EUCOM. As we exercise the global posture, mobility capacity, and global command and control required to favorably shape Great Power Competition, DEFENDER–Europe 20 is a powerful opportunity to deter potential adversaries, strengthen alliances and partnerships, and evaluate future contested environments.

DEFENSE PERSONAL PROPERTY PROGRAM (DP3)

After assuming command in August 2018, I received letters from 15 members of Congress and more than 40 staff inquiries detailing servicemember concerns with the Defense Personal Property Program. Issues with industry accountability, a shortage of quality capacity in summer months, and a general lack of transparency within the Department were common—and accurate—criticisms. Since that time—and after personal consultation with Service leaders and industry executives—USTRANSCOM worked to fundamentally restructure our relationship with industry to generate the quality capacity to meet DOD's peak demand and enable the Department to affix the accountability and responsibility missing in today's program.

The Fiscal Year 2020 NDAA included several DP3-related provisions, including a requirement for a Business Case Analysis (BCA) on the Global Household Goods Contract (GHC) and a GAO report on the effects of this contract on DOD Families. The BCA underscored the value of restructuring DOD's relationship with industry, while GAO's draft report makes helpful recommendations on overall DP3 management but highlights no flaws in our approach with GHC. The source selection process is underway and our initial review of proposals is encouraging, with credible candidates offering solutions to benefit DOD families at costs in-line with spending on today's program. We remain on track to award GHC to a single move manager this spring. Military Families have been our North Star throughout this process. Thank you for your continued support to improve the relocation experience for DOD families.

EXECUTIVE SUMMARY

In summary, USTRANSCOM provides the DOD with the ability to project and sustain the Joint Force, deploying combat power to the right place, at the right time, and in the necessary scale to be immediate, lethal, and decisive. Operating around the globe and around the clock, our ability to project military forces is a distinct advantage unmatched by any nation, and it serves as the cornerstone of the Joint Force's ability to meet national objectives.

Today, USTRANSCOM assesses our ability to execute the NDS as adequate, but with elevated and increasing risk, specifically in the areas of Aerial Refueling and Sealift. Improving mission assurance within the cyber domain remains a USTRANSCOM top priority. I thank Congress for their past and continued support of this organization as we work together to defend the Nation and advance American interests.

Our purpose is enduring, but our success is not guaranteed. We must remain vigilant. Underwritten by the dedicated soldiers, sailors, marines, airmen, coast guardsmen, civilians, and commercial partners performing USTRANSCOM's mission, I am confident in our ability, and I'm proud to stand with them in our collective commitment to our nation's defense and dedication to America.

Together, We Deliver!

Chairman INHOFE. Thank you, General Lyons. I appreciate your bringing up that issue. We spent a lot of time on that in the defense authorization bill addressing that, and I think you are carrying it out exactly as we had intended you to do that.

As I mentioned, General Wolters, we appreciate the briefing that we got in Germany, and you covered something I think that might be worth repeating here. In October 2019, the news report suggested that Russia deployed as many as 10 submarines for some of the largest fleet maneuvers since World War II. Can you describe, as you did this last week, how the pace and scope of Russia's maritime activity has changed in recent years and what implications that has for EUCOM?

General WOLTERS. Yes, Chairman. We took note of the Russian undersea activity in the summer/fall of 2018 and compared it to

what Russia executed in the summer/fall of 2019. What we saw was a 50 percent increase in the number of resources in the undersea that Russia committed to both those out-of-area submarine patrol operations.

What we also witnessed was an improved degree of good order and discipline on behalf of the Russian sailors. This observation is one more reflection about how important it is to continue to improve our competitive edge to buy down the risk to ensure that we can operate with freedom.

Chairman INHOFE. Okay. That is good.

On that same trip we went through Rota, Spain, when they were talking about adding two United States destroyers to the four that are already there. Is that something you support? Where does that fall into what level of request you have for additional forces in EUCOM?

General WOLTERS. Chairman, it is precisely in line with our request for two additional destroyers, and what I am also proud to report, with the support of this Committee through EDI, we have been in a position to where we have been able to improve and mature the infrastructure at Rota. If you asked me to accept two more destroyers tomorrow, we actually possess the infrastructure at Rota to be able to house those two additional destroyers, a reflection of the value of the funds for deterrence.

Chairman INHOFE. Yes. They made that very clear.

All right. General Lyons, I commented in my opening statement about the KC–46. Some of us went from here in Washington up to Seattle to fly the first ones down to Altus Air Force Base, and I remember at that time, we had the Secretary of the Air Force, Deborah James, there. I recall making an observation, and that was that in 1959, two wonderful things happened. Number one, I got married, and number two, the first KCs were actually delivered to Altus Air Force Base. At that time, we did not know that there was any problem. At least, I did not know, and I do not think anyone else did either because we were just rejoicing. The fact that that had lasted 60 years, and she even commented it looks like that is going to enhance the prosperity of Altus Air Force Base for the next 60 years. So that was something we were not aware of, and so now you got a problem, and that problem, of course, is what are we going to do to fill that function. I know you have given a lot of thought to it. Why do you not let us know where you are right now? You know, we have been doing this for years, getting rid of old things before we got the new ones online ready to perform. So kind of tell us where we are. What is that going to do with the preparations that we have already made for the KC–135's and the KC–10's to actually be downgraded?

General LYONS. Chairman, thanks.

As you mentioned in your opening comments, aerial refueling as a force element is the most stressed force element in the TRANSCOM portfolio, both for day-to-day operations, as well as for high-end conflict operations.

I will defer to the Air Force on the particular programmatics and technical aspects of the KC–46 as it comes online.

Chairman INHOFE. Yes, and I mentioned that to you before this meeting that we will be having the Air Force's posture hearing, and we will want to talk about that at that time too.

General LYONS. Yes, sir.

What I can describe is operationally. As we bring the KC–46 on and we take on more jets and we convert more crews, when that capability is not usable and it is not today presentable to the joint force for some technical deficiencies, that means a dip in operational capability for the joint force in day-to-day operations in the active component if in fact we continue to retire the KC–135 and the KC–10 at the rate that was proposed by the Air Force. So we are working very, very closely with the Air Force and the Department to retain a level of capability, of legacy capability, so we can continue to support joint operations.

Chairman INHOFE. So you are retaining some that you had not planned on retaining had we not had the problem with the KC–46, I assume.

General LYONS. Sir, we are working Air Force now. There was some number of planes that were retired, were programmed for retirement in fiscal year 2021, as you saw in the budget submission, that we believe must be retained, 13 KC–135's and 10 KC–10's that we believe must be retained during the conversion.

Chairman INHOFE. That is good.

Senator Reed?

Senator REED. Well, thank you very much, Mr. Chairman.

General Wolters, the European Command's strategy document states meeting the challenge of countering the Kremlin-sponsored malign influence campaign necessitates a whole-of-government solution. So do you assess currently that we have a synchronized campaign prosecuted in a unified manner to address malign influence, particularly directed at the 2020 election?

General WOLTERS. Senator, I think our campaign momentum is improving in that area. As you are familiar with, we established 2 years ago the Russia integration group that bears the responsibility to represent USEUCOM with the United States and with many NATO nations to align a whole-of-nation, whole-of-government activity and activities below the level of actual kinetic conflict to ensure that we can have better control of the information domain.

I think we are to a point to where we expect to do better, and I think that is a good place for military leaders to be. I will tell you that I am pleased with the campaign momentum. I have had the opportunity to visit with many of the U.S. entities and national entities that represent whole-of-government and whole-of-nation activity to provide more influence in the information domain, and I am pleased with the progress.

Senator REED. Thank you.

Can you just give me your assessment of the current state of alliance cohesion within NATO? I would assume that at a military level, there is one sort of analysis and at a political level, another. Can you touch on both?

General WOLTERS. Senator Reed, the mil-to-mil [military-to-military] alignment that I see with the United States and NATO with the North Atlantic extension through the Euro-Atlantic is as strong

as I have ever witnessed. I have had the opportunity to serve in NATO since 1983.

I am pleased to report that at the political level, as a result of recent documents that were approved at NATO at the political level, we are seeing greater cohesion as well. For the first time in over 6 decades, we at NATO approved the first NATO military strategy. It is a document that is classified NATO secret that codifies the threat and codifies the activities that we need to embrace to more comprehensively defend. All 29 nations agreed to that NATO military strategy, and I think that is a reflection at the political level and the military level of improving cohesion.

Senator REED. Thank you.

General Lyons, we talked about the shipbuilding program. Can you just give us a quick sort of summary of where are at and where we have to go?

General LYONS. Yes, Senator, I sure can.

As you know, we depend on sealift to carry about 90 percent of our cargo capacity in a wartime scenario. Our current readiness of the fleet is below where we need it to be. You indicated that it is rapidly reaching end of useful life. We are working very closely with the Navy. You mentioned the authorization to buy seven used vessels. I anticipate we will purchase two, the first two, in 2021, working very, very closely with MARAD and the Navy. My view is we should have that first vessel in the first quarter of fiscal year 2021.

Senator REED. But we are far below what we would need for a surge—a significant military operation at this point. Correct?

General LYONS. Yes, sir. That is correct. We need a much longer plan.

Senator REED. The Chairman touched upon the air refueling, which I think is another critical weakness. We talked about that in the office.

One of the areas that is ubiquitous everywhere is cyber, and you are in the position where you not only have to have a military organization that you have to keep sort of ahead of the curve, but you have literally hundreds of private companies, some large, some small. Can you give us an idea of the cyber challenges that you are facing, and do we have a significant vulnerability there?

General LYONS. Senator, the way I would characterize the cyber vulnerability is probably the most consequential to the mobility enterprise as we look at it. So we spend a lot of time on this particular issue looking at resiliency, looking at a number of other issues to harden our defenses, et cetera. Particularly with regard to the commercial carriers which is I think what you are asking, we have included contract language in all of our contracts. We check compliance. We have self-reporting mechanisms. We believe that their level of cyber hygiene has increased significantly from this level of effort.

I would not come here today and tell you that they could survive a threat from a persistent threat actor, and so we have sufficient resiliency in our contracts as well.

Senator REED. Just to follow on, do you have the ability to check, you know, send in teams, no-notice inspections? You know, the old line, a unit only does what the commander checks. If you are not

checking, you could have everything in the contract you wanted and you would have nothing.

General LYONS. Senator, we do not have the authority that you are describing.

Senator REED. Do you need that?

General LYONS. There are some second and third implications on those kinds of activities.

Senator REED. Can you get back to us on that?

General LYONS. I can, yes, sir.

[The information referred to follows:]

General LYONS. I often get asked the question as to whether we need additional authorities to 'inspect' commercial partner cyber compliance (implied is access to their networks, etc.). From a practical point of view, we don't have the technical expertise or bandwidth for such a mission, nor does USCYBERCOM. USTRANSCOM is not advocating for the authority to conduct nonconsensual intrusions into an industry partner's network. Our current authority is based upon our contractual relationship that our industry partners agree to voluntarily. There are several issues that impact the inspection of contractor networks. For instance, these carriers are U.S. companies and there are limits on the collection of U.S. persons. Additionally, the companies have Constitutional rights in their systems under the 4th Amendment, and the Posse Comitatus Act prevents DOD from serving in a law enforcement capacity unless authorized by law. However, all these issues are resolved if the contractor provides consent to inspect its network. Therefore, if we include the ability to inspect as part of the contract, the company is consenting to our inspection, and we are conducting that inspection for valid purposes unrelated to law enforcement or intelligence. The downside to gaining access via consent, including consent gained through contract, is that the company can withdraw their consent at any time. While that withdrawal may result in the government taking action under the Contract Disputes Act and may include termination, it will not result in government access to the network. Thus, the more stringent we make our access requirements, the more it may limit competition since some contractors may not compete for contracts if it means allowing full access to and monitoring of their IT systems. The Government can perform onsite NIST 800–171 compliance assessments without obtaining access to a contractor's networks. The NIST Handbook 162 provides guidance on how to perform assessments by reviewing policies and procedures, interviewing staff, observing contractor IT personnel performing their duties, and inspecting physical security and hardware environments. If we wanted to perform these assessments, we would need to update our contract language with the option to perform an inspection if the contractor provides consent. We are encouraged by the newly released Cybersecurity Maturity Model Certification (CMMC) and its provisions for third party assessments. As the CMMC program matures, we will consider adding the CMMC requirement in our contracts and requiring third party assessments of our contractors' compliance with NIST 800–171.

Senator REED. I am not surprised the 1st Brigade of the 82nd conducted an outstanding operation. Thank you.

General LYONS. Airborne, sir.

Chairman INHOFE. Thank you, Senator Reed.

Senator Wicker?

Senator WICKER. Thank you, Mr. Chairman.

Gentlemen, thank you for your great service to the United States.

Let me ask you, General Wolters. The proposed OMB [Office of Management and Budget] fiscal year 2021 budget requests $705.4 billion for DOD. This represents three-tenths of 1 percent over the current fiscal year. In other words, the proposed budget buys us fewer resources than the current year considering inflation. Am I correct there?

General WOLTERS. Yes, Senator.

Senator WICKER. Let me just ask you this. Do we need fewer security resources in the European Command next year than we do this year?

General WOLTERS. Senator, we need more.

Senator WICKER. In addition to that, the Secretary of Defense, the Joint Chiefs of Staff, and the National Defense Strategy Commission have all endorsed 3.5 percent real growth. Is that also your opinion, General Wolters?

General WOLTERS. Yes, Senator.

Senator WICKER. General Lyons, is that your opinion also?

General LYONS. Yes, Senator.

Senator WICKER. I appreciate the distinguished Chairman mentioning early on in his questioning Rota, Spain, and I am glad that he and his team visited there—a bipartisan delegation visited there just the other day.

The DDGs are the workhorse of the Navy. General Wolters, in European Command how does a mere three-tenths of 1 percent increase over the current fiscal year affect what we are going to be able to do there with the DDGs, with the two extra DDGs?

General WOLTERS. Senator, every cent counts. Those two additional DDGs would allow us the opportunity to continue to improve our ability to get indications and warnings in the potential battle space and also dramatically improve our ability to better command and control. Because of the flexibility of those resources, they can comprehensively defend in all geographical areas in support of Europe. Those destroyers are critical to improve the campaign to deliver peace, particularly in the areas of indications and warnings and command and control.

Senator WICKER. Thank you. Thank you for that. We are going to certainly try to help you I think up and down the dais here on a bipartisan basis on the resources that we need to defend America and Americans.

It is interesting that the leader of EUCOM would mention in the first few seconds of his statement not only Russia but China. Could you enlighten us about where you are seeing increased problems with China and increased influence in the European theater from China?

General WOLTERS. Senator, two areas. The first is seaport equities, and the second is 5G Huawei.

What we have seen in several critical nations on the periphery of Europe is an economic majority on behalf of China and investment for seaports in critical nations like Belgium, Italy, France, and Greece. That is a large concern to all of the NATO nations. When you start to do the collective math, you discover that China has access to 10 percent of the shipping rights into and out of Europe. Those are daunting figures that should lead one to believe that we need to continue to be vigilant with respect to seaport equities on the economic side.

The second issue happens to be Huawei and 5G. I am firmly aware of several European nations who have a tendency to lean towards Huawei and 5G. My concern goes back to the soldiers. Without the appropriate network protection, there is a potential compromise of technical data and personal data, and that is not to the

good order and discipline of our United States soldiers and our NATO soldiers.

Senator WICKER. Finally, General Wolters, a number of us have been involved on a member-to-member basis with our parliamentary brothers and sisters in the OSCE [Organization for Security and Co-operation in Europe] Parliamentary Assembly. We have a great new Ambassador to the OSCE, Ambassador Jim Gilmore. To what extent is the OSCE organization important to you and to providing you information that you need?

General WOLTERS. Very important, Senator, and I think it builds incredible trust for the Euro-Atlantic link. Your hearings that you held in Gdansk last year were a huge boost in trust not only between the United States and Poland but throughout all of NATO.

Senator WICKER. Thank you.

Thank you, Mr. Chairman.

Chairman INHOFE. Thank you, Senator Wicker.

Senator Blumenthal?

Senator BLUMENTHAL. Thanks, Mr. Chairman.

Thank you both for your service and thank you for being here.

Many of my colleagues and I have received briefings as recently as this morning from other departments and agencies in the administration about the coordinated response to the coronavirus. I am also concerned about the Department of Defense response to protect servicemembers and family members that are stationed at military installations abroad, the rapid spread of this virus, as well as the number of diagnoses and deaths in countries where Americans are stationed. A lot of Americans are stationed in, for example, South Korea. This is very, very concerning. I am focused on ensuring that the Department is reevaluating and updating procedures and actions necessary to keep our servicemembers and their families safe.

General Lyons, your command manages the inter-theater movement of our servicemembers in and out of areas that have been impacted by the coronavirus, making you really uniquely positioned to address this issue. What action has your command taken to mitigate the spread of COVID–19 and ensure the well-being of our servicemembers and their families? Do you need additional resources? Is there more we can do to help you? What more do you think should be done?

General LYONS. Senator, I agree with your concern. The Secretary of Defense has indicated that protection of the force is his number one priority regarding the coronavirus.

U.S. Northern Command is the lead for the Department, working very closely in support of Health and Human Services. We are connected with them on a daily basis, a frequent number of times a day, and we are watching this very, very closely for any implications on global mobility.

Senator BLUMENTHAL. What specific actions are you taking?

General LYONS. Inside the transportation enterprise, locations like Travis Air Force Base has become a receiver for potential folks coming out of the theater, particularly the Indo-Pacific. We are not taking particular health protection measures inside the command other than to protect the force, but in a more board sense, we are

in support of Health and Human Services and that is done through the lead of USNORTHCOM.

Senator BLUMENTHAL. General Wolters, do you feel you have been given the necessary resources and other tools to protect American servicemen and women and their families in Europe?

General WOLTERS. Yes, Senator, and we have also been given the appropriate authorities. As we speak in Europe today, we have over 300 cases, and the nation that is of most concern is Italy with 6 reported deaths. We have restricted travel to certain zones, and we require all mil air arrival flights to be screened for the virus.

Senator BLUMENTHAL. Are you taking any additional steps to constrain travel by service men and women or their families on leave and so forth?

General WOLTERS. We have in what we feel are the affected areas, in particular two states inside of Italy.

Senator BLUMENTHAL. Do you have plans to restrict travel in any other states?

General WOLTERS. We anticipate the need may arise in Germany, but that is still to be determined.

Senator BLUMENTHAL. General Wolters, in your posture statement, you highlight American servicemembers on the ground in the Joint Military Training Group Ukraine work, and you note they serve shoulder to shoulder with Ukrainian forces. Can you expand on the important efforts to deter Russian aggression there?

General WOLTERS. Yes, Senator. The Joint Military Training Group initiated military training team activity on a rotational basis starting in 2016, and they also began about 6 months later to rotate military training teams in the special operations category. There are several phases of the long-range plan, and here we are 3½ years later and we are to phase 3, which puts those military training teams that represent the Joint Military Training Group—Canada and UK [United Kingdom] are other participants. Those teams are now in observer status because of the demonstrated expertise of the Ukrainian armed forces and the conventional force in the SOF [Special Operations Forces] side of the house. We are very pleased with the progress of the Ukrainian armed forces, and the stronger that they are and the more that they embrace democratic values, the greater the alignment with the West, which is exactly where need to head.

Senator BLUMENTHAL. Thank you. Thank you very much, gentlemen. My time has expired. Thanks for your service.

Chairman INHOFE. Senator Fischer?

Senator FISCHER. Thank you, Mr. Chairman.

I would like to thank both of you gentlemen for your service and also to thank the men and women who serve under you.

General Wolters, how would you assess the progress that has been made in implementing the NDS [National Defense Strategy] and its emphasis on prioritizing strategic competition with Russia?

General WOLTERS. Senator, I am very pleased. As I mentioned earlier on one of the questions from your colleagues, for the first time in many decades, we approved the NATO military strategy, and it looks very similar to the United States' National Defense Strategy. I believe this is one area that reflects the powerful alignment and a willingness on behalf of NATO to lean forward with re-

spect to what we do across the full spectrum from competition to crisis to conflict, which is exactly what we called for in the NDS. So I am pleased with the ever-improving alignment in NATO and with our European nations.

Senator FISCHER. What do you think is the biggest challenge that you have in fulfilling the goals of the NDS in Europe?

General WOLTERS. It is to do what we can to cure the malign influence on behalf of Russia, and that requires a more concentrated effort in the competition phase of embracing a potential foe. What we have heard throughout many of the questions today are the activities that we have to embrace in 21st century military below the actual activities of kinetic conflict and understanding what we are doing and what the return on investment is, and we are making rapid improvement in those areas.

Senator FISCHER. So in order to improve, basically you need to work together more on your training?

General WOLTERS. Yes, ma'am.

Senator FISCHER. Do you feel that you have come together or are coming together with other NATO partners in facing what the threats are?

General WOLTERS. We are, and the reflection of that is the approval of a NATO military strategy that actually codifies those threats and agreement on behalf of the 29 nations to identify those threats.

Senator FISCHER. You and I yesterday—we discussed the growing recognition that there is among the NATO partners on the important role of our nuclear deterrence in keeping the peace. Obviously, we all understand that our deterrent, the triad, is the bedrock of the security of this country.

Can you tell us a little bit about what you are hearing from our NATO partners when it comes to the deterrence in private conversations, if you can share that, but also in public the support that you see?

General WOLTERS. Senator, there is a greater degree of awareness of the importance of deterrence, and as we look at the success that NATO has had for the last 7 decades to deliver peace, one of the elements has to be the triad that exists from the United States and its representation to nuclear deterrence on the European continent. It has been very, very effective, and the nations understand more and more about that with each passing day as a result of embracing deterrence to a greater degree than we have in the past.

Senator FISCHER. Would you say that our partners in their embracing of this deterrence are also becoming better messengers within their own countries about the importance of not just a strong NATO, but of having that strong nuclear deterrence, that umbrella, that is so vital in their freedom as well?

General WOLTERS. Absolutely, Senator. It has to do with the responsibility that we feel in NATO to generate peace not just inside of the boundaries of Europe but on the periphery. As we embrace missions for NATO mission Iraq and as we embrace Operation Resolute Support in Afghanistan, we see how important it is to proliferate deterrence to the max extent practical to achieve greater peace.

Senator FISCHER. What are your views, sir, on adopting a so-called no-first-use policy? Do you believe that that would strengthen deterrence?

General WOLTERS. Senator, I am a fan of flexible first-use policy.

Senator FISCHER. Do you believe developing ground-launched conventionally armed intermediate range weapons will enhance your ability to deter Russia?

General WOLTERS. It will. It dramatically complicates an enemy's task.

Senator FISCHER. Thank you, sir.

Chairman INHOFE. Senator Kaine?

Senator KAINE. Thank you, Mr. Chair.

Thanks to the witnesses. I appreciated the opportunity to visit with you each before the hearing today.

General Wolters, I want to ask you a question. In your testimony—I think it was maybe in a back and forth with Senator Reed—you talked a little bit about increased Russian sub activity in the Atlantic. The President's Budget proposes to cut the *Virginia*-class sub program 50 percent by only funding one of the two in the block buy. On February 13, the DOD used its general transfer authority to move $3.8 billion of Pentagon money to the general drug account for use on the southern border.

Part of those funds that were moved was a reduction of $180 million from the P–8 Poseidon aircraft program. As you know, that airplane is a modified Boeing 737 that is used as a sub hunter. It usually operates from Iceland or elsewhere in Europe to work with the fast attack subs like the *Virginia*-class to track Russian sub activity coming from the Greenland-Iceland-UK gap.

Without commenting on the budget, I would like you to talk about the importance of both the *Virginia*-class sub and the P–8 Poseidon in countering Russian sub activity.

General WOLTERS. Senator, they are vital capabilities, and what they contribute to overall maritime patrol activity has proven over time to be very, very successful.

We are lucky to be part of NATO. We lean on our brothers and sisters from a national perspective to ask them to take a look at the resources they can contribute when we are in situations with respect to some decrements in the maritime patrol area. Norway has been a great contributor on the P–8 side of the house, and we see the effectiveness of that system. They are vital resources and very much needed to improve our overall deterrence posture.

Senator KAINE. Both of those platforms, the *Virginia*-class and then the P–8 Poseidon.

General WOLTERS. Yes, Senator.

Senator KAINE. General Lyons, I want to ask you a question. On pages 5 and 6 of your written testimony, you talk about military sealift issues. Again, Senator Reed asked you a little bit about it. There was an IG [Inspector General] report about military sealift command and readiness reporting, and one of the areas that they focused on was that the readiness reporting was coming from the ship captains and they were sort of doing a self-report about readiness. These are our assets, but the operation of the ship was contracted, and there was sort of a question about whether there was

an incentive for the captains really to accurately report readiness. What is their incentive to say, hey, we are really not ready?

What are you guys doing? You talk about in TRANSCOM the current readiness measurement, but what are you doing to make sure that the reporting of readiness from the ship level up is as accurate as it can be?

General LYONS. Senator, it is a great question, and I concur with that assessment. A lot of activity has taken place and I think we have made a lot of improvements to elucidate the readiness that we see today. Part of that is the reason we are seeing such low readiness rates in the 50th and 60th percentile about our Ready Reserve Fleet readiness to generate as we discovered during our no-notice activation back in September.

What I would say is really back about 3 years ago, in 2017, the military sealift commander really started to take this very, very seriously, deep diving. He has come up with a comprehensive readiness plan. The DOD IG reflected his findings in 2017 in a 2018 report that you are referring to, and there is a lot of work still to be done.

Senator KAINE. Just to your written testimony, there is a goal of 85 percent readiness, but the current measure is at 59 percent, and vessel material, condition, and age are the primary factors, and those continue to degrade readiness. You have some additional testimony about the sealift fleet will lose 1 million to 2 million square feet of capacity each year as the ships reach the end of their useful life.

So tell the Committee a little bit in my remaining minute just about what are the plans to restore that readiness and hopefully get more near the 85 percent goal?

General LYONS. It is a significant issue. It is a top priority for TRANSCOM. We are working very, very closely with the Navy on this.

We have a fleet that is about 43 years old on average. If you compare that to the civilian industry, they are going to wash out their ships between 15 and 25, depending on the business case. It is no secret that when you retain a large fixed plant facility like one of our large sealift platforms, it becomes increasingly more expensive the older it gets.

What we would like to see very much is a little bit less in terms of service life extension, in other words, extending these ships beyond 50 to 60 years. That is not returning the investment that we thought it would. We are a very strong advocate of the acquired use strategy. You granted the authorization to do seven. We need to execute what you granted us the ability to do, and then I think we need to come back to you with a long-range plan to consistently recapitalize over the next 15 to 20 years.

Senator KAINE. Thank you very much.

Thanks, Mr. Chair.

Chairman INHOFE. Senator Cotton?

Senator COTTON. Thank you, gentlemen, for your appearance and for your service.

General Wolters, let us talk a little bit more about coronavirus and its impact in the European theater. I am reading here from a Stars and Stripes report on Sunday saying that at Vicenza, there

has been a temporary closing Monday through Wednesday of all dependents schools, activity centers, fitness centers, theaters, and chapels. Is that report accurate?

General WOLTERS. Yes, Senator.

Senator COTTON. Are there any updates from that report on Sunday in Stars and Stripes?

General WOLTERS. Those facilities remained closed and travel to the two states are still prohibited in Italy.

Senator COTTON. Do you expect that those facilities in the Vicenza community will reopen on Thursday as initially planned, or do you think that closure might have to be extended?

General WOLTERS. Senator, I would give it about a 50/50 right now about potentially extending the closure.

Senator COTTON. How many United States troops do we have at Vicenza roughly speaking?

General WOLTERS. We have got about 6,000 or 7,000.

Senator COTTON. How many of those have accompanied spouses or children?

General WOLTERS. Seventy to eighty percent.

Senator COTTON. So maybe about 4,000 to 4,500 husbands and wives and then some larger number of children probably?

General WOLTERS. Absolutely, and over 35,000 United States military members in Italy.

Senator COTTON. And they are all mostly just sitting at home right now trying to avoid the coronavirus?

General WOLTERS. Not mostly but there is a fair amount, yes, sir.

Senator COTTON. Coronavirus has been present in Germany as well. In fact, that was one of the first European nations in which it appeared. It has not appeared in the numbers yet that have exploded in Italy in the last few days.

First off, has there been any such closures at our military bases in Germany?

General WOLTERS. Not yet, Senator, but we are anticipating an increase in the number of cases reported in Germany and we are prepared to execute.

Senator COTTON. It is a troubling situation.

Let us move to another troubling situation, which you have spoken about briefly as well, Huawei, the Chinese telecom company. You state in your written testimony that 5G networks by Huawei will place intellectual property, sensitive technology, and private personal information at heightened risk of acquisition and exploitation by the Chinese Government. You further say that this ongoing initiative, coupled with China's growing interest and investment in European ports and infrastructure, complicates steady state and contingency operations.

It sounds like you consider the use of Huawei and 5G networks in Europe to be a threat to our national security. Is that correct?

General WOLTERS. It is certainly a threat to the soldiers, sailors, airmen, and marines in Europe.

Senator COTTON. My next question was, is it a threat to the troopers that you lead?

General WOLTERS. Affirm, Senator.

Senator COTTON. Unfortunately, some European nations are moving forward with Huawei technology in their networks, most notably our NATO allies in the United Kingdom and Germany. What are we to do about that and how can we guarantee the security of our troopers, as well as our NATO command and control systems?

General WOLTERS. Senator Cotton, it is vigilance, education, and going back to the basics with respect to network protection of the critical data on the technical side of the house and the personal side of the house for our soldiers, sailors, airmen, and marines, not just in the U.S. but all of our NATO forces.

Senator COTTON. Do your military counterparts understand the threat that Huawei poses?

General WOLTERS. Yes, Senator.

Senator COTTON. So the problem may be at the political leadership level. A statement, not a question.

Finally, I want to conclude on a somewhat related matter. We discussed this yesterday in our meeting. I want to bring everyone's attention to an alarming poll by the Pew Research Center among 16 NATO countries. Happily it shows that NATO's favorability rating is pretty strong, 2 to 1 in fact, 53 to 27 of the peoples of these 16 countries have a favorable impression of NATO. Not surprisingly, NATO scored pretty low in Russia.

Somewhat disappointingly though, when asked who should fight Russia if there were a conflict between a NATO ally and Russia, only 38 percent of peoples in these nations said my nation should fight Russia, whereas 50 percent said the United States should fight Russia. In some of the biggest NATO allies, it was even more alarming. In Italy, 25 percent said we will fight them. Seventy-five percent said you Americans go fight. In Germany, it was 34–63. That is a little better I guess but not too much.

General Wolters, can the Europeans expect Americans to care more about their security and their kids than they care about their security?

General WOLTERS. Senator, in my consultations at the mil-to-mil level with chiefs of defense and ministers of defense, I see a very, very eager desire and willingness to fight the Russians, and those nations that I continually communicate with show that desire, if required, to protect themselves.

Senator COTTON. I hear the same thing when I consult with European defense leaders, not surprisingly. These are men and women who have dedicated their lives to the service of their country and the defense of their country. So it is a really a political problem at the level of political leadership in Europe both in the leaders and the leadership that they show to their peoples to demonstrate that they have to be willing to fight as hard for their future and their security as they expect Americans to fight for them.

Thank you.

Chairman INHOFE. Senator Peters?

Senator PETERS. Thank you, Mr. Chairman.

Gentlemen, thank you for your testimony here today and for your service as well.

General Wolters, I would like to focus on the Baltics. In 2017, I visited Latvia and Lithuania to observe the United States Army's

Europe Operation Saber Strike exercise. The Michigan National Guard regularly participates in this exercise as Latvia's counterpart in the National Guard State Partnership Program, as you know.

Similarly, Latvian forces participate in the Michigan National Guard's annual Northern Strike exercise, which is a joint multinational exercise hosted at Camp Grayling in Michigan.

The Latvian military particularly benefits from this training in Michigan because it offers an opportunity for them to certify as JTACs [Joint Terminal Attack Controller], and as a result of this program, Latvia is one of only eight allied countries that are certified to call in United States close air support in combat. Part of the reason the Michigan National Guard and the Latvian military have a strong relationship is because the Latvian military is built around integrating reserve and their regular forces as a major component of their national defense strategy.

So my question to you, sir, is, could you discuss how EUCOM tailors its training and partner strategies to support the Baltic States' reliance on these reserve forces and specifically the State partnership with our National Guard and how integral that is to all of this?

General WOLTERS. Senator, I can.

First of all, for the Baltics writ large the insertion of the four battalion-sized battle groups into Estonia, Latvia, Lithuania, and Poland in the summer of 2016 has dramatically improved our all-domain security awareness. In particular, as you well know, with the participation of your Michigan Air National Guardsmen who have been very, very integral in the air-land integration piece, the lead nation in Latvia at that battalion-sized battle group happens to be Canada. We have many force elements that are intermixed amongst the other nations.

The overall improvement day in and day out of those battle groups to be able to see the battle space and defend their sovereign territory is palpable, and they are doing so in all domains and all functions. Our next step is to make sure that those battalion-sized battle groups that represent generating peace in the Baltics are aware of all the activities in the southeastern sector of Europe, as well as the western portion of Europe. So we are very, very pleased with the continued transparency and alignment and very, very pleased with the air-land integration that we have seen improving in Latvia for the last 2 years.

Senator PETERS. Well, thank you.

My next question is related to the development of the next generation combat vehicle which is now taking place in Michigan with a cross-functional team. The first platform was intended to replace the Bradley fighting vehicle that the Army has just recently restarted the program. Much of the debate has basically focused on the tradeoff between armor and mobility and specifically how readily the vehicle can be positioned in a crisis zone.

However, in the European theater, the size and weight of the vehicle could be equally problematic for its maneuverability through European terrain and civilian infrastructure, particularly the bridges there.

General Wolters, you seemed to address this issue in your written statement where you mentioned the EU, in consultation with NATO, is investing 6.5 billion euros in the improvement of civilian and military dual use. However, I am concerned this approach may not address the core issue that I just mentioned.

But my question to you is, what is more realistic? Should the next generation of combat vehicles be built to accommodate European infrastructure limits, particularly in Poland and the Baltics, or is the solution to reinforce transportation infrastructure throughout eastern Europe?

General WOLTERS. Senator, I hate to give you this answer, but I think it is a little bit of both, and I know that General McConville leading our United States Army has his experts taking a peak at that. I know that he steps up even one more level. It gets into a discussion about armor versus mobility, and I think from a global perspective, there are some tradeoffs and from a regional perspective, there are some tradeoffs. It all has to do with the demonstrated capability of the nations in Europe, as well as other regions. I know that we are taking a very, very serious look at that.

Senator PETERS. My follow-up question is, how do our western European allies, who also produce heavy military equipment, how do they accommodate limitations in civilian infrastructure particularly in Poland and the Baltics?

General WOLTERS. A greater degree of education on the challenges that we face from a bridging perspective in eastern Europe versus western Europe. It was an issue that all of Europe was very, very aware of in the mid-1980s, and they are getting themselves reacquainted with it today and they understand the imperative of making sure that we have bridging programs in the regions in the northeast and the southeast of Europe to ensure that we can shoot, move, and communicate fast.

Senator PETERS. Thank you so much. I appreciate it.

Chairman INHOFE. Senator Ernst?

Senator ERNST. Thank you, Mr. Chair.

Gentlemen, thank you very much.

General Lyons, we have already discussed a little bit of the KC–46's. So I will not dive into that. But just for note, our Iowa Air National Guard does have the 185th air refueling wing that operates the KC–135's. Certainly we want to make sure that this incredible unit is able to sustain operations ongoing, so it is something we will definitely want to discuss with the Air Force during their posture review.

But, General Wolters, I am going to pick up where my colleague, Senator Peters, left off. He was talking about the State Partnership Program that his Michigan National Guard has with those Baltic State members while Iowa, our National Guard, has a partnership with Kosovo. I am just always very excited about that and have relationships that I have carried on for about the decade of time that the Iowa Army National Guard has been involved with those partners.

As the only force that both the Kosovars and Serbians trust, how can KFOR [Kosovo Force] best posture itself to ensure that there is enduring stability between the two sides, Kosovo and Serbia?

General WOLTERS. Thanks, Senator, and I cannot thank you enough for the contributions of your State to Kosovo.

Senator ERNST. Thank you.

General WOLTERS. As we sit today, KFOR is very, very active and engaged more so than they were 1 year ago as a result of the continued involvement of United States operations activities and investments in Kosovo and Serbia, as well as the NATO investments of operations activities.

We typically rotate in NATO military training teams, but when they land at those locations, to be able to have a soft landing with the force element from your National Guard State Partnership Program affords us the opportunity to reintegrate at a much faster pace. We are very, very concerned about the security disposition in the Balkans. We are very, very pleased with the efforts of KFOR, and KFOR is far more capable today as a result of learning from the experiences of the State Partnership Program like yours as they reveal themselves in Kosovo.

Senator ERNST. Great. Thank you, and obviously, a number of us here do support those State Partnership Programs.

What is NATO's role for peacekeeping as the KSF [Kosovo Security Force] transitions into a full army? Will it be able to guarantee Kosovo's territorial integrity? Do you see that in their future?

General WOLTERS. That is certainly the goal, Senator, and again, it is by, with, and through in a very, very tough neighborhood. As you probably know better than I, there are some very, very serious tendencies that exist between Serbia and Kosovo that we are seeing improve over the course of the last several weeks. Ambassador Grenell has been very, very aggressive on getting those security apparati to communicate with each other. So we hope for continued good news in that area with respect to the Kosovo-Serbia relationship with respect to taxation.

Senator ERNST. Absolutely, and I think that there is undue pressure obviously coming from Russia in that region as well.

General Lyons, if we could talk a little bit about autonomous vehicles and how that impacts logistics and delivery. I am really excited. I chair the Subcommittee on Emerging Threats and Capabilities, and we have talked extensively about autonomous systems and how that can help our operators. Like I had wonderful truck drivers that were out on the roads and how it would reduce their risk.

Can you describe a little bit how you are leveraging and integrating these emerging technologies into some of the modernization efforts?

General LYONS. Senator, I agree with you. There is enormous potential here for autonomous, and it can be a combination of manned/unmanned. Each of the services are working distinct and separate material development kinds of initiatives. You mentioned the one in the Army, which was a bit of a combination teaming. I think there is enormous potential to expand what we are doing in the air domain and then even potentially space domain in the future.

Senator ERNST. Absolutely, and what is the best way to speed delivery of those types of systems into operations today? We oftentimes see large defense contractors—they are very slow moving,

but this is a great emerging technology. How can we deliver that quicker?

General LYONS. Ma'am, it is a great question. As indicated, each of the services are working these in the programmatic sense. As a combatant commander, I have the requirements out there, but the services present capability and so I cannot speak specifically to the timelines that they are working. But it is a great question.

Senator ERNST. If you come up with the answer to that, let us know because I think we really need to be much more nimble on delivering emerging technologies to our men and women in uniform.

General LYONS. I agree.

Senator ERNST. Thank you, gentlemen, very much.

Chairman INHOFE. Senator Jones?

Senator JONES. Thank you, Mr. Chairman.

Thank you both for your service. We really appreciate you being here today.

General Wolters, we have taken the first steps to begin the Defender-Europe 20 military exercise, the largest of its kind in 25 years. I think there are 18 countries participating across 10 countries.

What are the biggest challenges you see in executing the Defender 20 program, and what are the key takeaways you hope to see coming out of the exercise?

General WOLTERS. Senator, on the logistics side of the house, the environment in Europe has to be mature enough to be able to absorb 20,000 soldiers and get those soldiers to the right prepositioned locations to be able to grab the appropriate gear that they are supposed to get and get to their foxhole and be able to execute. What we want to do is count every second that it takes to get the soldier from the first point of entry all the way to his or her foxhole to be successful to adequately defend.

We anticipate that there will be some snags. I want to applaud this Committee on the fact that 2 years ago we could not exercise Defender-Europe 20. We were not mature enough with respect to the prepositioned stockpiles to have a soldier show up at location X and be able to grab resources. Today we can do that. We know the fitness of the resources, and now we will be able to examine their speed with which they can get to the foxhole and be able to execute.

Senator JONES. Is Turkey participating?

General WOLTERS. Senator, they are as observers and they are in certain areas with respect to activity on the periphery of Georgia.

Senator JONES. Just to follow up real quick, what, if any, response, reaction are you seeing from Russia, or do you expect from the Russians or any of our other adversaries?

General WOLTERS. Senator, we have seen a fair amount of response from Russia. They are not overly pleased with Defender-Europe 20. We are concerned mostly about the readiness of our forces, and we are doing all that in accordance with international law in sovereign space, in sovereign seas, in sovereign land.

Senator JONES. Thank you.

General Lyons, we have got a air refueling wing in Alabama too, the 117th, winner of an Omaha trophy this year. In your remarks to the Atlantic Council, you were quoted as saying across TRANSCOM, the aerial refueling force element is the most stressed and probably the one that is pushing the red line or exceeding the red line.

Now, were you speaking strictly about the number available aircraft there or also about the demands or the need for more crew?

General LYONS. Senator, it is a combination of both. I spoke earlier about the iron, the tails, that we have to retain, legacy tails, during the conversion before the KC–46 becomes available to the joint force. But I would also comment that—and this is true across all components, Reserve and the Guard—the high tempo of our airmen that are running these missions. Particularly in the Guard, I would say we do come very, very close. In some cases we penetrate the mob to dwell in that particular force element, and I would highlight, Senator, that the contributions that the Air Force Reserve makes in day-to-day competition is absolutely extraordinary between volunteerism—involunteerism that still exists in the CENTCOM AOR [area of responsibility] and then long-term MPA [Mentor-Protégé Agreement] pilots who we have flying every day.

Senator JONES. I take it you could use more crew? Is that fair?

General LYONS. Senator, crew is a friction point. There is no question about that.

Senator JONES. What can we do to try to get more crew to the air refueling in the Guard or wherever it might be?

General LYONS. Well, Senator, we are doing that today. The Air Force is working some of this as a combination of what the KC–46 will bring. Some of this is a function of what we must retain. Then there is obviously a certain level of friction between what systems, how many systems you can crew and then the associated output to the joint force.

Senator JONES. Thank you.

I think that is all I have, Mr. Chairman. I yield the remainder.

Chairman INHOFE. Senator Tillis?

Senator TILLIS. Thank you, Mr. Chairman.

Gentlemen, thank you for your years of service.

General Lyons, I want to start with you on the HHG [household goods] program. It is not in your lanes, but I have got a little history with military housing and trying to fix that problem and improve accountability and really put the family at the tip of the spear in terms of our focus. So I like the idea that you are moving forward with the program. It should reduce costs and improve service. That is really what we set out to do with military housing. We did it for a while.

So with this program, can you tell me a little bit about how it is going to execute, what your expectations are for performance in the upcoming PCS [permanent change of station] season? And more importantly, I would like to know the mechanics. How does that family member who is coordinating the move—the spouse may be deployed somewhere—to what extent are they going to have power over really assessing the completeness and the satisfaction of the move?

General LYONS. Senator, all great questions. You brought up the housing issue, and part of what got us into the housing issue was a lack of clear accountability with the private sector and the appropriate governance structure to manage that large contract. That is exactly what is driving us here in the household goods industry to restructure our relationship so that we do have defined levels of accountability, key performance parameters if you would, and that is the design of the global household goods contract. It is not designed to put any providers out of business. It is designed to gain accountability, clarify responsibility inside the Department, and then through a longer-range relationship with industry, incentivize the growth of capacity to meet the peak season. I think for family members, we owe them that.

Now, we will not in the 2020 peak season see this come to fruition. We intend to award in 2020 and prepare for the 2021, and then there will be a rather long transition to grow this capacity over time. But key will be accountability and transparency for family members.

Senator TILLIS. I think that is important because we do a lot of housing town halls down at Fort Bragg and Camp Lejeune, and I have heard some rumblings about a less than satisfactory experience with the status quo. So I think you are right. I appreciate you taking the lead and trying to get it right and have a consistent experience across the globe. So I appreciate the work on that.

I am interested. We will do it maybe with a meeting in my office if I could get with some of the people who are working on the contracting. I would like to see how they are going after key performance indicators, customer satisfaction, those sort of things built into it. Now we are trying to retrofit that into the housing program. It looks like you are going to be ahead of it. So I thank you for your work there.

General Wolters, tell me a little bit about how well your area of responsibility, your partners are closing the gap on their cyber capabilities, how well we are actually coordinating, and your assessment of our—if you take a look at Russia, they are all over the place. Anytime I have traveled to that part of the world, you are talking about Russia, information campaigns, and their malign activities. Give me some hope on how we are either creating a gap or filling holes that we have right now.

General WOLTERS. Senator, we are improving our strategic transparency and alignment in the cyber domain. I would say that over the course of the last 2 years, the NATO nations have done a much better job of understanding the challenges that they face on the defensive side of the house from a hygiene perspective. Once they have got their back yard in order, now they are in a position to understand where they start with respect to network protection. That truly has come about as a result of our USCYBERCOM's willingness to lead from the front.

Senator TILLIS. As you move into that answer, I would also like for you to talk about Huawei, ZTE, and whether or not we have gotten to a good place where clearly they are going to allow that infrastructure to be present. But in terms of critical infrastructure, are we getting to a good place?

General WOLTERS. Senator, that is a great point and that is exactly where I was headed. The hygiene piece, the defensive cyber piece has to be applied with respect to what is about to become an issue in Europe with respect to proliferation of 5G activity in Huawei. Network protection is going to be job one. So we are right back to the basics. As you well know from your time with General Nakasone, he is keen on that, and we have seen a marked improvement in the manning for defensive cyber ops on the United States side in Europe, and we have seen an increase in manning on the defensive cyber ops side of the house for the NATO nations in Europe.

Senator TILLIS. Well, thank you, and thank you both. I have got a lot of questions. But, General Lyons, we will be in touch so I can get a little bit more insight into the direction of HHG. Thank you both for your time.

General LYONS. Yes, sir. Happy to do so.

Chairman INHOFE. Senator King?

Senator KING. Thank you, Mr. Chairman.

General Lyons, we have touched several times on the transition of the KC–46. I want to put a finer point on it. In your testimony, you say this is your number one shortfall, and you go on to say it will create a critical and deepening gap in taskable aerial refueling aircraft and air crews for the next 5 to 7 years. You do a very good job of outlining the problem, but then at the end of your prepared remarks, you say we recommend reevaluating aerial refueling force structure plans annually. Frankly, that does not reassure me.

I want to know what is the plan. You have identified a serious problem here. We cannot project force if we cannot refuel those airplanes, and you have identified a 5 to 7-year—you characterize it as a deepening gap. What do we do? Perhaps you do not need to give me a full answer here, but for the record, I would like to see an action plan not just reevaluation.

General LYONS. Senator, we will be happy to work with the Air Force and come back to you on that with a joint plan.

In the near term, we had agreed with the Air Force to retain 28 legacy aircraft to mitigate the conversion for the KC–46. The KC–46, as we receive that aircraft, as the Air Force receives that aircraft, will take some time to work through the technical, the Cat-1 deficiencies, as well as convert crews, and so you can appreciate there is going to be tension between crews. In some scenarios we are tail limited; in some scenarios we are crew limited. It is a bit of a combination. It is a very complex program for the Air Force to work. They are pushing as hard as they can with Boeing.

Senator KING. If you could give to the Committee a detailed analysis of what you identify as the gap, how many tails, how many crews, and what the solution is because if we have a crisis and need that capacity, saying well, you know, it was a complicated problem is not going to cut it.

General LYONS. Senator, I agree, and the issue is not when there is conflict. Actually it is in day-to-day competition. So just to be clear, in today's day-to-day competition, that is where we are taking the reduction.

Senator KING. We are stressed right now.

General LYONS. We are stressed today and that is where the 10 and the 13 that are in the current fiscal year 2021 reduction that we are working with the Air Force and the Department to bring those back.

Senator KING. I look forward to working with you on that.

General LYONS. Yes, sir.

[The information referred to follows:]

General LYONS. USTRANSCOM continues to work with the United States Air Force (USAF) to retain sufficient aerial refueling capacity to support daily demands and crisis response to mitigate delays in KC–46 operational capability. Since my testimony, two significant events have occurred which have solidified the Department's way forward for the air refueling mission area. First, in early April Boeing and the USAF agreed on a fix to the most serious KC–46 deficiency for the Remote Visual System (RVS). With a known technical solution in hand, the USAF now believes they will deliver an RVS 2.0 solution to retrofit some KC–46 aircraft in fiscal year 2023 and have a fully capable KC–46 in production by fiscal year 2024. In light of this outcome, in March and April USTRANSCOM worked closely with the USAF to develop an acceptable reduction in KC 10 capacity while sustaining KC–135 aircraft that I believe creates an acceptable action plan which I will describe more fully below. USTRANSCOM's ultimate objective is to balance retention of usable KC–135/KC–10 air refueling capacity while simultaneously building the foundation to rapidly assimilate fully capable KC–46s into the air refueling fleet. Over the last several years, the USAF identified a measured pace of KC–10 retirements, as the KC–46 program progressed, provides a high-benefit cost savings given budget constraints. I support modest reductions in the KC–10 fleet which means accepting some near-term risk in air refueling capacity. I am now more willing to accept these measured reductions in April knowing a KC–46 RVS 2.0 solution is identified and we're on a path to producing fully manned and operationally capable KC–46s. USTRANSCOM agrees with the USAF on a force structure profile that includes reductions in KC–10 aircraft. The agreed upon Primary Mission Aircraft Inventory profile; consists of not less than 50 KC–10s in fiscal year 2021, not less than 38 KC–10s in fiscal year 2022, and not less than 26 KC–10s in fiscal year 2023 with full retirement of the KC–10 fleet in fiscal year 2024. Any further delays in fielding operationally capable KC 46 aircraft would cause USTRANSCOM to reassess this profile. The USAF has committed to retaining current KC–135 Total Aircraft Inventory of approximately 393 aircraft for fiscal year 2021 to fiscal year 2023 with adequate aircrews to mitigate the risk to daily competition missions. KC–135 reductions in fiscal year 2024 and beyond are conceptually on a one-for-one basis after we reach the current requirement of 479 capable air refueling aircraft. USTRANSCOM continues to support USAF efforts to recapitalize the air refueling fleet which will consist of 300 KC–135s in fiscal year 2029, at an average age of 67-years, and the full complement of 179 KC–46s. These adjusted retirement profiles assume funding is made available by Congress or the Department. We are working with the Department's senior leaders to realize this air refueling profile that accepts some modest risk in the near-term and delivers a more modern, capable air refueling fleet in the long-term.

Senator KING. General Wolters, a quick question. Do we have sufficient visibility of Russian submarines in the Atlantic? Do we know where they are?

General WOLTERS. We do but not for 100 percent of the time.

Senator KING. I do not want whatever the missing percent is to be off the coast of Maine.

General WOLTERS. I agree, Senator.

Senator KING. Or New York, not to be too parochial about it.

[Laughter.]

Senator KING. I think it is unlikely—I hope I am right—that Russian tanks are going to roll across the border into the Baltics. But what is our thinking and strategic thinking about a hybrid kind of activity involving Russian language, a kind of Crimea model? Is that a concern, and do we have a strategic response?

General WOLTERS. It is very much a concern, Senator, and it has to do with the posture of our forces as we sit today in competition and attempt to effectively deter. We are improving in our ability to do so, and we have to do so to a point to where we compel any potential enemy of us to not take those first steps against us. NATO agreed in the NATO military strategy to also recognize a whole-of-government, whole-of-nation approach, and that will allow us to dramatically improve our posture so that we can better see the battle space from an indications and warnings standpoint and better be able to more proactively deploy to defend.

Senator KING. And be prepared for a different kind, for not a traditional tanks rolling over the border invasion.

General WOLTERS. Absolutely, Senator.

Senator KING. I think we should—I am sure you are—a lot of study on Crimea and how that played out and what the response could have been or might have been.

General WOLTERS. Yes, Senator.

Senator KING. Final question. The attacks on the Saudi tanker field and also the Iranian missile in Iraq after Soleimani's death to me raise concerns about our ability to defend against—I do not know what you want to call them—cruise missiles, low-level missiles, intermediate range, and I believe the Iranian missile was an ICBM. What is our capability to defend against those kinds of attacks? Because it did not work in Iraq and it did not work in Saudi Arabia.

General WOLTERS. Senator, it is improving, but it has to get better. We have a plan that prefers to integrated air missile defense that comprehensively takes into account what happens at long ranges and long altitudes and short ranges and lower altitudes. It all has to be nested together from an indications and warnings standpoint and command and control standpoint.

Senator KING. So you would agree that this is a significant gap in our defense that we really need to get to work on in a hurry.

General WOLTERS. It is a shortfall, Senator, and we need to continue to work on it.

Senator KING. Thank you.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Scott?

Senator SCOTT. Thank you, Mr. Chairman.

Thank you for your service.

With our NATO members that are now picking up the—you know, spending the money they were supposed to spend in the past, does it give us any opportunity to reduce our funding, or does it give us any opportunity to reduce our troop deployment in Europe?

General WOLTERS. Senator, it could in the future.

Senator SCOTT. Does it concern you that countries like Germany still do not want to pay their fair share, and does it impact our ability to defend? And does it give us a need to start thinking about where we should have troops and where we should not have troops? And are we thinking about should we be in Poland more than we should be in Germany?

General WOLTERS. Senator, I believe all those are a concern, and in my mil-to-mil consultations with my German counterparts, they are just as concerned about meeting the 2 percent as we are.

Senator SCOTT. But there is no action that we need to be taking?

General WOLTERS. I think the vigilance that we continue to show with respect to requirements collocated with defense spending needs to continue. Today what we have observed between fiscal year 2016 and 2020 is an actual increase across NATO of an additional $130 billion of funds for defense. That is positive and we need to continue on that track.

Senator SCOTT. With Turkey buying the S–400 and it seems like cozying up to Moscow, does it impact your ability to rely on them as a partner?

General WOLTERS. Senator, it has not to this point. Turkey remains a very reliable NATO ally.

Senator SCOTT. And with Huawei, have you had to make changes on the types of information you are willing to share as a result of knowing that these countries are going to continue to use Huawei in 5G but also even in their existing infrastructure?

General WOLTERS. Senator, we have not at this point because of the current posture with respect to 5G and Huawei and in particular UK. But my guess would be in the near future, we have to be more vigilant with respect to network protection and Huawei and 5G.

Senator SCOTT. The investment that Communist China is making in Europe and all around the world—is that impacting our ability to be—not just the United States but other members to be able to defend against a Russian invasion but even what China is doing?

General WOLTERS. Senator, it is not an impact today, but it could be in the future if we continue to see that economic equity increase with respect to seaports on behalf of China in Europe.

Senator SCOTT. For them, it is mostly the seaports that is impacting in Europe?

General WOLTERS. Today that is the biggest issue, Senator.

Senator SCOTT. How about the supply chain? How dependent the world is on China as a member of the supply chain—does that cause you any concern?

General WOLTERS. It does cause a concern, Senator. I have not seen those reflections yet in Europe, but I anticipate that we could.

Senator SCOTT. Thank you, Mr. Chairman.

Chairman INHOFE. Senator Sullivan?

Senator SULLIVAN. Thank you, Mr. Chairman.

Gentlemen, I want to thank you for your service and your testimony.

General Lyons, I think you mentioned at the outset your combatant command does so much great work. I think Alaska we have more understanding of that than most places and how you do it professionally, quietly, but critical to the whole military.

I also thought the anecdote that you mention in your testimony about saving the life of one soldier was very powerful. So please tell the whole TRANSCOM civilian and military members that we respect and appreciate all that you are doing.

I am glad you mentioned the personal property program in your opening statement. I am going to have a number of questions for the record that if you and your team can get back to me on relatively soon, I would appreciate that a lot.

You know, you talk about also the most stressed capability and number one readiness concern is on the aerial refueling fleet and the tankers. So I mentioned this a number of times in this Committee. Billy Mitchell, when he was testifying in front of this Committee in the 1930s, the father of the United States Air Force, mentioned that Alaska was the most strategic place in the world because of our location to Asia, to Europe, to other places.

Secretary Esper, when he was testifying here several months ago, said that we are going to have over fifth generation fighters located in Alaska starting in April with the F–35's coming to Eielson Air Force Base to collocate KC–46's with 100 fifth generation fighters. The Secretary of Defense said that would provide the warning to our adversaries, particularly China and Russia, that we have extreme strategic reach.

Right now, the Air Force is looking at their OCONUS decision on where to put the OCONUS KC–46 fleet. Almost everything is focused in INDOPACOM [Indo-Pacific Command] with the exception of Alaska which, as you know, could be INDOPACOM, EUCOM, any com because where we are on the top of the world.

Can you give me your sense on that? To me, this seems like a no-brainer. But I think it would help you with your most stressed capability and number one readiness concern if you put tankers in a place that can service EUCOM, PACOM, STRATCOM, NORTHCOM versus place them all in Guam, which is kind of conventional wisdom but in my view does not make any sense.

General LYONS. Senator, thanks. There is no question about the strategic significance and location of the State called Alaska. As you and I have discussed before, the Air Force does have a basing methodology and a basing plan for the KC–46 as it comes online. I will defer to them on those particular discussions.

Senator SULLIVAN. I am not telling you to make—but do you have a view on that? You call it the most stressed capability, aerial refueling. Does it help to have capability in a place that can help TRANSCOM reach other COCOMs other than just INDOPACOM?

General LYONS. Senator, I would have to look at the analytics.

Senator SULLIVAN. Well, I think the answer is yes. Maybe you can get back to me on that. It seems to me pretty damned clear.

General LYONS. Senator, I will come back to you.

Senator SULLIVAN. We want to help you with your most stressed capability and number one readiness concern. I think there is a way to do that, which is to make this decision, which to me seems like a no-brainer.

General Wolters, I appreciated your reference on Arctic issues in your testimony. Even though that is not necessarily Alaska, we are kind of in the seams. Right? We got INDOPACOM forces. We got the threat from Russia. We got STRATCOM. We got TRANSCOM, NORTHCOM, everybody.

Let me just mention, this Committee has been very focused on Arctic issues. The Chairman mentions great power competition. There has been an important Arctic focus. The problem is the Pen-

tagon has been pretty slow to address some of these challenges and recognize it.

We have two icebreakers right now. One is broken. That is the American capability. Russia has 54, and this article for the record, they just recently announced they have nuclear icebreakers and a Russian shipyard launches a cruise missile-capable icebreaker.

Can you talk to the challenges of the Arctic with regard to Russia and how you are addressing it?

General WOLTERS. Senator, it is of great concern. As we crafted the NATO military strategy, its title is "Comprehensive Defense and Shared Response." One of the realizations was the fact that we need to be as focused in the Arctic as we are in the Baltics, as we are in the Black Sea, as we are in the Mediterranean, as we are in the central portion of the Atlantic. The Arctic needs to ensure that it gets the appropriate scrutiny and the appropriate resourcing.

We are excited about the fact of NORTHCOM serving as the executive agent for capability development in the Arctic. We are also pleased that in the summer of 2019, DOD delivered their Arctic strategy. I know you drove that, Senator, and we appreciate that.

It is vital. We see a lot of activity on behalf of Russia in the Arctic, and we also see activity on behalf of China in the Arctic. We think most of that has to do with money and commercial fishing activity.

So it is of great concern and security exists on the periphery in Europe, and the Arctic is a big reason why we have to make sure that we maintain our vigilance.

Senator SULLIVAN. Thank you.

Thank you, Mr. Chairman, and generals, both of you, thanks again for your service.

Chairman INHOFE. Senator Shaheen?

Senator SHAHEEN. Thank you, Mr. Chairman.

Thank you to both you, General Wolters, and you, General Lyons, for your service and for being here this morning.

I want to begin, General Wolters, with the continuation of the discussion we had yesterday. I appreciated your taking time to meet with me. But earlier this month, the President informed Congress that he was going to divert another $3.8 billion from the Pentagon toward the border wall. This is on top of the $3.6 billion that he took from military construction (MILCON) projects last year. These reprogrammings would eliminate, among other things, the military weapon systems. I know Senator Kaine referred to one of those. But that includes eight MQ–9 Reapers, which are an ISR [intelligence, surveillance, and reconnaissance] asset, and my recollection of previous conversations is that ISR assets are at a premium within the European theater and other areas.

So can you discuss how the elimination of these weapon systems and MILCON projects are going to affect your campaign momentum?

General WOLTERS. I would like to address the fact that we had 44 projects that were MILCON-related that were deferred because we could not get those projects on contract by September of 2019, and the total value of the 44 projects was approximately $1.3 billion, and they came in two buckets. One was a set of projects—25—

that were European Deterrence Initiative MILCON projects. The other projects were baseline MILCON, 19. The EDI MILCON was about $771 million, and the MILCON base was about $550 million.

When you take a look at all 44 of those deferred projects, which we hope will reappear one day, what you see is three major areas of reduction of campaign momentum. The first has to do with advanced airfield infrastructure on some of the NATO airfields in the farther eastern side of Europe. The second has to do with the infrastructure that supports prepositioned stockpiles for fuel and for ammunition. The final area of impact for campaign momentum is the modernization of infrastructure that supports a couple of military headquarters and schools. All those are important to campaign momentum. It slows the campaign momentum.

Despite all that, Senator, we still maintain positive campaign momentum in the critical areas of indications and warnings, as you alluded to ISR, command and control and mission command. It just slows down the progress.

Senator SHAHEEN. As you read the National Defense Strategy, what is a bigger threat to our national security? Is it a threat from Russia and China and the great power competition? Or is it a threat from immigrants coming across our southern border?

General WOLTERS. Senator, both are threats. As the Commander of USEUCOM, I will tell you that I am most concerned about Russia.

Senator SHAHEEN. That was a very diplomatic answer, and thank you. I am sorry. I should not have put you in that position. But I think it is an important point to make, that the threat that you are dealing with is one that has significant implications for our future when we look at Russian aggression and its potential to impact the United States.

I want to go back, General Lyons. I know there have been a number of questions around the KC–46 and the delays in the aircraft and what that challenge means for us, and it is an issue for our National Guard, the 157th air refueling wing, which lost its last KC–135 because we thought the 46 aircraft would be arriving this year, and obviously, due to problems, it has been delayed.

But last month, General David L. Goldfein sent a letter to Boeing asking them to review the remote vision system, which is probably the most prominent problem at this point, to give a design review by March 2020 and a flight demonstration by 2020.

Can you tell us whether we have heard from Boeing at this point and what they have said with respect to that review of the remote vision system?

General LYONS. Senator, I really appreciate General Goldfein's focus on this particular area, and I have relayed that to him as well.

I know there have been many contacts between Boeing and the Air Force, and I do not want to get into the programmatics. I know there are some design issues that they are working through. I do not have a complete answer yet, and I will defer to the Air Force on the particulars of the program.

Senator SHAHEEN. Well, can I ask, do we expect an answer from Boeing by the end of March?

General LYONS. Yes, ma'am. I believe General Goldfein expects an answer. He said that explicitly and I believe that will come to fruition.

Senator SHAHEEN. Okay, thank you.

General Wolters, I want to go back to NATO because with Senator Tillis, he and I chair the Senate NATO Observer Group, which is an effort to try and make sure that the Senate is aware of what is happening with NATO and what we need to do.

I wonder if you could give us an update on the new Cyber Operations Center that NATO is planning to be fully functional by 2023.

General WOLTERS. We are very pleased, Senator. As you know, it all originated in Estonia, and it started with the involvement of the United States and the declaration by the United States CYBERCOM to have one United States single military commander responsible in the military for the domain of cyber, and the Europeans have embraced that. We are excited about the future, and NATO headquarters on the political side is also very excited.

Senator SHAHEEN. I am out of time, but I will do a follow-up question for the record on this.

Chairman INHOFE. Senator Hawley?

Senator HAWLEY. General Wolters, let us talk a little bit, if we could, about the European Deterrence Initiative. I assume that you would characterize this as a success. Is that fair to say?

General WOLTERS. Yes, Senator, I would.

Senator HAWLEY. Can you give us some specific examples of things that EUCOM would not have been able to do without EDI?

General WOLTERS. Senator, the first largest example is we had started Defender-Europe 20, an exercise that brings over a division-sized force. We could not do that a year ago. We could not do it 2 years ago. We can do this exercise as a result of the benefit of EDI funds.

Senator HAWLEY. Why would EUCOM have struggled to do some of these things without EDI? What specific obstacles has EDI helped you overcome in your judgment?

General WOLTERS. First of all, it has funded the rotational brigade combat teams that go to Poland, and that teaches all of our soldiers, sailors, airmen, and marines how to lift and shift larger quantities of forces across the Atlantic and do so without any harm. That in itself is very important.

We have also through EDI been able to fund our Army prepositioned stockpiles, our emergency contingency operation sets for the Air Force, and our deployable airbase systems for the Air Force.

We have also been able to dramatically improve the airfield infrastructure and the reception infrastructure in the eastern part of Europe to where it is equipped today to safely receive those resources and effectively get those resources where they need to go for our soldiers and sailors and airmen and coast guardsmen and marines to be effective.

Senator HAWLEY. That is an impressive record of success, and it is one of the reasons I think we need something similar in other theaters, INDOPACOM in particular as I have long advocated for.

General, staying with you, Whiteman Air Force Base. My home State of Missouri, of course, is the proud home of B–2 and the

proud future home of the B–21. Can you just speak to the role that you see the B–2 and one day the B–21 playing in deterring Russia from using nuclear weapons as part of any attempted fait accompli in the Baltics?

General WOLTERS. Senator, those airframes are part of the critical triad, and I am firmly convinced that the nuclear deterrence umbrella that sits over Europe is part of the great success that we have had for the last 7 decades in NATO to be able to generate peace. I am excited about the future of the B–21 because I think it will do more of the same with even a greater impact.

Senator HAWLEY. Very good.

Let me shift to China for a moment, if I could. In your written testimony, General Wolters, you said that China's efforts to build 5G networks in Europe, coupled with its growing interest and investment in European ports and infrastructure, complicate steady state and contingency operations.

Can you just say more about that? How specifically do these Chinese activities complicate steady state and contingency operations?

General WOLTERS. The equities that they have on the shipping capacity inside and outside of Europe is very alarming, and when you control the ability to take in and regulate resources, you have a large impact on what actually exists on the continent with respect to its ability to effectively generate peace and security. That is the concern.

Senator HAWLEY. How do our European allies respond when you raise these concerns with them, as I am sure you do?

General WOLTERS. With vigilance. In some cases they are surprised to the degree of equities that China has with respect to seaports, but in most cases, very concerned and vigilance increases once we get past the education stage.

Senator HAWLEY. You also wrote that you are seeing encouraging signs—those are your words—from European nations as they become increasingly aware of the strings attached to Chinese capital investment. Can you give us a sense of what those encouraging signs are?

General WOLTERS. Several nations not willing to accept 5G Huawei, and we have had reports of that in other nations being a lot more stingy and scratchy with respect to their willingness to engage in deliberations on port equities.

Senator HAWLEY. Let me ask you for a second about our allies' contribution to NATO, which is something that has come up, rightly so, a number of times already this morning.

I think that the progress towards the 2 percent mark is very important but only just a first step because the division of labor within NATO has to fundamentally change, and I think as this Committee has been saying now for some time. What is your assessment about what would need to happen for our European allies to get to the point where they are able to assume primary responsibility for their security in your theater?

General WOLTERS. Senator, I think we need to continue on the current campaign that we are on. As you know, from 2016 to 2020, in the cash portion of contributions for burden sharing, we have had a net increase of $130 billion. There is also the examination of contributions in capabilities, and in NATO we have been very,

very vigilant with respect to our focus on improving our readiness, the ability of force elements to be more resilient, more responsive, and more lethal. That is all part of the equation with respect to European contributions to adequately defend, and we are improving.

Senator HAWLEY. Thank you very much, General. I look forward to seeing you both this afternoon.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Duckworth?

Senator DUCKWORTH. Thank you, Mr. Chairman.

General Lyons, thank you for making the time to sit down with me earlier this month to talk about TRANSCOM and logistics more broadly.

I want to touch again on the state of the sealift fleet in the U.S., and I know that Ranking Member Reed asked about the state of sealift in his question line. But I sort of want to go a little further into this. You said that our current readiness is lower than where we need to be, but you are working to recapitalize on sealift capability when you answered Ranking Member Reed.

How do you ensure that this plan continues to be prioritized with the Navy and the DOD leadership when they are always balancing other higher cost programs and initiatives? I feel like this is sort of the plain sister and it needs a little bit more attention. How do you make sure that that priority is also placed on your particular recapitalization plan?

General LYONS. Senator, first let me just publicly thank you for your leadership and leading our logistics efforts across the Department. I appreciate your particular interest here.

I think this is a hard decision for the Navy. They have a lot of competing requirements, and Sealift is one of many.

My own view on this, if you go back to the original recapitalization of sealift back when John Lehman was Secretary of the Navy, we had something which we have today, but we do not use, the National Defense Sealift Fund. I think the way that we are going to move in a positive direction is we are going to have to have an appropriation that feeds the National Defense Sealift Fund. It allows us the flexibility to capitalize on opportunities in the open market to continue the acquired use strategy, and I think that is what we need to do over a long period of time, over the next 15-plus years where we have 46 vessels aging out.

Senator DUCKWORTH. Thank you.

Another category of concern that I have in logistics is based around fuel. We have talked in the past about solutions for alleviating stress on the Air Force's tanker fleet, but this time I would like to focus on bulk fuel capacity for distribution and storage as an example.

How would you work with the services' logistics arms to properly identify each of their needs and how to meet those needs as they come around and reframe to face near-peer competitors under the NDS? Because I feel like there is not a lot of really good communications between the services on what those bulk fuel needs and capacities. What do you need to do to push it forward into theater?

General LYONS. Yes, ma'am. I mean, you are alluding to something that is very important across the department and fuel is liq-

uid gold essentially. We require it for everything that we do in every single domain. We have got a study directed by Congress that we will complete this year in terms of assessing our ability to access maritime tankers, for example, in an end-to-end value chain, to look also at the nodes. The way we look at it today in terms of global posture is very large, fixed-base facilities. We need to see if that is the applicable way to go for contested environments and then assess where we need to go for the future for global posture and maritime transportation, as well as aerial refuel that we talked about.

Senator DUCKWORTH. I feel like this sort of reflects the struggle we had just a couple years ago when I was in the House about ammunition, you know, across the services, and that we were not talking to each other well enough before we did a whole audit. I feel like we are getting to the same issue with fuel. I mean, you cannot fight and win without class 3 and class 5. Right? I feel like we are sort of in the same problem with fuel. Am I correct in this sense that we have to do better with communicating among the services?

General LYONS. Senator, I think you are absolutely correct. I think we need what I would characterize as a global innovative view of the end-to-end liquid energy supply chain to make sure that we have sufficient not just supply and posture but resiliency to continue to operate under a contested environment. I agree with you wholeheartedly.

Senator DUCKWORTH. Thank you.

General Wolters, I would like to bring you into the discussion here. We have been hearing a lot about Defender-Europe and what we hope to learn from this exercise. I am looking forward to hearing about not only the successes but perhaps more importantly the challenges that the exercise helps identify as well.

How would you classify your level of concern going into Defender-Europe 20 whether from an overall capacity standpoint, from a lack of previous exercise familiarity, or due to other factors inside and outside our control, and how are you going to leverage that into lessons learned going forward?

General WOLTERS. Senator, a great question, and I would like to extend a personal thanks to you for your support in the logistics area.

As we speak, there are soldiers downloading at Bremerhaven for Defender-Europe 20 at this very moment.

I am concerned about the bandwidth to be able to accept this large force, and I am also concerned about road and rail from the center portion of Germany to the east, all the way to the eastern border. Because we have the appropriate resources, we now possess a white team capability to examine our speed of move from west to east. We also have enough white cell individuals to assess how safely we get stuff through Bremerhaven and to the next point.

Bandwidth with respect to size and speed are my greatest concerns.

Senator DUCKWORTH. Thank you.

I am over time, Mr. Chairman.

Chairman INHOFE. Senator Blackburn?

Senator BLACKBURN. Thank you, Mr. Chairman.

I know you all are so happy to see me because I am the last one, and you will get to finish up and head off.

I want to go back, General Wolters. You told Senator Reed that the Chinese controlled 10 percent of the shipping rights in and out of Europe. I would like for you to expand on that just a little bit, talk about do you think it is pretty much going to stay at that level, if it is going to increase, the rate of increase, a little bit more insight into what you think this means.

General WOLTERS. The Chinese investment covers 10 percent of European shipping capacity, and I would contend that is a whole-of-government, whole-of-nation concern to make sure that Europe has the appropriate equities with respect to shipping capacity.

Senator BLACKBURN. So you see that as a floor or a ceiling?

General WOLTERS. I see that as the conditions that exist on the ground today, and I think the nations need to understand what that means with respect to their ability to effectively ship what their nation needs for their national interest, and an education process needs to follow fast.

Senator BLACKBURN. Well, I think we see the need for that education process not only when it comes to infrastructure but the Belt and Road Initiative, the implications that that may have as we look at 5G and the rollout there, the implications that it has.

So what is NATO going to do to address this? Because it does not matter if it is shipping and that infrastructure or building roads and connectors or 5G with that infrastructure. There is an issue, and being able to communicate with our allies over a Huawei network is a very difficult thing to do. So give me kind of a timeline and the steps that you all are taking to implement an education process.

General WOLTERS. In the NATO political paradigm, there is a growing realization that this is an issue, and there will have to be a common understanding at the political level at NATO that this is an issue that NATO should embrace. I think that is the start of success to ensure that the national interest of the 29 nations in NATO are protected with respect to China proliferation, and we are at that phase. As a military member supporting NATO, it is my job to report the facts and that is what we are doing.

Senator BLACKBURN. Okay. So who is receptive to this message? The first part of solving a problem is defining a problem. So you say there is awareness in defining this problem. Correct?

General WOLTERS. Correct, and the first task is to ensure of the 29 nations which ones have concern and which ones still need more —

Senator BLACKBURN. Okay, and out of those 29 nations, who is receptive to this and who are you getting pushback from? Are you at a 50/50 on this, or what is the standing there?

General WOLTERS. Senator, I can only speak at the mil-to-mil level not the political level for the 29 nations, and I would say that the majority of the nations are incredibly concerned about China proliferation.

Senator BLACKBURN. I hope we can talk a little bit more about that this afternoon, if that would be okay.

General Lyons, let me move to a couple of things with you, the NDS and cyber and space. Have they been identified as contested

warfighting domains? Talk to me a little bit about how TRANSCOM is working with its private sector partners to improve their cybersecurity, their ability to defend because Senator Ernst asked you about autonomous vehicles and as we look at building out Space Command and artificial intelligence and autonomous vehicles, we know that the cyber component is going to be more relevant in those discussions. So talk with me for just a couple of seconds about that.

General LYONS. Yes, ma'am. Thank you.

For USTRANSCOM, cyber is a very, very high priority. You asked specifically about our commercial providers. We have worked over the last several years now to instill contract language that I would characterize as at least brings our commercial providers up to a basic level of minimum cyber hygiene. I think we have been successful in that. I think we have been successful in gaining the attention and focus of the C-suite as an issue that they have to contend with whether it is for national defense or whether it is for their private equities, and so we are making progress.

But as I said earlier, I would also say that when confronted with an advanced persistent threat actor, I do not think any of our commercial providers necessarily are in a position to protect themselves in that particular scenario. We very intentionally have multiple providers in each of the commodity areas so that if we lose one, we can count on others.

Senator BLACKBURN. Are you increasing the standards of compliance for them?

General LYONS. Yes, Senator, we are, and as you may have seen, the Department's cyber maturity model that they just rolled out will do significant good in that area.

Senator BLACKBURN. Thank you.

I yield back.

Chairman INHOFE. Thank you very much.

The Committee stands adjourned.

[Whereupon, at 11:22 a.m., the Committee adjourned.]

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR THOM TILLIS

HOUSEHOLD GOODS MOVES

1. Senator TILLIS. General Lyons, what are your expectations on accountability and transparency of moving companies in the household goods process this upcoming permanent change of station (PCS) season?

General LYONS. Accountability and transparency are indispensable to the success of the Defense Personal Property Program. My expectations of moving companies on these principles are straightforward. I expect industry to abide by our program's business rules; to be forthcoming with DOD customers with information on the status or condition of their shipment; and to follow established processes to 'make families whole' when things go wrong. When moving companies do not abide by these principles, my staff will follow business rules to hold them accountable. I also believe industry has a reasonable expectation of these principles from USTRANSCOM. I am committed to transparency with industry when it comes to the program's direction and will similarly hold my organization accountable for following our business rules. Ultimately, it is DOD families that are owed accountability and transparency. The Defense Personal Property Program exists for one reason, and one reason only: to provide a safe, quality relocation experience for DOD families as they prepare to serve at their next duty assignment.

2. Senator TILLIS. General Lyons, how different will family's experience be in the quality of service?

General LYONS. For the 2020 Peak Season, we've instituted changes to Defense Personal Property Program business rules that address long-standing pain points for DOD families. From a safety perspective, we require that all moving companies perform background checks on employees and meet local installation access requirements (whether they are serving homes on or off base). Recognizing that many issues center on communication, we require moving companies to be more responsive to customer inquiries, provide more lead time to customers before delivery appointments, and offer more information to customers on the status of their shipment while it's in transit. In instances of loss or damage, we'll give families more time to file claims and require that moving companies settle claims under a certain threshold faster. While many of these changes were inspired by our requirements for the Global Household Goods Contract (GHC), the structure of our current model limits the quality improvements we can make and many of our processes deter companies from participating in the program. Our current construct is a constraint to innovation and advancement, as we are tied to the capabilities of 'the lowest common denominators' in the program. Additionally, the current model prevents us from capitalizing on existing capabilities in industry such as digital inventories, near real-time event status updates as shipments are in-transit, and mobile applications to provide families modern tools to manage all aspects of the move process (including claims). The GHC is an opportunity to raise the standard for DOD families, attract additional quality capacity to the program, and incorporate modern capabilities (which we take for granted in every aspect of our personal lives) into the Personal Property Program.

3. Senator TILLIS. General Lyons, where are you still experiencing shortfalls or limitations in improving household goods moves for military families?

General LYONS. I see three limiting factors to improving the personal property relocation process for DOD families. The first relates to our existing business model. The transactional nature of our relationship with a disparate confederation of suppliers prevents us from capitalizing on existing capacity, limits investment in generating additional capacity, stymies our ability to hold industry accountable, and inhibits us from incorporating modern capabilities (the kind of convenient technology we take for granted in every aspect of our personal lives) into the Personal Property Program. The second relates to the similarly fractured nature of the DOD's management framework. The Department is taking steps to align and integrate activities, but more work is required to evolve from our current series of service-centric activities into a truly Department-wide Personal Property Program. The third relates to the sustained, day-to-day executive leadership required to drive Personal Property reform across the Department. I've temporarily reallocated a member of the Senior Executive Service (SES) from my own staff to lead the Personal Property Program at USTRANSCOM. Meanwhile, I've submitted a request to the Department for an SES allocation to permanently lead the Personal Property Enterprise.

GLOBAL MOBILITY CAPACITY AND POSITIONING

4. Senator TILLIS. General Lyons, in light of force operational changes proposed by each of the services, how is your OCONUS [outside contiguous United States] mobility capacity or positioning impacted?

General LYONS. USTRANSCOM's posture of forces globally is consistent with the National Defense Strategy and Globally Integrated War Plans. Our global mobility posture is critical and allows us to shift rapidly to the highest priority DOD missions. USTRANSCOM's robust global network relies heavily on access, basing, and overflight privileges we leverage as a result of our extensive network of allies and like-minded partners around the globe. We continually assess our global mobility capacity against requirements as war plans are updated in conjunction with the ever-changing geopolitical environment. The Mobility Capability and Requirements Study directed in the latest NDAA will evaluate the demands placed on the mobility enterprise, both in terms of capacity and forces. We will provide a status update to Congress in June and are scheduled to deliver the final report in Jan 21.

INFORMATION WARFARE/ STRATEGIC COMMUNICATION

5. Senator TILLIS. General Wolters, it is great to hear that our allies in the region are maturing in their knowledge and expertise in the cyber and information domain, where can we improve to gain even more proficiency, effectiveness, or functionality, in light of Russia's propaganda activities?

General WOLTERS. We must continue to array our resources and leverage a whole-of-government approach to best defend critical cyber infrastructure and compete to win in the information domain. A key platform for competing with Russia on these fronts is the Russian Influence Group. USEUCOM co-chairs this effort with U.S. Department of State's Bureau of European and Eurasian Affairs to promote whole-of-government cooperation and to identify, attribute, and counter Russia malign activities. Our military-to-military security cooperation programs engage Allies and partners to improve alignment and strengthen our collective ability to compete in the cyber and information domains. Increased flexibility with security cooperation resources, policies, and processes to offer more tools, training, and equipment to Allies and partners would help sustain our positive momentum in these 21st Century domains.

6. Senator TILLIS. General Wolters, you stressed your concerns of Chinese efforts to expand 5G Networks in Europe through Huawei and ZTE. Take a few seconds to explain regional or national security significance of your concern.

General WOLTERS. The Chinese Communist Party (CCP) seeks to gain influence abroad and access to sensitive information through the One Belt and One Road initiative, and other national means. CCP leaders are leveraging Chinese vendors, such as Huawei and ZTE, in this pursuit. Fielding 5G networks in Europe could provide an intelligence and information advantage to the CCP and other challengers in competition, crisis, or conflict. Leveraging these advanced technologies is one way the CCP is attempting to tilt the free and open international order in their favor.

7. Senator TILLIS. General Wolters, it is a positive achievement to note that European nations are becoming increasingly wary of strings attached to Chinese capital and investment. What do you need to double your efforts in this area to achieve intentional impact or broader messaging?

General WOLTERS. In our increasingly interconnected and data-driven world, we must double efforts to communicate the vital importance of a trusted 5G network by leveraging a whole-of-government approach. Trusted networks and infrastructure are a critical requirement to protect sensitive information and competitive advantage. We must remain vigilant with respect to Chinese investment in shipping and logistics hubs across Europe and its potential implications to military mobility into and across the Area of Responsibility (AOR). Improving AOR-wide transparency on these activities helps Allies and partners fully understand the economic and security risks associated with continued increases in Chinese capital and investment.

RELATIONSHIP BUILDING

8. Senator TILLIS. General Wolters, in your view, how do we best operationalize the DIME (Diplomatic, Information, Military, and Economic) model to strategically foster stability and relationships with countries in the South Caucasus, Balkans, or others? In other words, how do we pivot from a transactional to a more transformational relationship?

General WOLTERS. USEUCOM supports and applies a whole-of-government approach across the theater. Our security cooperation exchanges, which bring leaders from across the AOR to the U.S. through the International Military Education and Training programs, and our well-established State Partnership Programs are both transformational examples of DIME in action. These programs develop multi-year cultural and regional expertise as well as foster lifelong relationships. This expertise and these relationships provide unique access and positively affect our ability to compete, deter, and defend in the South Caucasus, the Balkans, and across the Euro-Atlantic.

NORTH ATLANTIC TREATY ORGANIZATION (NATO) OBSERVER GROUP

9. Senator TILLIS. General Wolters, as the co-chair of the Senate NATO Observer Group with Senator Jeanne Shaheen, I am interested in maintaining consistent communication between Congressional leaders and the military leadership of our NATO allies. In your role as United States European Command (EUCOM) commander, how can Congress continue to ensure that U.S. NATO commitments continue to be upheld, and that the shared strategic objectives of alliance members are promoted?

General WOLTERS. Sustained Congressional interest and support of NATO reassures Allies across the Euro-Atlantic and strengthens our ability to preserve peace. Congress' steadfast support of the European Deterrence Initiative continues to underwrite the positive momentum we have maintained with respect to readiness. EDI has been pivotal to our efforts to strengthen U.S. and NATO readiness by sup-

porting operations, activities, and investments, which generate options for Allies and dilemmas for our challengers.

QUESTIONS SUBMITTED BY SENATOR DAN SULLIVAN

DEFENSE PERSONAL PROPERTY PROGRAM (DP3)

10. Senator SULLIVAN. General Lyons, as you know I have paid close attention to the United States Transportation Command's (TRANSCOM) proposal to replace the current Defense Personal Property Program (DP3) with a sole-source Global Household Goods Contract (GHC) and worked to include a provision to conduct a Government Accountability Office (GAO) report on the validity of this contract in the fiscal year 2020 National Defense Authorization Act (NDAA). Historically, I have observed that when the Department of Defense (DOD) awards large sole-source contracts it results in less competition for industry, the potential for greater cost, and decreased customer satisfaction with their service. How will the proposed GHC contract encourage competition to decrease cost and increase the value for the servicemember?

General LYONS. DOD families are our North Star and are the reason we seek to change the program. The GHC is one aspect of a broader DOD reform plan to improve the relocation process for DOD families. USTRANSCOM, on behalf of the DOD, seeks to award the Global Household Goods Contract (GHC) to a single move manager in order to improve access to—and management of—quality capacity to meet peak demand and enable the Department to affix the accountability and responsibility currently lacking in today's program. While pursuing the GHC was never about saving money, I am encouraged by the bids we've received as they are in line with DOD spending in the current program. I acknowledge—and will comply with—the DOD Appropriations language to provide a report on the impact of GHC to Service budgets. Regarding competition, the GHC single move manager will have the latitude to partner with companies it believes add value to the program on the terms and conditions those companies think make sense (versus being bound by the DOD's overly-complicated rule set, which is often cited as a deterrent to participation). The DOD currently pays competitive rates, but we're often told our program isn't worth the hassle. Far from excluding capacity, we seek to eliminate the barriers of entry and attract more agents, packers, and truckers to meet our demand. Revenue distribution is a common complaint in our current program, with agents and drivers routinely highlighting that non-asset owning companies retain in excess of 20 percent of billed revenue. Such 'pass-thru' companies add cost to the DOD without adding value, and siphon income from the men and women who perform the hard work of moving military families. We've built a transparent pricing model to capture cost at a granular level for all services at origin, destination, and in-transit. This model includes a separate management fee paid directly to the single move manager contractor for each move processed. Additionally, it clearly identifies the revenue we expect the single move manager to generate and the revenue we expect to flow to those doing the work. Potential bidders are required to comply with all laws—including the Service Contract Act (SCA)—when submitting proposals; we expect SCA to increase wages for contractor employees performing services 'at the curb.' The move-manager will also be required to ensure a minimum of 40 percent of the total acquisition value of the domestic work performed flows down to subcontracted small businesses. DOD acknowledges that non-asset companies are at risk as a result of GHC. Many of these niche companies exist solely to exploit the gaps and seams in the current program and do so at the expense of the Services' MILPERS accounts without adding value.

11. Senator SULLIVAN. General Lyons, in your opening statement you stated, "My message for industry providers, if you provide quality service for military members, you have a place in the future program. We need every quality moving service to include our small businesses and appreciate all that you do." How will the GHC contract continue to utilize the supply of quality small business moving companies around the country that currently exist in the DP3 program?

General LYONS. Companies that provide quality capacity to the program will be relied upon for as long as DOD moves families around the globe. Far from excluding capacity, we seek to eliminate the barriers of entry and attract more agents, packers, and truckers to meet DOD demand. The majority of today's capacity comes from small business (agents, packers, truckers, etc.). This capacity will remain critical under the new construct. The GHC single move manager will have the latitude to partner with companies it believes add value to the program on the terms and conditions those companies think make sense (versus being bound by the DOD's overly-

complicated rule set, which is often cited as a deterrent to participation). The DOD currently pays competitive rates, but we're often told our program isn't worth the hassle. Far from excluding capacity, we seek to eliminate the barriers of entry and attract more agents, packers, and truckers to meet our demand.

12. Senator SULLIVAN. General Lyons, when evaluating which moving companies are slated to stay in the new GHC program, what criteria will be used to eliminate bad actors, while retaining companies that have performed well in the DP3 system?

General LYONS. When it comes to selecting companies for the GHC, USTRANSCOM will only select the single move manager contractor and—with few exceptions—cannot dictate to the single move manager which subcontractors it hires. For example, the GHC single move manager is prohibited from subcontracting with a company that has previously been disqualified from DOD business in the past three years. Similarly, we will not mandate what companies they must use. Companies that enable the single move managers to meet the contract requirements and key performance indicators will thrive; conversely, companies that fail to meet contract standards will likely (and ideally) not be used to handle DOD shipments. Within the contract, we will apply a combination of financial penalties and incentives to drive industry performance. The most notable 'penalty' will come in the form of inconvenience claims, where the GHC single move manager will compensate DOD families directly in instances of late pick-ups or missed delivery dates. The most notable incentive will come in the form of 'award terms.' If—and only if—the GHC single move manager meets all Key Performance Indicators (KPIs), the contractor can earn two additional years of contract performance without competition. The contract's KPIs were developed by USTRANSCOM and the Military Services to address longstanding pain-points identified by DOD families. As the award terms may represent in excess of 25 percent of the GHC's lifecycle revenue, the GHC single move manager has a strong incentive to meet them—and, as previously mentioned, can only meet them if they employ quality companies.

13. Senator SULLIVAN. General Lyons, how will TRANSCOM protect high-performing small businesses in the transition to the GHC contract to help ensure that these businesses do not go out of business?

General LYONS. Moving and storage companies achieve—and retain—any 'high-performance' label through their own merit. USTRANSCOM will take action to place companies that do not abide by DOD business rules into a 'non-use' or 'disqualified' status. Under GHC, all subcontracting decisions will be made by the GHC single move manager. Companies that enable the single move manager to meet the contract requirements and key performance indicators will thrive; conversely, companies that fail to meet contract standards will likely (and ideally) not be used to handle DOD shipments. Companies that provide quality capacity to the program will be needed as long as DOD moves families around the globe. Far from excluding capacity, we seek to eliminate the barriers of entry and attract more agents, packers, and truckers to meet DOD demand. The majority of today's capacity comes from small business (agents, packers, truckers, etc.). This capacity will remain critical under the new construct.

14. Senator SULLIVAN. General Lyons, in your opening statement you stated, "after personal consultation with Service leaders and industry executives—USTRANSCOM worked to fundamentally restructure our relationship with industry to generate the quality capacity to meet DOD's peak demand and enable the Department to affix the accountability and responsibility missing in today's program." How has TRANSCOM worked with industry to develop the GHC contract and how will DOD ensure that best practices from industry are implemented by the winner of the GHC contract?

General LYONS. DOD coordinated extensively with industry to develop GHC. The USTRANSCOM staff hosted two industry days to exchange information (which included opportunities for one-on-one meetings with interested companies); posted two requests for information to solicit formal industry input; posted two draft Requests for Proposal (RFP) for industry to share insights on; answered nearly 800 questions from industry on GHC; and posted the answers to those questions on the U.S. Government's official contracting website for all parties to review. Additionally, I personally hosted two sets of meetings with industry CEOs and association leaders to outline my vision for GHC. The GHC postures DOD to capitalize on industry best practices and innovation in a way the current construct simply cannot. The transactional nature of our relationship with a disparate confederation of suppliers prevents us from capitalizing on existing capacity, limits investment in generating additional capacity, stymies our ability to hold industry accountable, and inhibits us

from incorporating modern capabilities (to include the modern, convenient technology we take for granted in every aspect of our personal lives) into the Personal Property Program. Until we fundamentally restructure our relationship with industry, the program will never generate the quality service DOD families deserve or the accountability Congress demands.

15. Senator SULLIVAN. General Lyons, how will the GHC contract affect rural and isolated states like Hawaii and Alaska where there are fewer shipping companies and higher transit costs?

General LYONS. Taking Alaska as an example, the GHC rate structure enables bidders to propose Alaska-specific rates (and regional rates within Alaska). Under the current program, Alaska is divided into five distinct 'rate zones' to allow providers to account for key considerations (logistical, labor, etc.) across the state. The rate zones under GHC are identical to the current program, meaning the GHC single move manager can account for differences in handling household goods shipments in Alaska. GHC represents an opportunity for quality providers in Alaska to sustain—or grow—their business. The majority of today's capacity comes from small business. This capacity will remain critical under the new construct. Far from excluding capacity, we seek to eliminate the barriers of entry and attract more agents, packers, and truckers to meet our demand.

16. Senator SULLIVAN. General Lyons, how has TRANSCOM considered these factors in the planned award of the GHC contract?

General LYONS. The GHC outlines standard levels of performance, both at the program level (overall Key Performance Indicators) and at the individual servicemember level. While GHC is clear on required service levels, DOD avoids being prescriptive in how industry should meet those standards; similarly, DOD does not force industry to apply common pricing across all markets. Many move managers and asset-based providers (as well as industry associations that represent them, like the American Moving and Storage Association) agree that DOD's business model is outdated and recognize the business opportunities associated with this change.

17. Senator SULLIVAN. General Lyons, once the GHC contract is awarded, there will likely be a destabilization of the industrial base as small contractors and vendors assess opportunities outside of the construct of the revised DP3 program. This destabilization may occur during the peak summer moving season when capacity needs are at their highest for the DOD. How will TRANSCOM ensure they have a stable base of contractors during the transition phase of the GHC contract, particularly during the initial peak summer moving season?

General LYONS. Although it's the GHC single move manager responsibility to meet its contractual requirements, I agree USTRANSCOM shares the responsibility to establish the conditions in which the single move manager can succeed. One of the ways USTRANSCOM is setting favorable conditions is through the deliberate, responsible transition plan we've established. The current timeline envisions the GHC contractor managing shipments in the continental United States beginning in February of 2021—a full 9 months after contract award. The single move manager is required to handle 25 percent of total volume beginning in February 2021 and roll in additional shipments (25 percent per month thru May 2021) until they are postured to support 100 percent of continental U.S. shipments during the 2021 Peak Season. With an award planned for no earlier than 30 April 2020, this timeline gives the single move manager a full year to prepare (IT integration, staffing, training, etc.) for the 2021 peak season. We will wait until October 2021 (following peak season) to continue the transition to GHC and incorporate international shipments. While I believe a 9-month transition period before requiring the single move manager to accept any bookings is a responsible timeline, DOD will remain flexible and adjust the transition plan as needed. During transition and implementation phases, we will be driven by improvements and not the calendar.

18. Senator SULLIVAN. General Lyons, TRANSCOM currently uses a performance incentive program in the DP3 system in which companies are given financial penalties to regulate poor behavior. How will TRANSCOM maintain control and accountability over a large company that is awarded the GHC contract where financial penalties may not be as effective?

General LYONS. To be clear, the DOD does not have effective performance management measures in the current program. DOD does not have a formal contract with any of our current providers and cannot hold them accountable in a meaningful way. Over time, DOD allowed the program to evolve in a manner that now favors industry, with suppliers exploiting business rules to generate revenue at the ex-

pense of military families & Service budgets. Implementing the GHC offers the Department the opportunity to set terms and conditions that favor DOD families and an avenue to hold industry accountable. As we restructure our relationship with industry, we will similarly restructure and align the DOD's management framework (the Service-owned Personal Property Processing and Shipping Offices around the globe) to provide the rigorous, centralized oversight required of a program that directly and personally impacts DOD personnel. Just as our transition period postures the GHC single move manager for success, the timeline also postures the DOD for success; we will use that time to appoint and train Quality Assurance Evaluators, Alternate Contracting Officer's Representatives, Ordering Officers, and Invoicing Officers to effectively manage and oversee the contract. These offices are the center of gravity for holding industry accountable. Within the contract, we will apply a combination of financial penalties and incentives to drive industry performance. The most notable 'penalty' will come in the form of inconvenience claims, where the GHC single move manager will compensate DOD families directly in instances of late pick-ups or missed delivery dates. The most notable incentive will come in the form of 'award terms.' If—and only if—the GHC single move manager meets all KPIs, the contractor can earn two additional years of contract performance without competition.

19. Senator SULLIVAN. General Lyons, it is my understanding that TRANSCOM is now preparing comments on the GAO report regarding the GHC contract that myself and Senator Tim Kaine requested last year. Do you believe that TRANSCOM will need to postpone the awarding of the GHC contract to respond and address concerns in the GAO report?

General LYONS. No, the GAO report does not delay our planned GHC award. After 10 months of detailed data exchanges and more than one hundred requests for information, USTRANSCOM is confident GAO had access to all the relevant information in order to conduct an exhaustive review of our work on GHC and broader personal property reform efforts. GAO makes three recommendations in their report: 1) that DOD develop a process to track data during the first three years of GHC operations to more precisely determine overall Defense Personal Property Program (DP3) manpower requirements; 2) that DOD develop metrics for DP3 activities that fall outside of the GHC (for example, things like Service-retained counseling and processing timelines within the Military Claims Offices); 3) that DOD articulate the linkages between metrics and overall program goals. These recommendations are sensible and are consistent with USTRANSCOM's vision to evolve the program from a series of disparate Service-owned activities into a truly integrated, synchronized Departmental program. Moreover, the report confirms many of the issues USTRANSCOM has highlighted to the Department and Congress over the last two years. It is important to note that GAO issued no negative findings or recommendations regarding the single move-manager construct, nor did GAO recommend any changes to the acquisition strategy or overall timeline for GHC award and implementation.

KC–46 BASING

20. Senator SULLIVAN. General Wolters, on October 24, 2019, the Air Force announced the start of the Strategic Basing process for the Main Operating Base (MOB) 5 beddown of KC–46 aircraft. Alaska has the existing infrastructure to support aerial refueling operations, a robust current need for aerial refueling capability, and a strategic location which is in close proximity (but not too close) to three of five main threats prioritized within the 2018 NDS. These factors make my state an ideal platform from which to deploy a larger amount of combat power to multiple areas of operation. What benefit would EUCOM potentially gain from the basing of these aircraft in a geographically-central and strategic location such as Alaska?

General WOLTERS. From the perspective of USEUCOM's role as global coordinator for the Russia Problem Set, basing KC–46s in Alaska could further support dynamic employment of forces into and out of the USEUCOM AOR and increase strategic and operational dilemmas for Russia. Service Secretaries are the decision authority for basing of forces within the United States, in the case of KC–46s and Alaska, the decision rests with the Secretary of the Air Force.

21. Senator SULLIVAN. General Wolters, what message might it send Russia – the main threat in EUCOM – if the United States Air Force were to co-locate the next generation tanker with over 100 5th Generation fighters in a place like Alaska?

General WOLTERS. Co-locating next-generation tankers with a large number of 5th generation fighters in Alaska would send a strong message to Russia. Arraying com-

bat power in this manner is one way to communicate our preparedness to defend the Homeland, and our ability to respond rapidly and at scale, to a violation of U.S. airspace along our Western borders. Such positioning of assets should be balanced with Russia's elevated threat perception and long-term counteraction.

22. Senator SULLIVAN. General Lyons, in your testimony under "Aerial Refueling" you state, "USTRANSCOM's most-stressed capability and number one readiness concern. The aerial refueling fleet continues to underpin the Joint Force's ability to deploy an immediate force across all NDS mission areas and is comprised of KC–135, KC–10, and KC–46 aircraft." Given the substantial need for added aerial refueling assets and U.S. Air Force's desire to grow the number of its tanker squadrons as a part of the 386 squadron construct, does it not make sense for the U.S. Air Force to pursue additive basing actions (as opposed to replacement basing actions) for KC–46 tankers, especially when the tankers to be replaced are KC–135s?

General LYONS. As the KC–46 is fielded to recapitalize the aging KC–135 and KC–10 fleets, the beddown of those aircraft will be decided using the United States Air Force's Strategic Basing Process, which is led by the Secretary of the Air Force (SECAF). This SECAF-led process accounts for fiscal and operational impacts to the tanker fleet and is designed to be repeatable, defendable, and transparent, to include routine interactions between the SECAF and Congress. The USAF process strives to leverage existing infrastructure to the maximum extent possible, while accounting for global air refueling demand to ensure the posture support Combatant Commander requirements. I appreciate the Secretary's transparent process and the efforts to identify where best to base the KC–46 to meet global demand. Although basing is important, USTRANSCOM recognizes that the KC–46 will be an air refueling asset capable of supporting global missions.

23. Senator SULLIVAN. General Lyons, in your personal opinion, would the basing of a squadron of KC–46s at Kadena Air Force Base or Anderson Air Force Base result in them – largely or almost exclusively – being tasked for operations in a single area of operation?

General LYONS. As the KC–46 is fielded to recapitalize the aging KC–135 and KC–10 fleets, the beddown of those aircraft will be decided using the United States Air Force's Strategic Basing Process, which is led by the Secretary of the Air Force (SECAF). This SECAF-led process accounts for fiscal and operational impacts to the tanker fleet and is designed to be repeatable, defendable, and transparent, to include routine interactions between the SECAF and Congress. The USAF process strives to leverage existing infrastructure to the maximum extent possible, while accounting for global air refueling demand to ensure the posture support Combatant Commander requirements. I appreciate the Secretary's transparent process and the efforts to identify where best to base the KC–46 to meet global demand. Although basing is important, USTRANSCOM recognizes that the KC–46 will be an air refueling asset capable of supporting global missions.

24. Senator SULLIVAN. General Lyons, from your perspective, does it make strategic sense to pigeon-hole a low-density, high-demand aerial refueling asset like the KC–46 to one area of operation, or more importantly, to largely a single operation plan (OPLAN) within that area of operation?

General LYONS. As the KC–46 is fielded to recapitalize the aging KC–135 and KC–10 fleets, the beddown of those aircraft will be decided using the United States Air Force's Strategic Basing Process, which is led by the Secretary of the Air Force (SECAF). This SECAF-led process accounts for fiscal and operational impacts to the tanker fleet and is designed to be repeatable, defendable, and transparent, to include routine interactions between the SECAF and Congress. The USAF process strives to leverage existing infrastructure to the maximum extent possible, while accounting for global air refueling demand to ensure the posture support Combatant Commander requirements. I appreciate the Secretary's transparent process and the efforts to identify where best to base the KC–46 to meet global demand. Although basing is important, USTRANSCOM recognizes that the KC–46 will be an air refueling asset capable of supporting global missions.

25. Senator SULLIVAN. General Lyons, would you agree with Secretary Mark T. Esper when he said that basing KC–46s in a place like Alaska would provide "extreme strategic reach"?

General LYONS. I would agree with the Secretary on the value of "extreme strategic reach," with the context that strategic mobility assets like our air refueling fleet provide that every day around the globe. The home station of our mobility aircraft is but one component of global responsiveness. Across the broad spans of the

Indo-Pacific region the elements of access, basing, and overflight to en route and forward locations are essential to position and employ combat capability and as important if not more so to where we home station mobility assets. The ability of USTRANSCOM to control and rapidly shift assets anywhere in the world to address emerging and high priority needs is also foundational to global responsiveness. So, using the notion of "extreme strategic reach," mobility assets must operate not only across broad regions such as INDOPACOM, but globally with the responsiveness to fully leverage the combat power of the Department when and where it is needed – USTRANSCOM is uniquely capable of performing these tasks and that is my primary focus.

QUESTIONS SUBMITTED BY SENATOR DAVID PERDUE

PORT OF SAVANNAH

26. Senator PERDUE. General Lyons, the U.S. Department of Transportation recently announced the awarding of an additional $34.6 million grant for critical infrastructure improvements at the Port of Savannah, building on the President's budget request of $93.6 million in federal funding in support of the Savannah Harbor Expansion Project. The Port of Savannah is the third largest container port in North America and is a strategic seaport within the National Port Readiness Network. The Port of Savannah is also one of the commercial ports used to transport U.S. forces from the United States to Europe as part of the Defender-Europe 2020 exercise. The Port of Savannah's participation in this exercise emphasizes the increased capabilities an expanded Port of Savannah can provide for the future deployment needs of the U.S. military. To what extent does the expansion of major commercial ports like the Port of Savannah improve military readiness and support your command's mission of efficiently transporting large U.S. troop formations in times of war and times of national emergency?

General LYONS. There are two primary operating terminals at the Port of Savannah, Garden City Terminal and Ocean Terminal. Garden City Terminal is a purpose-built container terminal, and Ocean Terminal is a dedicated breakbulk, heavy-lift and roll-on/roll-off (RO/RO) facility. The DOD Strategic Seaport Program Port Readiness Plan (PRP) for the Port of Savannah currently only includes infrastructure at Ocean Terminal. As you may already be aware, the Savannah Harbor Expansion Project is essentially a dredging effort which will increase the shipping channel depth from 42 feet to 47 feet. The primary objective of this project will be to allow the port to berth and service the larger container vessels coming through the Panama Canal from Asia, more than likely bound for Garden City Terminal. DOD surge deployments would rely on a variety of military and commercial vessels to deploy unit cargo and combat equipment. The largest of these is typically the Large, Medium Speed, Roll-on/Roll-off (LMSR) from the U.S. Navy's Military Sealift Command (MSC) and Fast Sealift Ship (FSS) vessels from the Maritime Administration's (MARAD) Ready Reserve Force. The maximum water draft of these vessels ranges from 35 feet to 37 feet which means that the current (pre-Harbor Expansion Project) channel depth of 42 feet already meets DOD's needs. In general, most port expansion efforts are understandably focused on enhancing the infrastructure supporting contemporary commercial port business, which is predominantly containerized cargo. The cargo DOD must move through our Strategic Seaports is mostly oversized, overweight equipment, rolling stock, tracked vehicles and some containers. As a result, the most suitable facilities for DOD movements are typically breakbulk, heavy-lift and RORO facilities like Savannah's Ocean Terminal, rather than purpose-built container facilities like the Garden City Terminal. The condition of the existing Strategic Seaport facilities which DOD relies upon is currently being assessed as directed within the fiscal year 2020 NDAA. We anticipate this report will be delivered to Congress by the end of July 2020. Additionally, USTRANSCOM periodically assesses the sufficiency of the existing Strategic Seaports to meet DOD's requirements, to determine if there is a need to bring additional ports into the Strategic Seaport Program. Based on the current assessment, we have access to sufficient seaport capacity on each coast (East / West / Gulf) to meet rapid deployment needs.

JOINT SURVEILLANCE TARGET ATTACK RADAR SYSTEM (JSTARS)

27. Senator PERDUE. General Wolters, JSTARS aircraft have been active in supporting the National Defense Strategy (NDS) around the world. The 116th Air Control Wing, based out of Robins Air Force Base, deployed to Germany this past fall. With the return of great power competition, the 116th Air Control Wing's deploy-

ment to Germany provides needed intelligence, surveillance, and reconnaissance (ISR) capabilities in support of our military's forward-deployed forces in Europe. The 116th Air Control Wing's deployment sends an additional signal to our NATO allies that the United States remains committed to the collective defense of the Alliance in the face of both near-peer and emerging threats. To what extent does the forward deployment of JSTARS aircraft and its ISR capabilities in the EUCOM area of responsibility (AOR) improve United States and NATO readiness in the face of near-peer competitors?

General WOLTERS. The Joint Surveillance Target Attack Radar System (JSTARS) is a critical contributor to USEUCOM and NATO's Indications and Warnings framework. It provides a unique capability to establish and maintain patterns of Russian movement within the AOR and provides a distinctive capability to reassure our NATO Allies and deter Russia.

28. Senator PERDUE. General Wolters, JSTARS aircraft also need avionics upgrades in order to become fully-compatible with European defense systems. Can you provide an update on what upgrades are necessary to ensure JSTARS can remain fully operational in the EUCOM AOR?

General WOLTERS. Three specific avionics upgrades must be completed for JSTARS to be fully compatible with European defense system mandates. By European Union mandate, VHF radios must be upgraded with a 8.33kHz channel spacing frequency, aircraft must be equipped with the Automatic Dependent Surveillance-Broadcast Out capability, and the aircraft's Identification Friend or Foe equipment must be equipped with Mode 5 capability.

QUESTIONS SUBMITTED BY SENATOR JEANNE SHAHEEN

NATO CYBER OPERATIONS CENTER

29. Senator SHAHEEN. General Wolters, can you provide an update on the operational status of the NATO Cyber Operations Center, as well as your expectations regarding its long-term impact?

General WOLTERS. As a component of NATO's Command Structure, the Cyber Operations Center (CyOC) maintains positive momentum towards full operational capability in spring 2022. The CyOC is integrated with baseline activities and current operations across the Alliance. It plays a critical role in NATO's comprehensive deterrence and defense activities. At full capability, the CyOC will provide NATO an operational theater cyberspace component. In this role, it will be responsible for persistent, centralized, and comprehensive cyberspace situational awareness and a focal point for the coordination of NATO military activities in cyberspace.

QUESTIONS SUBMITTED BY SENATOR RICHARD BLUMENTHAL

EUROPEAN DETERRENCE INITIATIVE

30. Senator BLUMENTHAL. General Wolters, the United States continues to build interoperability is through deliberate efforts like the European Deterrence Initiative (EDI), which you highlight in your posture statement. You state that this initiative is "critical to our deterrence and posture successes" and allows you to "enhance the readiness and interoperability of U.S. and alliance forces." But the President's budget request cuts security cooperation funding within the EUCOM AOR by around 40-percent. Additionally, funding for EDI was cut by over 1 billion dollars in this year's proposal. Are you concerned about these drastic funding cuts?

General WOLTERS. To ensure alignment of ends and means, EDI must continue to be an annual request until either the base budget fully accounts for ongoing activities to compete with Russia, or the security environment changes significantly. Maintaining EDI funding levels sustains positive momentum with respect to posture and readiness. EDI funding is pivotal to fully implement the National Defense Strategy and our efforts to compete with Russia and counter malign influence.

31. Senator BLUMENTHAL. General Wolters, how will these proposed cuts impact your ability to partner with, and conduct exercises with, our EUCOM allies?

General WOLTERS. EDI resources enable USEUCOM to compete and deter adequately. USEUCOM will work with Allies and partners to balance and prioritize exercise objectives and to determine appropriate levels of participation in due course of our exercise planning process. We will continue to work relentlessly to get the most out of resources available. Where required, we will adjust the scale and scope

of our operations, activities, and investments to best meet the objectives laid out in the National Defense Strategy with available means.

32. Senator BLUMENTHAL. General Wolters, how does security cooperation within EUCOM—including joint exercises, subject matter exchanges, and other military-to-military engagements—contribute to a strong and peaceful European continent?

General WOLTERS. Security cooperation reinforces efforts to preserve peace and improves collective preparedness should conflict occur. These efforts improve partners' ability to participate in Coalitions and project security. Security cooperation bolsters relationships between U.S., and partner nations, and provides a network of valuable security relationships to be leveraged in competition, crisis, or conflict.

33. Senator BLUMENTHAL. General Lyons, General Wolters said in his posture statement that, "European Deterrence Initiative funds have also improved our ability to respond using prepositioned stocks and improved theater infrastructure. Together, these improvements enable the rapid deployment and sustainment of forces." Can you expand on how the EDI has improved TRANSCOM's ability to project and sustain combat power in Europe?

General LYONS. Infrastructure improvements initiated first by the European Reassurance Initiative (ERI) and continued through EDI largely serve to expand the scalability and resiliency of the Global Distribution Network in Europe. Any one particular project cannot showcase the impact; it is a layered approach that improves the state of our network as improvements are made over the years. To list a few improvements as examples, added multimodal infrastructure capacity in Romania enables transload of combat power from large vessels to aircraft in a region where such a capability was limited in the past. Improved transit facilities in Italy mitigated an ammunition distribution capability shortfall in that region of the AOR. Placement of deployable air base systems and rapid airfield damage repair kits in Germany, Denmark, Romania, Norway, Spain, Iceland, and Hungary will significantly increase our ability to deliver to both dispersed airfields and those damaged by enemy fire.

General WOLTERS.

TRANSCOM MODERNIZATION AND SURVIVABILITY IN THE ERA OF GREAT POWER COMPETITION

34. Senator BLUMENTHAL. General Lyons, TRANSCOM has consistently delivered over nearly 20 years at war, deploying and sustaining our forces across the global. General Lyons, you rightfully highlight in your posture statement that while this is an impressive logistical display, it has been done largely uncontested. You point out the critical requirement that TRANSCOM must " . . . be able to project and sustain the Joint Force under persistent, all-domain attack." How are we modernizing Maritime Sea Lift Command and Air Mobility Command to be more resilient to the realities of a contested mobility environment?

General LYONS. USTRANSCOM continues to analyze the operational environment and explore modernization opportunities in the near, mid, and long-term in order to maintain our comparative military advantage in power projection. Our ability to project the force under persistent all domain attack requires us to understand adversarial capabilities and intent, upgrade platforms with defensive countermeasures, modernize C2 architecture, and most importantly, integrate the sustainment warfighting functions with the other warfighting functions like protection, fires, and maneuver. The Mobility Capabilities and Requirements Study, as well as wargames and global exercises, continues to highlight the need to balance force modernization efforts with mobility capacity in order to operate in contested environments as described in the National Defense Strategy. For maritime sealift, the DEFENDER 20 exercise afforded the opportunity to integrate Military Sealift Command sealift forces with Commander, Second Fleet and Commander, Sixth Fleet surface forces to ensure freedom of movement. The U.S. Air Force is working to improve integration of Mobility Air Forces with electronic warfare training and Joint All Domain Command and Control. As a joint force, we are training to operate in a new environment where our logistics are consistently under attack, and to mitigate the effects to our joint deployment and distribution enterprise. Operating in a contested environment now and in the future requires USTRANSCOM to drive required force development efforts through established planning and budgetary processes to mitigate risk and enable our transport platforms to operate successfully.

35. Senator BLUMENTHAL. General Lyons, how have we adjusted our land based and maritime pre-positioned stockpile posture to address the challenges created by great power competition?

General LYONS. USINDOPACOM and USEUCOM have enhanced pre-positioned stockpiles, including ammunition and deployable air base systems, in their respective AORs. Pre-positioning these assets enables TRANSCOM high demand / low density strategic mobility assets to be available for other critical movements during conflict. We continue work with INDOPACOM to analyze fuel posture in the Indo-Pacific AOR and identify any necessary fuel posture changes to overcome the challenges posed by great power competition. In addition to fixed fuel posture, we are also looking at ways to optimize our afloat pre-positioned fuel posture as part of the same study.

CLIMATE CHANGE AND ARTIC POWER PROJECTION

36. Senator BLUMENTHAL. General Lyons, what is TRANSCOM doing to adjust to the realities of climate change as it relates to the United States' ability to conduct power projection into the Artic and utilize previously unavailable sea lines of communication?

General LYONS. USNORTHCOM serves as the executive agent for capability development in the Arctic. USTRANSCOM supports the DOD Arctic Strategy as well as geographic combatant commands and Service-led efforts to ensure access to Arctic waters and infrastructure as it relates to our nation's ability to project power. As described in the DOD Arctic strategy, Russia and Canada both claim the right to regulate Arctic waters in excess of the authority permitted under international law. There is also increased activity in the region to include Russian commercial and military investment and Chinese presence.

37. Senator BLUMENTHAL. General Lyons, what are the unique challenges that you face when deploying and sustaining forces in the Artic?

General LYONS. USNORTHCOM serves as the executive agent for capability development in the Arctic. The harsh environment and, in the USNORTHCOM AOR, limited infrastructure in the high north is expected to complicate deployment and sustainment of forces in support of homeland defense. USTRANSCOM supports USNORTHCOM planning through scheduled OPLAN reviews and development of the Theater Distribution Plan, a key element of the Campaign Plan and associated bi-annual review.

38. Senator BLUMENTHAL. General Lyons, how are we coordinating with our partners and allies that provide us with critical nods in the Global Deployment Network—such as airfields and seaports—to ensure they are investing in climate resilient infrastructure?

General LYONS. USTRANSCOM coordinates through the Services to ensure that host nation funded construction planned for DOD OCONUS installations is designed and constructed to the same standards as U.S. funded construction, including provisions for climate resiliency. As an example, we coordinate with the Services to ensure that new host nation funded infrastructure at DOD OCONUS installations is constructed outside of the 100-year flood plain where possible. Regarding commercial airfields and seaports, the DOD's ability to influence investment in climate resilient infrastructure is very limited. Many of our partners and allies recognize the importance of investing in climate resilient infrastructure and have taken appropriate action to do so. Factoring in climate resiliency in construction, renovation, and area development plans has become a standard engineering practice that my command benefits from. This will ensure the viability of the commercial deployment and distribution nodes that are so very critical to USTRANSCOM missions.

CONFLICT IN EASTERN UKRAINE

39. Senator BLUMENTHAL. General Wolters, in your posture statement you point out that, "Russia and its proxies continue their campaign to destabilize Ukraine's defense, economic, and political sectors with the intent of cementing Ukraine into the Kremlin's sphere of influence." United States reassurance and efforts to strengthen our partnership with Ukraine is essential to their ability to resist malign efforts to undermine their sovereignty. Can you provide this Committee with an update on what EUCOM is doing to deter Russian aggression – both kinetic and non-kinetic – and to counter Russia's propaganda and misinformation campaign?

General WOLTERS. USEUCOM supports and applies a whole-of-government approach to competition and deterrence. A key platform for countering malign Russian influence is the Russian Influence Group (RIG). The RIG is an interagency network

co-led by USEUCOM and the U.S. Department of State's Bureau of European and Eurasian Affairs. The RIG operates along six lines of effort: support democratic governance and the rule of law; assess and respond to disinformation/propaganda; strengthen NATO's capability, capacity, and resolve; disrupt the Kremlin's mobilization of local support; constrain informal actors with opaque funding, and counter the Kremlin's coercive use of the energy sector.

Our military-to-military security cooperation programs engage partners to improve alignment and strengthen our collective ability to compete and deter. As a member of the Multinational Joint Commission-Ukraine, Strategic Communications Sub-Committee, USEUCOM coordinates and provides training on core strategic communications competencies. The Joint Multi-national Training Group-Ukraine is a United States-led, dedicated training mission focused on improving Ukrainian forces' ability to conduct wide-area security and combined arms maneuver at the brigade level. Ukraine participates in multiple United States-sponsored joint exercises in the Black Sea, improving interoperability with NATO air and maritime forces, and strengthening deterrence and defense in the Euro-Atlantic.

40. Senator BLUMENTHAL. General Wolters, what progress has been made in the last year specifically in the cybersecurity realm to improve the capabilities of Ukrainian forces?

General WOLTERS. In March 2019, United States DOD delivered, installed, configured, and tested equipment for a Cyber Security Operations Center (CSOC) to the Armed Forces of Ukraine (AFU) currently being accredited by Ukrainian authorities. It is scheduled for initial operational capability later this year, and the CSOC will provide an ability to protect and monitor classified and unclassified networks. In November 2019, U.S. DOD facilitated the assignment of a Defensive Cybersecurity Advisor to the AFU to accelerate the development of their defensive cybersecurity program. Cyber training and education centers are in the early stages of development and will be the platform to train and educate Ukraine's cyber force.

41. Senator BLUMENTHAL. General Wolters, what metrics should Congress use to measure the effectiveness of United States efforts in Ukraine?

General WOLTERS. The key metric of effectiveness is Ukraine's continued independence, sovereignty, and the ability to conduct free and fair elections. Continued progress on civilian oversight of the military, reforms to command and control, human resources, and defense industry practices are other appropriate metrics for assessing the success of United States efforts in Ukraine.

42. Senator BLUMENTHAL. General Wolters, how would you assess our current support for Ukrainians?

General WOLTERS. United States servicemembers at the Joint Military Training Group-Ukraine work shoulder-to-shoulder with Ukrainian forces to inform and support Ukraine's military planning efforts and increase combat capability. Ukraine continues to benefit from International Military Education and Training funding, and we view this as a critical investment in Ukraine's future. Sustained Congressional support for assistance to Ukraine continues to be impactful. Since 2014, Congress has appropriated more than one billion dollars to Ukraine in security assistance funds. This consistent, visible support is a demonstration of our commitment to Ukraine. Earlier this year, Ukraine concluded it's first-ever Foreign Military Sales purchase of defensive Javelin anti-tank missile systems. The flexibility Congress has provided by allowing 50 percent of fiscal year 2020 Ukraine Security Assistance Initiative funds to be committed over two years has been significant. This provision has improved our ability to target Ukraine's defensive equipment needs, including the acquisition of Mark VI Patrol Boats, which enhance Ukraine's defense capabilities. The flexibility to obligate all of the fiscal year 2021 Ukraine Assistance Initiative funds over a multi-year period would further enhance the Department's ability to better support Ukraine's capability needs.

DEFENSE PERSONAL PROPERTY PROGRAM

43. Senator BLUMENTHAL. General Lyons, in January the DOD Inspector General released their report on the Personal Property Relocation Program. It stated that, "TRANSCOM can improve how it holds Moving companies accountable for poor performance in its current structure of the moving program." Have you identified a viable candidate in the GHC selection process who can fully handle the entire PCS process?

General LYONS. USTRANSCOM is working through the process of evaluating proposals to make an award no earlier than 30 April, at which time we will determine

and announce the winning company. During this time, information cannot be shared about the selection process. However, USTRANSCOM is confident the proposals received include the requisite details to handle the elements of the PCS process that industry has historically supported (i.e., packing, transport, delivery of household goods, etc.). The GHC integrates those functions performed by commercial entities now, as the government will continue to maintain ordering of services and a strong accountability program for contractor performance.

44. Senator BLUMENTHAL. General Lyons, what contingencies exist if the GHC goes thru and results in a similar failure of performance to that seen in the privatization of military housing?

General LYONS. A contract alone is not a solution—the success or failure of a contract ultimately comes down to an organization's ability to manage and oversee the contract. Learning from military housing issues, DOD has made a single organization—USTRANSCOM—responsible for management and oversight of GHC. To be clear, DOD does not have effective performance management measures in the current program. DOD does not have a formal contract with any of our current providers and cannot hold them accountable in a meaningful way. Over time, DOD allowed the program to evolve in a manner that now favors industry, with suppliers exploiting business rules to generate revenue at the expense of military families and Service budgets. Implementing the GHC offers the Department the opportunity to set terms and conditions that favor DOD families and an avenue to hold industry accountable.

45. Senator BLUMENTHAL. General Lyons, I have read that TRANSCOM may be looking to end the Personal Property Relocation Advisory Panel, in what many believe is a premature move, as this panel would be beneficial to help disseminate information during the GHC transition and provide feedback from family members. Why do you believe this is a good plan?

General LYONS. In the fiscal year 202020 NDAA, Congress directed DOD to establish a Military Relocation Advisory Committee consisting of members of USTRANSCOM, military services, moving companies, and consumer representatives who are either members of the Armed Forces or spouses of members of the Armed Forces. At my request, OSD delegated establishment and management of this Committee to USTRANSCOM. My staff is currently coordinating with the Services to identify their nominees for this Committee, which may include the representatives they have currently designated to participate in the PPRAP. We will continue to host PPRAP sessions until the Military Relocation Advisory Committee is fully operational.

46. Senator BLUMENTHAL. General Lyons, last year, I asked you to commit to prioritizing the needs of military families as you consider reforms to DP3 and that you to provide Congress an update on how families' input is being implemented to improve the process. Can you provide an update on where your command stands on this issue?

General LYONS. For the 2020 Peak Season, we've instituted changes to Defense Personal Property Program business rules to address long-standing pain points for DOD families. Key actions include: From a safety perspective, requiring that all moving companies perform background checks on employees and meet local installation access requirements (whether they are serving homes on or off base). The safety and security of DOD families is paramount. We recognize that many issues center on communication, we require moving companies to be more responsive to customers. Moving companies must maintain a call center during specified hours; respond to customer inquiries within 30 minutes; provide e-mail updates on the status of the shipment throughout the process; and provide a single point of contact for all aspects of the moving process. Requiring moving companies to provide pre-shipment weight estimates 10 days prior to pack-out, and to perform automatic shipment reweighs in the event the actual shipment weight is within 10 percent of a customer's weight entitlement. This provides families with the information to avoid exceeding weight entitlements and excess cost scenarios. Providing more lead time to customers before delivery appointments. Previously, moving companies were only required to provide two-hour notice—and if a family didn't respond fast enough to accept the shipment, it was placed into storage. For Peak Season 2020, companies are required to provide 24-hour notice and make at least two attempts to schedule the delivery before it goes into storage. We have established a baseline for inconvenience claims (where none currently exists) and streamlined the process for customers. Inconvenience claims are payable with moving companies miss their assigned pick-up or delivery dates. When applicable, customers will be paid the base-

line rate—which is tied to the local meals and incidental per diem rate—without having to document and provide receipts for each expense. We've preserved the process for customers to seek reimbursement for out-of-pocket costs in the event their expenses exceed the per diem baseline (any amount above and beyond that baseline may be reimbursed when supported with receipts). We are providing more time for families to submit loss and damage claims (from 75 days to 180 days) and requiring that moving companies settle claims faster (any claim under $1,000 within 30 days, and any other claim within 60 days). Historically, moving companies made the decision on whether to repair a broken item or pay the customer an amount equivalent to repair costs. For Peak Season 2020, we empower DOD families to make that decision. Finally, we clarified rules that the moving company (and not the subcontracted agent) was responsible for any damage to a family's residence (customers have up to 5 days to identify damage to real property). Although moving will never be an enjoyable process for families, the GHC does posture the Department to improve availability of quality capacity to meet peak demand; communication throughout the process; service standards 'at the curb;' clear accountability when things go wrong; and improved claims process in the event of loss, damage, or inconvenience. To the point of your question, we are wholly focused on delivering an improved relocation experience for DOD families. While pursuing the GHC was never about saving money, I am encouraged by the bids we've received as they are in line with DOD spending in the current program. I acknowledge—and will comply with—the requirement in the fiscal year 202020 NDAA to provide a report on the impact of GHC to Service budgets. We remain on track to award the GHC no earlier than 30 April.

47. Senator BLUMENTHAL. General Lyons, what specific actions have you taken in the interim to address the issues military families face moving under the current system?

General LYONS. For the 2020 Peak Season, we've instituted changes to Defense Personal Property Program business rules to address long-standing pain points for DOD families. Key actions include: From a safety perspective, requiring that all moving companies perform background checks on employees and meet local installation access requirements (whether they are serving homes on or off base). The safety and security of DOD families is paramount. We recognize that many issues center on communication, we require moving companies to be more responsive to customers. Moving companies will be required to provide pre-shipment weight estimates 10 days prior to pack-out, and to perform automatic shipment reweighs in the event the actual shipment weight is within 10 percent of a customer's weight entitlement. Providing more lead time to customers before delivery appointments. For Peak Season 2020, companies are required to provide 24-hour notice and make at least two attempts to schedule the delivery before it goes into storage. Established a baseline for inconvenience claims (where none currently exists) and streamlined the process for customers. Inconvenience claims are payable with moving companies miss their assigned pick-up or delivery dates. USTRANSCOM preserved the process for customers to seek reimbursement for out-of-pocket costs in the event their expenses exceed the per diem baseline (any amount above and beyond that baseline may be reimbursed when supported with receipts). Finally, we will provide more time for families to submit loss and damage claims (from 75 days to 180 days) and requiring that moving companies settle claims faster (any claim under $1,000 within 30 days, and any other claim within 60 days).

48. Senator BLUMENTHAL. General Lyons, have the metrics improved?

General LYONS. Customer Satisfaction Scores—the metric typically associated with DP3—have improved—2017: 90.8 percent (full calendar year)—2017 Peak Season: 83 percent to 85.8 percent—2018: 91.4 percent (full calendar year)—2018 Peak Season: 84.3 percent to 86.9 percent—2019: 93.7 percent (full calendar year)—2019 Peak Season 89.3 percent to 91 percent. Although we saw improvements in satisfaction this past year, our current model limits the quality improvements we can make. Our current construct is a constraint to innovation and advancement, as we are tied to the capabilities of 'the lowest common denominators' in the program.

49. Senator BLUMENTHAL. General Lyons, what oversight and accountability measures have you implement to incentive better performance?

General LYONS. In addition to adjusting business rules to address longstanding pain-points identified by DOD families, USTRANSCOM has taken steps to improve accountability where possible within our currently flawed framework. Rather than relying on a disparate network of Shipping Offices to be the primary enforcers, the Personal Property Staff at USTRANSCOM has taken on a much more active role in investigating and holding industry accountable for poor performance and viola-

tions of business rules. In the first 3 months of 2020, for example, we've put moving companies into a non-use status for defrauding the U.S. Government by impersonating servicemembers to complete satisfaction surveys; for failing to declare Common Financial and Administrative Control in the international market, which disadvantaged its competitors; and for failing to maintain insurance on storage facilities, which put DOD families' possessions at risk. In several cases, military investigative services and the Department of Justice are involved. Regarding oversight, USTRANSCOM holds routine workshops with the Services to develop and refine business processes, hold monthly calls with Military Spouses, and reinvigorated the General Officer Steering Committee to ensure senior Service leaders have visibility and oversight of program operations. Most notably, I've reorganized staff to improve program oversight. I've elevated the Defense Personal Property Program to an independent staff section within USTRANSCOM and have assigned a member of the Senior Executive Service to lead it. That Director reports to directly to me and is responsible for advocating for DOD families during the relocation process, and for integrating the operational, financial, contractual, policy, and IT aspects of the Defense Personal Property Program.

50. Senator BLUMENTHAL. General Lyons, the fiscal year 2020 NDAA directed GAO to conduct a study on this issue in order to inform the best way forward and ensure we avoid the same challenges that we did with the transition to privatization housing, and your posture statement mentions a draft of such a study. When do you expect that this study will be completed and transmitted to the Senate Armed Services Committee?

General LYONS. The GAO report was released on 6 April.

51. Senator BLUMENTHAL. General Lyons, can you share some of the GAO's preliminary findings?

General LYONS. After 10 months of detailed data exchanges and more than one hundred requests for information, USTRANSCOM is confident GAO had access to all the relevant information in order to conduct an exhaustive review of our work on GHC and broader personal property reform efforts. GAO's report contains two findings: 1) USTRANSCOM did assess cost implications of moving to GHC but may not have accurately calculated some costs because of unanswered questions on counseling and how overseeing contractor performance will be performed. 2) USTRANSCOM has developed performance metrics for some, but not all DP3 activities. GAO makes three recommendations in their report: 1) that DOD develop a process to track data during the first three years of GHC operations to more precisely determine overall Defense Personal Property Program (DP3) manpower requirements; 2) that DOD develop metrics for DP3 activities that fall outside of the GHC (for example, things like Service-retained counseling and processing timelines within the Military Claims Offices); 3) that DOD articulate the linkages between metrics and overall program goals. These recommendations are sensible and are consistent with USTRANSCOM's vision to evolve the program from a series of disparate Service-owned activities into a truly synchronized Departmental program. Moreover, the report confirms many of the issues USTRANSCOM has highlighted to the Department and Congress over the last two years. It is important to note that GAO issued no negative findings or recommendations regarding the single move-manager construct, nor did GAO recommend any changes to the acquisition strategy or overall timeline for GHC award and implementation.

52. Senator BLUMENTHAL. General Lyons, did you agree with GAO's preliminary findings and recommendations?

General LYONS. I agree with GAO's findings. Like all things, though, context is critical—my staff is working with the GAO team to ensure the findings are framed correctly. I do agree with the three recommendations. Although USTRANSCOM concurred with—and will take action on—all recommendations, USTRANSCOM did submit a list of 31 technical issues to correct in GAO's narrative; while none alter GAO's very sensible recommendations, the edits are necessary to ensure an accurate report. At GAO's request, USTRANSCOM also performed a sensitivity review to remove all acquisition sensitive information, thus ensuring a publicly releasable report.

QUESTIONS SUBMITTED BY SENATOR MAZIE K. HIRONO

RUSSIA'S GOALS IN THE PACIFIC

53. Senator HIRONO. General Wolters, in addition to Russia's influence in your area of operations, it has expanded influence into the Pacific as well. What is your assessment of Russia's strategy and goals in the Pacific?

General WOLTERS. Russia seeks to regain its status as a global power by expanding its diplomatic, security, and economic footprint, and challenging United States dominance. Russia's strategy for projecting power in the Pacific region includes increasing bilateral engagements, pursuing defense sales agreements, participating in combined military exercises, and endorsing expanded membership in regional and international organizations, such as the Shanghai Cooperation Organization. As the global coordinator for the Russia Problem Set, USEUCOM's Russia Strategic Initiative works closely with USINDOPACOM to coordinate our strategy across geographic combatant commands.

SEALIFT REQUIREMENTS

54. Senator HIRONO. General Lyons, the Commandant of the Marine Corps has released new planning guidance recognizing the need for distributed operations because of adversary precision strike capabilities. To support these operations, he calls for the use of "inter-theater connectors and commercially available ships and craft that are smaller and less expensive", thereby increasing affordability and allowing acquisition at a greater quantity. How do you envision engaging American carriers who operate ships in the Pacific trades, including U.S. flag ships not enrolled in the Maritime Security Program, to not only support the Commandant's desires but also ensure the TRANSCOM mission has adequate sealift capabilities in the Pacific?

General LYONS. The Maritime Security Program (MSP) and the Voluntary Intermodal Sealift Agreement (VISA) provide DOD with assured access to commercial U.S. sealift ships, mariners, and global intermodal capability that, when augmented with our reserve organic fleets, allow us to project and sustain the force with substantial inter-theater sealift capability. Additionally, American carriers participating in the VISA program provide 300+ non-MSP vessels, which are generally smaller and more uniquely capable to support smaller scale missions, shorter range requirements, and when required, support to distributed operations. Specifically, seven VISA participants operating in the Pacific provide over 1 million combined square foot of capacity and can help support the Geographic Combatant Commands' more localized intra-theater requirements. USTRANSCOM will continue to leverage both MSP and VISA in meeting Combatant Commander requirements as well as to fill inter-theater and intra-theater gaps identified through exercises, wargames, and other planning events. USTRANSCOM will continue to engage industry for their support and solutions through our industry outreach events we conduct throughout each year.

MILITARY MOVES

55. Senator HIRONO. General Lyons, thank you for your attention to DP3 and your efforts in ensuring our military members receive their belongings in a timely manner. Can you provide an update on the fiscal year 2020 NDAA requirements for the business case analysis on the GHC?

General LYONS. The Business Case Analysis (BCA) on GHC was submitted to defense committees as directed on Friday, 17 January 2020. The BCA underscores the value of restructuring the Department of Defense's relationship with industry and implementing a single move-manger construct to generate quality capacity to meet peak demand, improve industry accountability, and enable DOD to properly align responsibility within the Department. The BCA also highlights risks associated with this construct and outlines the steps we have taken—both during the source selection process and in realigning DOD's overall management framework—to mitigate them. We shared the Business Case Analysis with the GAO to assist in their report on the Global Household Goods Contract, and GAO assessed the BCA using its own Assessment Methodology for Economic Analysis. GAO's methodology identifies five key components of an economic analysis: objective and scope; methodology; analysis of effects; transparency; and documentation. GAO assessed that the BCA informed decision-makers and stakeholders, while fully meeting four of the components and partially meeting the fifth (documentation). A summary of GAO's assessment of the BCA is in Appendix II of its report.

AERIAL REFUELING

56. Senator HIRONO. General Lyons, what are the current plans in terms of follow-on tankers based with the Hawaii Air National Guard (i.e., replacement/recapitalization plans for the eight KC–135s); will they be KC–46s or KC–Y/Z?

General LYONS. As the KC–46 is fielded to recapitalize the aging KC–135 and KC–10 fleets, the beddown of those aircraft will be decided using the United States Air Force's Strategic Basing Process, which is led by the Secretary of the Air Force (SECAF). This SECAF-led process accounts for fiscal and operational impacts to the tanker fleet and is designed to be repeatable, defendable, and transparent, to include routine interactions between the SECAF and Congress. The USAF process strives to leverage existing infrastructure to the maximum extent possible, while accounting for global air refueling demand to ensure the posture support Combatant Commander requirements. I appreciate the Secretary's transparent process and the efforts to identify where best to base the KC–46 to meet global demand. Although basing is important, USTRANSCOM recognizes that the KC–46 will be an air refueling asset capable of supporting global missions.

PEARL HARBOR C–17S

57. Senator HIRONO. General Lyons, what are your thoughts on having the C–17s at Joint Base Pearl Harbor-Hickam under operational control of INDOPACOM [United States Indo-Pacific Command] versus TRANSCOM?

General LYONS. The C–17 is a global asset. TRANSCOM's Operational Control (OPCON) of C–17s allows agile global support to all Combatant Commanders. Our current Command to Command agreement with INDOPACOM concerning C–17s allows INDOPACOM to perform their mission and allows TRANSCOM to support global requirements.

58. Senator HIRONO. General Lyons, what are your thoughts on swapping "ownership" of the C–17s at Joint Base Pearl Harbor-Hickam from Active Duty tails to Hawaii Air National Guard tails, similar to the transfer of the C–17s at Elmendorf Air Force Base from Active Duty to Air National Guard that occurred in Alaska?

General LYONS. Assigning C–17s to the 176th Airlift Wing at Joint Base Elmendorf-Richardson (JBER) was the result of a unique situation with force structure changes at JBER. In order to maintain maximum access to limited C–17 resources, I suggest retaining forces at Joint Base Pearl Harbor-Hickam as is.

QUESTIONS SUBMITTED BY SENATOR ELIZABETH WARREN

CORONAVIRUS

59. Senator WARREN. General Wolters, the AOR for EUCOM includes Italy, which reportedly has over 500 cases of the Novel Coronavirus (COVID–19) and 14 deaths as a result. Other countries in the EUCOM AOR with confirmed cases of COVID–19 include Austria, Belgium, Croatia, Finland, France, Germany, Israel, Russia, Spain, Sweden, Switzerland, and the United Kingdom. In your testimony regarding the protection of servicemembers and their families in Europe, you noted that EUCOM has "restricted travel to certain zones and we require all mil-air arrival flights to be screened for the virus" and "in particular, two states inside of Italy." You also noted that that you "anticipate the need may arise in Germany, but that is still to be determined." While the most senior global health security position at the National Security Council (NSC) has been vacant since 2018, on February 27, 2020, Vice President Mike Pence appointed Dr. Deborah L. Birx, the Coordinator of the United States Government Activities to Combat HIV/AIDS and U.S. Special Representative for Global Health Diplomacy, to serve as the White House Coronavirus Response Coordinator. Given the global public health threat posed by COVID–19 and the need for an integrated inter-agency response, how will your commands work with Dr. Birx's office to protect servicemembers and their families residing in the EUCOM AOR?

General WOLTERS. In the time since this question was posed, the health crisis brought about by COVID–19 has gripped the world. USEUCOM coordinates daily with counterparts in the Joint Staff and Office of the Secretary of Defense to synchronize our efforts, preserve the health of the force and families, and supports the whole-of-government response to COVID–19.

60. Senator WARREN. General Lyons and General Wolters, please explain the established procedures that your commands would follow in the event that

servicemembers or their families are found to be infected with the Novel Coronavirus.

General LYONS. Per USTRANSCOM Force Health Protection Guidance for Novel Coronavirus and current CDC recommendations, Servicemembers and their families would be directed to self-isolate and contact their health care provider for further medical care related guidance. In parallel, appropriate public health officials will be contacted to initiate contact tracing and additional notification of exposure if necessary. Servicemembers are also directed to contact their supervisor for formal notification to Command Leadership. Further, the command is actively engaged in social distancing through telework and alternate means of communication in order to reduce the risk of transmission within the organization.

General WOLTERS. USEUCOM has activated its existing pandemic response plan, and on March 7, 2020, we confirmed our first case of COVID–19. Our military treatment networks are fully integrated with host-nation health authorities to share information, evaluate, and treat servicemembers, civilians, and family from across the USEUCOM AOR. Public health teams, throughout the USEUCOM AOR are closely monitoring those infected, those shielded, and those most at risk to determine when they should return to duty and normal activities.

61. Senator WARREN. General Lyons and General Wolters, the most recent unclassified Worldwide Threat Assessment by the Office of the Director of National Intelligence, published in January 2019, observed, "The growing proximity of humans and animals has increased the risk of disease transmission. The number of outbreaks has increased in part because pathogens originally found in animals have spread to human populations." The Director of National Intelligence also assessed that "the United States and the world will remain vulnerable to the next flu pandemic or large-scale outbreak of a contagious disease that could lead to massive rates of death and disability, severely affect the world economy, strain international resources, and increase calls on the United States for support." Have your commands assessed the potential adverse impact to the readiness of U.S. Forces due to the Novel Coronavirus outbreak?

General LYONS. USTRANSCOM working with our Components are closely watching the COVID–19 pandemic development and continue to provide applicable force health protection guidance as the situation unfolds in order to safeguard mission assurance. In addition, USTRANSCOM will continue to support the Geographic Combatant Commanders and the Joint Staff to assist in determining the risk to force presented by the Novel Coronavirus.

General WOLTERS. USEUCOM remains laser-focused on the deterrence and defense of the Euro-Atlantic. We have taken prudent measures to preserve the health of our force and our families. USEUCOM has supported national efforts to combat COVID–19 and stands ready to continue to assist national efforts. While we have prudently modified some activities to prevent the spread of the virus, we continue to sustain our essential deterrence and defense activities, and our conventional and nuclear forces remain ready. Best practices and lessons identified during COVID–19 will continue to strengthen our future posture and readiness to confront the invisible threat of a pandemic.

QUESTIONS SUBMITTED BY SENATOR DOUG JONES

IN FLIGHT RE-FUELING

62. Senator JONES. General Lyons, given the proposed divestment of aerial refuelers, can you imagine a scenario, short of full-scale conflict, that the in air refueling apparatus fails? If so, describe the scenario.

General LYONS. No, I do not see a scenario where the air refueling apparatus fails. While the air refueling mission is the most stressed mission in USTRANSCOM and is my #1 warfighting readiness priority, I have full confidence that the men and women from the Active Duty, Reserve, and Guard components that execute the air refueling mission, will continue to find a way to get the job done. However, additional divestments in legacy air refueling platforms prior to the fielding of an operational taskable KC–46 exacerbates the challenges for this already stressed mission set; additional divestments will result in reduced output to meet global demand until the KC–46 is fully operational. Retaining capacity until the KC–46 is usable is crucial to be able to project the force around the globe in times of crises. Hard choices would be made on supporting the highest priority global missions that would elevate risk and early mobilization of Reserve Forces may be required, but not approach mission failure.

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2021 AND THE FUTURE YEARS DEFENSE PROGRAM

TUESDAY, MARCH 3, 2020

UNITED STATES SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

AIR FORCE POSTURE

The Committee met, pursuant to notice, at 9:30 a.m. in room SH–216, Hart Senate Office Building, Senator Roger F. Wicker, presiding.

Committee Members present: Senators Wicker, Fischer, Cotton, Ernst, Tillis, Sullivan, Perdue, Cramer, McSally, Scott, Blackburn, Hawley, Reed, Shaheen, Gillibrand, Blumenthal, Hirono, Kaine, King, Heinrich, Peters, Manchin, and Jones.

OPENING STATEMENT OF SENATOR ROGER F. WICKER

Senator WICKER. Well, this hearing will come to order.

Senator Inhofe's plane will arrive later this morning, and I am privileged to open the hearing in his behalf today and to recognize the ranking Member, Senator Reed.

The Committee meets today to receive testimony on the posture of the U.S. Air Force and its fiscal year 2021 budget request.

This is Senator Inhofe's statement, which I am happy to read on his behalf.

We welcome Barbara Barrett, Secretary of the Air Force, and General David Goldfein, Chief of Staff of the Air Force. Thank you both for your distinguished service and your continued willingness to serve our great Nation.

The National Defense Strategy directs our Nation's military to prepare for the return of great power competition. This means we must be prepared to deter and, if necessary, defeat our near-peer adversaries like Russia and China.

In order for the Air Force to achieve that goal, it must be properly manned, trained, and equipped. At the end of the Obama administration, the Air Force was at a historic low in readiness and size. Less than 10 percent of combat squadrons were ready to deploy and even less were prepared for a peer fight.

We commend the progress you have made in rebuilding readiness, but more needs to be done. A high state of readiness is crucial for our Nation to demonstrate peace through strength.

While our force has suffered from being ill-prepared, our adversaries moved out and recapitalized both their conventional and nuclear forces with alarming speed. China and Russia present a credible threat to America and our allies. In fact, in some areas they have even surpassed us.

You both have testified that the Air Force is too small and too old to do what the Nation asks. We agree with you and the many independent studies that show the Air Force needs to grow and modernize. But, we are concerned that your current budget is inadequate to allow you to reach the requirement of 386 squadrons.

Given the need to grow, there is concern that this year's budget request takes a risk by divesting the aircraft we need today in the hopes of buying modern capability in the future. Historically, that approach has failed to achieve the desired results.

We understand that much of those decisions were caused by a flat budget that falls well short of the 3 to 5 percent growth recommended by the National Defense Strategy Commission report. In fact, it does not even keep up with inflation.

Any successful modernization strategy needs to focus on results and meeting the needs of tomorrow's fight, but should also maintain forces capable of deterring and defeating an adversary today.

We look forward to working with you to ensure that we meet the needs of today's warfighters while modernizing to ensure we regain our advantages for the future.

Senator Reed?

STATEMENT OF SENATOR JACK REED

Senator REED. Well, thank you very much, Mr. Chairman. Let me join you in welcome Secretary Barrett and General Goldfein to the Committee this morning to testify on the plans and programs of the Department of the Air Force in our review of the fiscal year 2021 President's Budget request. We are grateful certainly to all the men and women of the Air Force for their service and to their families for their continued support.

I want to particularly note that this will probably be General Goldfein's last appearance before the Committee as Air Force Chief of Staff. I want to thank you, General Goldfein, for your many years of distinguished and dedicated service to the men and women of the United States Air Force and to this Nation. Thank you very much, sir.

In preparing this budget request, the Air Force faced difficult decisions in balancing the need to modernize and keep the technological advantage over near-peer competitors and the need to support ongoing operations and sustain today's readiness. This budget request tries to maintain that balance by increasing funding to address readiness concerns and munitions shortfalls but also funding technologies for the future fight and modernization of our strategic deterrent capability. I am interested in the witnesses' views on what the most difficult decisions were. I also understand that the Secretary of Defense has asked the military departments to undertake a review to find resources, and I would like to know the status of that review.

I would also note that because significant levels of funding are being transferred to build the wall on the southern border, some

Air Force modernization efforts will not proceed as planned, making it harder to find savings to apply to high priority programs and activities. I am interested in hearing if the Air Force has a plan to mitigate this issue.

This year, the Air Force is proposing to retire and realign a number of aircraft systems, presumably to free up resources for other programs. The budget request would reduce or alter force structure for A–10's, B–1's, C130's, KC–135's, KC–10's, Global Hawks, and Reapers. Any Air Force proposal deserves our careful consideration, but we must consider it against the recent history of abrupt Air Force changes of direction on such programs as A–10, U–2, Global Hawk, JSTARS, Compass Call, AWACS, light attack aircraft, and C–27 airlift aircraft, several of which I will admit were reversed by congressional action. I hope the witnesses will provide the Committee with their reasoning for these retirements and realignments and assurances that decisions are well thought out before disruptions to the force structure begin.

Perhaps most troubling to me among the force structure adjustments is the planned reductions in the air refueling tanker force in the near term. The Commander of TRANSCOM recently testified before this Committee that the scarcity of available tankers has sorely taxed his command's ability to keep up with the peacetime demand, let alone manage support for major contingency operations.

As we all know, while the KC–46 is being accepted by the Air Force and taking air crews, it is only operating with significant restrictions. Coupling that with the early retirement of KC–135's and KC–10's creates significant risk in our refueling capability. I want to hear why you have proposed this in the face of TRANSCOM's significant concerns.

I am also interested in hearing about your continuing effort to improve the shortfalls within the remotely-piloted aircraft operator community and how the Air Force has addressed shortfalls within the larger pilot community and maintenance personnel. Certainly, if the Air Force were to retire a large number of Global Hawks and Reapers, that action would help the shortfall by reducing demand for pilots. However, I am interested to know whether you have had a reduction in demand for Reaper support from the combatant commanders and how their input has affected your decision.

Two years ago, the Air Force budget request proposed to truncate the Joint Surveillance and Target Attack Radar System, or JSTARS, modernization program and replace it with a combination of other systems, including unmanned systems and overhead sensors. That program has since been named the Advanced Battle Management System, or ABMS. I look forward to receiving an update on progress of the ABMS system.

Again, there are many issues to cover, and I thank both Secretary Barrett and General Goldfein for being here today and look forward to your responses.

Thank you.

Senator WICKER. Thank you very much, Senator Reed.

Secretary Barrett and General Goldfein, you submitted a joint statement, which will be entered into the record at this point.

Would each of you like to make a brief 5-minute opening statement? Secretary Barrett?

STATEMENT OF THE HONORABLE BARBARA M. BARRETT, SECRETARY OF THE AIR FORCE

Secretary BARRETT. Thank you very much. Chairman Wicker, Ranking Member Reed, Members of the Committee, thank you for inviting us to appear before you today.

I also would like to acknowledge and thank David Goldfein whose final appearance before this Committee for this purpose will be today. I would like to thank him for the incomparable service that he has provided to the United States Air Force, making the Air Force better and our Nation better. It has been a great privilege to serve with General Goldfein.

The international security environment changes unpredictably. China and Russia challenge American capabilities with new technologies and new systems. Iran and North Korea threaten regional and global stability, while violent extremism remains a global menace.

The National Defense Strategy calls for the Air Force as a critical component of a joint force to deter and, if needed, defeat these threats. This fiscal year 2021 budget request sets the course for the Air Force we need to accomplish these aims.

Specifically, the United States Air Force invests in a future force that allows us to connect the joint force, dominate space, generate combat power, and conduct logistics under attack. We will continue to present ready forces to combatant commanders as we defend the Homeland, ensure strategic deterrence, and counter violent extremism.

Finally, we will strengthen the foundation of our forces, our airmen, as we develop and care for our people and their families. This budget submission shifts force design to create irreversible momentum toward achieving the mission of the NDS [National Defense Strategy] while growing strong and resilient leaders and families.

The top policy priority for the department is the successful launch of the United States Space Force. The space domain is integral to the joint team success in all warfighting domains. The Department of the Air Force supports a lean, agile service to preserve access to space for America and our allies while deterring and, if necessary, defeating malicious actions.

Our most important investment is in connecting the joint force. We are developing the technologies to connect every sensor, every shooter, and every echelon of command to enable seamless, joint, all-domain operations. This battle network is essential to defeating current and future threats.

We are also directing pivotal resources to recruit and retain the best people our Nation has to offer. We are an inclusive and diverse force and are modernizing our promotion system while investing in the professional development of airmen.

The Air Force is expanding ongoing efforts to support and care for families. We are tackling privatized housing and PFAS challenges. Along with our sister services, we encourage State reciprocity for occupational licensing for spouses and for quality schools for our children. We are investing in professionally de-

signed and advised programs to reduce suicides and sexual assaults.

To fund the Air Force we need, we must divest some aging legacy systems. This budget retires limited numbers of aircraft, consolidating resources to increase readiness in remaining aircraft, or invest in recapitalization and modernization efforts.

We thank the Committee and the entire Congress for fully funding the recovery efforts to rebuild Tindall and Offut Air Force bases.

We will seek additional support as our installations and personnel assist with the ongoing novel coronavirus quarantine and responsive efforts.

With your continued support, America's Air Force stands ready to deter, defend, and defeat any adversary.

We look forward to your questions.

Senator WICKER. Thank you very much, Madam Secretary.

General Goldfein?

STATEMENT OF GENERAL DAVID L. GOLDFEIN, USAF, CHIEF OF STAFF OF THE AIR FORCE

General GOLDFEIN. Chairman Wicker, Ranking Member Reed, distinguished Members of the Committee, it is an honor to present my last budget submission for the first time with Secretary Barbara Barrett, the 25th Secretary of the Air Force. She is an inspiring leader who cares deeply about airmen and their families, and this hearing allows me the opportunity to publicly thank her on behalf of all active, Guard, Reserve, and civilian airmen who stand the watch, own the high ground, and follow her lead. Thank you, ma'am.

So my bottom line up front. This budget, building on the last three, offers the most aggressive package of strategic trades we have made as a service in over 2 decades to achieve complete alignment with the National Defense Strategy and secure our Nation's military superiority over the next decade.

Secretary Esper's guidance for this budget build was crystal clear. Build an Air Force that can compete, deter, and win shoulder to shoulder with our joint teammates and our allies and partners against a nuclear peer in an era of great power competition. This budget is designed to achieve this objective and we are asking for your support to make the tough but necessary trades we will discuss today.

In numerous war games against our best assessment of the threat in 2030 and beyond, as Secretary Barrett stated, we found that investment in four key areas produced the Air Force needed to prevail.

First, this budget connects the joint force in ways we are not today connected in order to truly fight as a joint team. Under the leadership of our Chairman, General Mark Milley, the Joint Chiefs and the combatant commanders are fully engaged in developing a new doctrine of warfare called joint all-domain operations. Under this warfighting construct, the Air Force is the designated lead service to connect platforms, sensors, and weapons from all domains, all services, and our allies and partners so we can truly operate at the speed of relevance. We call it joint all-domain com-

mand and control, or JADC2 for short, and we are moving out quickly with advanced battle management, sir, as the pathfinder.

Every 4 months, we host a demonstration and link joint capabilities that are not currently connected to advanced joint all-domain operations to the next level, and I look forward to describing what we have achieved to date and where we are headed during questioning.

Second, we must dominate space, and while you will have a follow-on hearing in April with Chief Jay Raymond and Secretary Barrett focused on the Space Force and Department of the Air Force investments, I want you to know that it is my top priority to make Chief Raymond and his new service successful.

Our third area of focus is generating combat power beginning with our nuclear enterprise. This budget moves us forward to recapitalize our two legs of the triad and the critical nuclear command and control that ties it all together.

Fourth, this budget invests in a new way of approaching how we keep our joint team deployed and sustained in contested combat environments. We must assume our logistics enterprise will be under attack.

The foundation of this budget submission is the greatest treasure in our Nation's arsenal, our airmen. We look forward to working with this Committee to ensure that we keep the faith with the airmen that will defend the Nation, and we support their families entrusted to our care.

As this Committee is aware and was stated, the 2021 top line is relatively flat from last year, well short, as the chairman stated, of the 3 to 5 percent growth required to properly support the National Defense Strategy. In a flat budget environment, if a service is to move forward, it must do two things. It must make better use of what it has by connecting all platforms, sensors, and weapons in a battlefield network, JADC2, and it must find internal savings to pay for new capabilities.

So we held our own night court and identified $21 billion across the FYDP by retiring the oldest of our legacy weapon systems that are either not survivable or do not contribute significantly to the 2030 peer fight, and not one of these trades is easy. Every weapon system we are asking to retire has performed well in the current fight, but many are at the end of their service life or have no future in a nuclear peer fight. This is today's hard reality, and not surprisingly, of the services, the Air Force has the largest classified portfolio of investment. This makes the story harder to tell since most of what we are retiring is unclassified and visible, while many of our game-changing investments are classified.

I want to thank many of you for taking our classified briefing and offer it to any of you or your staff between now and end game. When you see what we are trading for, our budget submission will make more sense.

If we are to achieve truly meaningful gains for our Nation's security through implementing the NDS in a flat budget environment, we must work together on these hard choices.

Chairman, I am honored to be the 21st Chief of Staff of the Air Force, and if we go to war against a nuclear peer, I am 100 percent confident that we have what we will need to win. I can say that

because of decisions made by my predecessors, men like John Jumper and Mike Ryan, such as the lead time required for building an Air Force. I believe one of my jobs is to ensure that when Chief 24 sits in front of this Committee in 2030, that Chief will be able to state with equal confidence that our Nation's Air Force has what it needs to win. With your support, we can achieve this goal.

Secretary Barrett and I look forward to your questions.

[The prepared statement of Secretary Barrett and General Goldfein follows:]

JOINT PREPARED STATEMENT BY THE HONORABLE BARBARA BARRETT AND GENERAL DAVID L. GOLDFEIN

AIR FORCE DESIGN FOR GREAT POWER COMPETITION

The international security environment is rapidly changing and becoming increasingly complex. China and Russia present real and growing threats to the national security of the United States and our allies. They continue to employ aggressive tactics to coerce neighbors, suppress dissent, and undermine freedom. Iran and North Korea seek outsized regional influence through violent extremism or the pursuit of nuclear weapons. These and other nations are pursuing capabilities specifically designed to limit or negate the advantages of the United States and our allies.

The 2018 National Defense Strategy (NDS) reoriented United States defense strategy to focus primarily on great power competition with China and Russia. This shift profoundly changes the conversation on United States defense strategy, plans, and programs. We are developing new operational concepts to focus on more fully integrating joint military capabilities across warfighting domains. We will employ U.S. military forces in more distributed ways as we build technologies to connect those forces into advanced battle networks.

The United States Air Force has been working to align with the NDS for several years. In 2018, we needed Congress' help to recover from the damaging effects of sequestration and halt declining readiness across the force. The NDS and Nuclear Posture Review (NPR) were also released in 2018, and we began to align future conventional and nuclear forces design with the guidance in these documents.

In 2019, we continued readiness recovery, making significant gains across multiple aircraft and spacecraft fleets and mission sets. The Air Force also worked with Congress to make essential decisions on two important programs—the Joint Surveillance Target Attack Radar System (JSTARS) and the Overhead Persistent Infrared (OPIR) satellite system—that set the tone for future modernization. The plan for recapitalizing these platforms had to change as they would not have survived in future conflict given the emerging threats. We moved away from developing large, vulnerable aircraft and satellite systems, and instead pursued the Advanced Battle Management System (ABMS) and Next-Generation OPIR. These systems are essential to robust Joint All-Domain Command and Control (JADC2) and the networked future force.

The Air Force's 2020 budget submission was our first informed by and focused directly on 2018 National Defense Strategy implementation. The demands this strategy placed on the Air Force drove Congress to ask: what forces are required to successfully execute the NDS? The Air Force We Need study assessed the baseline capacity required to meet NDS objectives, assuming current capabilities and concepts, at medium risk based on Combatant Commander Operational Plans and Timelines. As we established this baseline, we also made key organizational changes to drive toward future capabilities and concepts. Significantly, we helped launch the U.S. Space Force which now stands as an equal branch of the military.

In preparation for the 2021 submission, the Department of the Air Force conducted an exhaustive review of our portfolios and made hard decisions to better align with the NDS. Some choices required investments in the future at the expense of legacy platforms. In doing so, we will accept calculated short-term risk to pursue the Secretary of Defense's goal of irreversible momentum toward NDS implementation. We conducted multiple, complex wargame scenarios to assess alternative warfighting approaches against a peer adversary. We shared the results with Congress over the past year and talked openly about the implications for our Air Force. This 2021 budget reflects current analysis on the Air Force We Need for the future.

To achieve the objectives of the NDS, the United States Air Force will pursue an integrated design and field modernized forces that can:

- Connect the Joint Force so we can more seamlessly integrate as a Joint team,

- Dominate Space through support of our sister service, the United States Space Force,
- Generate Combat Power to blunt any attack against the U.S. or our allies, and
- Conduct Logistics Under Attack to sustain high-tempo operations as long as needed.

In each of these areas, we will work with Congress and our sister services, industry, academia, allies, and partners to develop and field innovative solutions. While focusing on the four key investment areas above, we will also continue to provide Combatant Commanders with Ready Forces to conduct Strategic Deterrence, Homeland Defense, and Counter Violent Extremism.

Finally, Developing and Caring For Our People and Their Families is an enduring imperative. American parents have entrusted their sons and daughters to our care. It is our sacred duty to ensure they are properly organized, trained, equipped, and courageously led. It is also our responsibility to take care of their families. With the enduring support of Congress, we will continue to provide them the resources and support they deserve.

UNITED STATES AIR FORCE DESIGN PRIORITIES

Connect the Joint Force

Modern warfare is increasingly all-domain. Conflicts are not limited to the air or space or land or sea or cyber. Rather, they involve engagement in and effects across many or all domains, simultaneously. To prevail, the future joint force must be prepared to employ Joint All-Domain Operations (JADO), where individual military activities are more than synchronized or deconflicted. Instead, activities in one domain enhance the effectiveness of those in other domains and compensate for vulnerabilities.

Joint All Domain Operations as a new Joint Warfighting Concept creates simultaneous dilemmas for adversary forces, overwhelming them with too many threats to counter successfully. The Air Force will generate windows of superiority in air and cyberspace, with the joint force converging on the most important targets at speed and scale. When the Air Force employs in concert with Army, Navy, Marine Corps, and Space Force capabilities, opponents will have to defend their forces across all domains, all the time.

The Air Force will enable JADO by helping connect all forces into a cohesive battle network in ways they are not connected today. For example, our fifth-generation aircraft cannot easily share data with some legacy fighters, sensors on many Navy ships cannot cue Army Air Defense Artillery batteries, and soldiers and marines in battle cannot always access real-time video feeds from our international partners. The key to this effort is to build on our Advanced Battle Management System investments. ABMS is the foundation of true Joint All-Domain Command and Control which enables convergence of joint combat power. JADC2 connects sensors, systems, and weapons from different services and nations to allow the seamless sharing of information to all friendly forces. Our fiscal year 2021 budget includes funding to develop the network, connectivity, and infrastructure for this critical capability while working closely with joint, interagency, and international partners.

The Air Force is leading efforts to develop JADC2, and early experiments are already yielding positive results. A recent demonstration in Florida connected Air Force aircraft, Space Force sensors, Navy surface vessels, and Army Air Defense Artillery units to successfully defeat a simulated cruise missile attack. This joint team achieved 26 of 28 connectivity objectives and a series of firsts in this initial effort to effectively employ JADC2 in an operational setting directly supporting the Commander of USNORTHCOM/NORAD in defense of the Homeland. This fiscal year 2021 budget accelerates JADC2 experimentation, and the next demonstration is planned for April 2020.

To achieve true JADC2, this budget invests in digital engineering and common data architecture to connect our Air Forces with Army, Navy, Marine Corps, Space Force, and international teammates. Success in modern warfare requires a digital infrastructure with more open data systems than we have today. As part of these efforts, we will continue investments in the Digital Air Force initiative as we transition from in-house communications networks to an Enterprise Information Technology as a Service framework, using best practices of industry. This allows airmen to focus more on warfighting and less on maintenance of our networks. The fiscal year 2021 budget expands investments in technology solutions that streamline non-essential tasks for our airmen.

Dominate Space: The United States Space Force

Maintaining a position of advantage in space is essential to winning in future conflicts. The President formally declared space a warfighting domain in March 2018 with the announcement of the new National Space Strategy. On 20 December 2019, the President and Congress established the United States Space Force as the newest branch of the Armed Forces, an historic milestone for our Nation. The standup of the U.S. Space Force is a critical priority for the Department of the Air Force. The Air Force will aggressively support our sister service as they develop the capabilities, warfighting doctrine, and expertise needed to outpace future threats.

While the Space Force will eventually drive budgets, personnel, and operations of our space capabilities, the Air Force retains many systems and personnel in the near term. We will work with our joint teammates to support the transition of space systems and the professionals who employ them.

Generate Combat Power

To prevail in future conflict, the joint force must generate sufficient combat power to blunt an attack against the U.S. or its allies. The Air Force will deliver rapid, lethal warfighting capability to combatant commanders. Air forces are expected to arrive first because we fly into theater and are then called to halt enemy activity while follow-on joint and allied forces are brought to bear. This budget continues critical recapitalization across multiple missions to include the B–21, KC–46, F–35, F–15EX, HH–60W, and T–7 fleets along with the critical munitions and sensor suites required for Joint All-Domain Operations.

In addition, this budget modernizes existing platforms that will fly well into the next two decades. Examples include a modernized B–52 with new engines and upgraded radar technology and munitions delivery options; updated F–16s with advanced fire control radars and datalinks; and the venerable A–10 which will provide close air support to ground forces well into the 2030s. Connecting these platforms, sensors, and weapons through ABMS and JADC2 will maintain their viability and combat lethality.

The fighter force is one example of how this budget invests in a new way of generating combat power. The Next-Generation Air Dominance (NGAD) program is maturing novel technologies for the networked, multi-domain joint force. NGAD will integrate legacy and future platforms with a mix of manned, unmanned, and optionally-manned aircraft.

This budget continues to fund Air Force investments in the intelligence, surveillance, and reconnaissance (ISR) platforms, systems, and capabilities that enable current joint force operations. At the same time, it lays the foundation for an architecture that will eventually link sensors, shooters, and decision makers. The Air Force seeks to balance both near- and long-term risk by right-sizing the ISR available to dominate today's fight, while building the ISR enterprise necessary to provide decision superiority to the joint force in the future.

This budget takes full advantage of breakthroughs in digital design technology by investing in three critical areas: digital engineering, agile software development, and open systems architectures. Recent application of digital design technology in the T–7 program resulted in an 80 percent reduction in assembly hours versus conventional aircraft design and manufacturing methods. This engagement with industry will allow us to develop smaller fleets of new aircraft much faster with rapid technological innovation and adaptation. It is not good enough to procure better airplanes and satellites; rather, we must design and build systems differently today.

This budget submission pursues advanced technologies and incorporates them into our weapons and platforms. These technologies include hypersonic, directed energy, autonomy, cyber, propulsion, and mass weapon payload systems. These future capabilities will complement existing systems to allow us to achieve effects against enemy targets, kinetically or non-kinetically, in all domains, at speed and scale previously unseen.

Even as we generate combat power in new ways, humans will still operate in many of our combat aircraft. This will place them in harm's way and potentially require their rescue from hostile areas. Recovering isolated personnel remains a no-fail mission, so we are continuing our efforts to modernize our rescue aircraft. In 2019, we began testing our first HH–60W aircraft. This budget continues acquisitions as we recapitalize the helicopter fleet. In 2021, we will retire the first 27 legacy HH–60 aircraft.

Conduct Logistics Under Attack

Since the end of World War II, the United States has relied on established, fully-supplied, and well-defended bases. Today, American forces are extremely efficient in deploying large numbers of people, materiel, and weapons systems across the globe

to fight from a small number of forward operating bases with well-developed infrastructure.

Our assessment, in line with the NDS, indicates that future battlefields will not allow us to fight this way, so we must be prepared to move to win. The Air Force will invest in forward-based stocks to enable forces to rapidly deploy to distributed forward locations. These locations will vary in size, setup, and security, so we must be postured to protect our forces and make it difficult for enemies to target them.

Logistics will need to be lean and agile, allowing us to rapidly move people and materiel to and within a theater. As we reinvent logistics, the Air Force is investing in future transportation platforms and autonomous capabilities. We will continue to develop and field future vertical lift to move smaller amounts of equipment quickly to many more places than in the past. In these efforts, we are closely engaged with our sister services and industry to reimagine what is possible. These capabilities will be integrated with our battle networks, so we are taking steps to reinforce supply chain security with the components, subcomponents, materials, and software incorporated into defense systems and equipment.

In addition to developing future capabilities, we will continue investing in our existing and modernized mobility aircraft fleets. The joint force will depend upon the KC–46 to provide force extension and power projection. The Air Force continues to work closely with the contractor to reach full mission-capable status. This budget retires sixteen KC–10s and thirteen KC–135s in fiscal year 2021 while maintaining the required 479 tanker aircraft. We are also looking closely at the right mix between modernized and legacy tactical airlift platforms.

Ready Forces

The United States Air Force fields capabilities the Nation relies upon every day. Airmen are always on duty: standing the watch in missile launch facilities; conducting intelligence, surveillance, and reconnaissance missions; patrolling and defending the cyber domain; delivering nuclear command, control, and communications capabilities; and guarding our skies. As we modernize to counter growing threats, we must also ensure that forces remain ready and able to offer options to our Nation's leaders.

The demand for Air Force capabilities across the globe remains high. Over 28,000 airmen deployed worldwide last year as part of the joint team to deliver America's air, space, and cyber power. In 2019, our servicemembers flew more than 75,000 strike sorties and employed more than 11,000 weapons in Iraq, Syria, and Afghanistan. Mobility forces conducted more than 27,000 airlift and refueling sorties across the United States Central Command area of responsibility, offloading more than 590 million pounds of fuel and moving more than 226 million pounds of cargo. Air Force personnel deployed in support of NATO collective defense missions in Poland and the Baltic States, filled continuous bomber rotations in the United States Central Command and United States Indo-Pacific Command areas of responsibility, and brought humanitarian assistance to millions of people in need around the world.

Despite this operations tempo, a major success story over the past several years has been the improved readiness across our force following the harmful effects of sequestration. We have increased mission capable rates across our pacing squadrons—our most in-demand units—and are continuing our efforts across all fleets. This budget requests $17 billion in sustainment and support for weapons systems and $9 billion for 1.2 million flying hours to train and hone combat proficiency.

The Air Force is also expanding investment into harnessing the power of data and the efficiencies it brings to operations. Predictive maintenance initiatives have yielded faster and cheaper maintenance for our C–5 and KC–135 fleets, and this budget expands the initiative to other aircraft. We are digitizing data from years of maintaining legacy platforms, such as the B–52, to preserve and extend some of our oldest aircraft.

In 2018, we faced major readiness deficits which negatively impacted the morale of our airmen. With the support of Congress, we have made major improvements to readiness over the past three budget years and are now more ready than at any time in the last decade. The momentum is undeniable.

Strategic Deterrence

Nuclear deterrence is the highest priority mission of the Department of Defense—our deterrent underwrites every U.S. military operation around the world and is the foundation and backstop of our national defense. As the steward of two-thirds of the nuclear triad, the Air Force needs the continued support of Congress to maintain the Nation's credible and effective strategic deterrent. This need is even more critical today, due to the on-going evolution and fielding of other countries' strategic nu-

clear capabilities, including hypersonic weapons, which continue to challenge U.S. and allied security.

The Air Force is making significant investments in modernization and recapitalization programs that address both delivery platforms and weapons. Modernized versions of existing weapons, such as guided bombs, and modern replacements for existing capabilities, such as the Long-Range Standoff Weapon, will be joined by new technologies that provide advanced capabilities to the joint force. These systems are being fielded on a tight schedule that depends on stable requirements and resources to ensure our national strategic deterrence mission does not fail.

The Minuteman Intercontinental Ballistic Missile weapon system has served as the bedrock of nuclear deterrence since 1962. However, this system's service life can no longer be extended. The Ground-Based Strategic Deterrent developed in this budget represents a modern, sustainable design with the capabilities to ensure the Nation maintains its most responsive leg of the nuclear Triad well into the 21st Century.

Our nuclear-capable bomber force represents the most flexible leg of the nuclear triad. The Air Force's future bomber, the B–21 Raider, is proceeding on schedule and on cost, and the initial test aircraft is progressing toward first flight. The Raider will be the core of our future nuclear-capable bomber fleet, and we are committed to fully funding the program in its current development phase to maintain our aggressive and critical timeline for bringing it online. Combined with the Long Range Standoff Weapon, investments in this budget for B–21 development and B–52 modernization will maintain America's capability to deter adversary aggression, assure allies, and project combat power across the full spectrum of conflict.

To modernize the Nation's strategic and bomber forces, we propose an acceptable reduction in near-term capacity to increase overall capability. The B–1 fleet is nearing the end of its service life. For a period of time last year, only 12 of the 55 aircraft in the B–1 fleet were fully mission-capable. We propose retiring 17 B–1 aircraft in fiscal year 2021 to invest in the most mission-capable bombers.

2020 is the Year of Integrated Base Defense, focusing on training and equipping our airmen to defend bases as our primary power projection platforms as we guard our Nation's critical installations and infrastructure. This fiscal year 2021 budget continues developing and deploying the technology to fully integrate the command, control, and communications capabilities essential to effective base defense.

Congress has recognized the importance of modernizing U.S. nuclear forces after decades of deferred recapitalization and has fully funded these programs. We request continued support to modernize and sustain the Nation's nuclear deterrent.

Homeland Defense

Our ready forces that support the Homeland defense mission include radars and early warning systems, alert aircraft and aircrew, and supporting infrastructure. This fiscal year 2021 budget invests across all these areas. The centerpiece of the overall Department of Defense budget, Joint All-Domain Command and Control, is the most essential investment we can make to enable the Commander USNORTHCOM/NORAD to have the situational awareness and the ability to bring joint all-domain capabilities to bear. We continue to partner with this team daily on the number one mission in the NDS: defense of the Homeland.

Defense of the Homeland includes defeating malicious threats online, where we must counter direct aggression as well as indirect sources of influence. Air Force cyber warriors are constantly at work, under the newly-reactivated 16th Air Force, to "Defend Forward" with actions to deter adverse action and defend friendly networks and information. We are also closely examining all friendly systems and capabilities to identify and mitigate potential cyber vulnerabilities and reduce the potential for adversary exploitation.

To successfully execute the Homeland Defense mission, the Air Force will continue upgrading limited numbers of existing aircraft to include modernizing the radars in some F–16s. These updated legacy aircraft will be complemented by new-build F–15EX aircraft which are significantly more capable and cost-effective than the F–15Cs they will replace, aircraft already many years past their designed specifications and no longer candidates for service life extensions. The F–15EX will help eliminate the gap between the fighter aircraft we have and the fighter aircraft we need while leveraging other Nations' investments in updating the F–15 program. Ultimately, the Air Force must field a robust fighter force, anchored by the F–35, able to detect and defeat threats across a wide spectrum. Homeland defense requires a mix of 4th- and 5th-generation capabilities, and we are investing to achieve that future force.

Engagement across the globe also contributes to the Homeland Defense mission. As we build a network of partners, allies, and emerging security partners, we enlist

help in deterring aggression and containing threats. We will continue to provide training and assistance to foreign nations through military equipment sales, training programs, and personnel exchanges. The Air Force remains committed to collaboration with key allies and partners, and we have accelerated and expanded combined participation in air and space operations, exercises, wargames, and education.

Residing at the intersection between the United States Homeland and two critical regions—Indo-Pacific and Europe—the Arctic is an increasingly vital region for United States national security interests. The Air Force has more missions and investments in this region than any other U.S. military service. We are a cornerstone of the Nation's defense in this region with installations positioned across Alaska, Canada, and Greenland and composed of large air bases, training complexes, and a constellation of more than 50 early-warning radars and missile defense facilities. We are continuing our investments to include the upcoming beddown of the F–35 at Eielson AFB, placing more 5th-generation aircraft in Alaska than anywhere else in the world. In addition to modernizing the world-class Joint Pacific Range Complex, we continue to build interoperability with Arctic allies and partners. Sustained future investment in modernized missile defense, enhanced space capabilities, and improved domain awareness will ensure the Joint Force can respond to contingencies in, and from, the Arctic.

Counter Violent Extremism

Countering violent extremist organizations (VEO) is a critical and complex mission that requires interagency and international cooperation. The military is one source of power available for this task, and the Air Force is at the leading edge of these efforts. Airmen of Air Force Special Operations Command (AFSOC) are engaged worldwide to counter VEOs. They are coordinating airstrikes, conducting direct action missions, employing munitions, and providing persistent armed overwatch and intelligence, surveillance, and reconnaissance capabilities.

We are also working to build partner capacity and help foreign forces combat VEOs in their own homelands. The Air Force, working with the Office of the Secretary of Defense, has split the Light Attack experiment into two separate but linked efforts. First, building on the fiscal year 2019 approval to procure several AT–6 and A–29 aircraft, we are establishing two experimental detachments at Hurlburt Field and Nellis AFB. Using these aircraft as prototypes, we will continue development and fielding of a coalition-friendly battle network that increases interoperability and allied and partner contributions. Second, we will partner with U.S. Special Operations Command through our air component, AFSOC, to build requirements and rapidly field armed overwatch aircraft to support ongoing and future counter-VEO and counter-terrorism missions.

These two efforts are complementary as the Light Attack experiment feeds technology and tactics, techniques, and procedures for this fight while we improve support for our Special Operations Forces engaged in combat operations. We appreciate the support of Congress as we continue this important work.

Developing Our Airmen

Our platforms and systems may be the best in the world, but our most valuable assets are our people. With the support of Congress, we have grown our force over the last three budget years by 7,820 airmen on the way to an active force of 333,700 for a total force of 699,013 authorized end strength to include Active Duty, Guard, Reserve, and civilian airmen. Our fiscal year 2021 budget adds 1,500 additional personnel in F–35 and refueling operations, maintenance, and combat support.

Additionally, we are currently developing detailed plans to transfer more than 6,000 personnel into the U.S. Space Force in fiscal year 2021. We will continue developing this cadre of Space professionals across more than 15 career fields who will eventually form the core of a Space Force that will protect U.S. interests in space well into the future. During the transition, members eligible for transfer will be provided options, depending on their specialty code, their preferences, and Service needs. We also anticipate that airmen will continue to provide support to the Space Force across numerous other functions, to include legal, chaplain, and medical career fields.

The Air Force is continuing our efforts to develop the joint leaders essential to our future force. In order to develop and promote the right kind of leaders, we have established criteria by which we assess performance and potential. Underpinned by a foundation of impeccable character, we ask of our leaders:

- How well do they accomplish their mission?
- How well do they lead their airmen or space professionals?
- How do they manage the resources they have been assigned?
- How have they improved their unit?

We have also reformed our promotion boards, expanding the Line category into six competitive sub-categories in order to better match personnel with requirements. Furthermore, we are eliminating below the primary zone promotions to better align the experience and rank of our officer corps with those of our sister services while allowing our leaders more time to develop the excellence and expertise they will need.

Diverse, resilient, and ready airmen are the bedrock of the Department's readiness and lethality. We are continuing efforts to increase representation of diverse servicemembers through a number of initiatives. These include the Rated Diversity Improvement Strategy, the Air Force Junior ROTC Flight Academy, recruiting efforts at Historically Black Colleges and Universities, and the Aviation-Inspiration-Motivation (AIM) High Outreach Program which engages young females through interaction with Air and Space Force role models. Increasing the overall diversity of our force is a warfighting imperative, and we are committed to fielding and developing a diverse Air Force.

Caring for Our People and Their Families

While we develop our people, we must also care for them and their families. The Air Force, along with our sister services, continues to address numerous challenges. These include suicide and sexual assault, aircrew retention, personnel retraining, spouse employment opportunities, quality of schools and Privatized Military Housing, and PFAS issues affecting our installations and the communities that host them.

Suicide and sexual assault continue to be insidious threats to our force. Suicide devastates families and units, and it affects the entire Service. Sexual assault is a crime against a fellow airman, one which is unacceptable and unthinkable. We will continue to devote resources and invest in programs, such as the True North initiative, which are designed to increase resiliency and connectedness among our airmen. We will reinforce a culture of dignity and respect where our people feel protected, valued, and supported.

Shortages across our aircrew career fields persist as threats to readiness. We have seen signs of progress in addressing these complex and critical issues, but much work remains. We must increase production, absorption, and retention of aircrew and their families. The Air Force is employing lessons learned from Pilot Training Next, now in its 3rd major iteration, to streamline undergraduate pilot, combat systems officer, and air battle manager training programs.

Absorbing new aircrew into mission-ready units and providing necessary experience remains a challenge. Total Force partnerships help us place newly-trained members in highly-experienced units as we strive to balance experience levels across the force. These efforts require retaining aircrew, especially pilots, in higher numbers than in recent years. We are expanding the Career Intermission Program to provide flexibility and choice to our aircrews as they reach critical career decision points.

Our investments in this budget will involve some mission changes for some units, to include our Reserve and Air National Guard forces. Aircraft type or mission changes will require new skills, and we are committed to retaining and retraining personnel as we adjust capabilities. We are expanding efforts to ease transitions from Active to Reserve and Guard components, allowing increased flexibility along a continuum of service. Even with changing aircraft or missions, there are no plans to inactivate any wings at this time.

Airmen could not make the necessary sacrifices to serve without the support of their families, and the Air Force is making investments to address crucial quality of life concerns. Alongside our sister services, we will continue to advocate for reciprocal professional licensing for spouses and improved quality of schools. We have recently implemented the Support of Military Families initiative, which will explicitly consider such issues when the Department of the Air Force makes basing decisions.

A vital part of caring for our airmen and their families is providing a safe, secure environment for them to live and work. We are addressing serious challenges with Military Privatized Housing and have directed considerable resources toward correcting substandard living conditions. This budget increases manning at the base level, providing personnel required for proper oversight of our Project Owners and advocacy for our residents. We will also continue to address the root causes of mold or moisture issues in many of our housing units. Along with our sister services, we are preparing to institute a Privatized Housing Tenants' Bill of Rights to further empower residents. We are committed to regaining the trust of families who have been let down, and we will continue this work for as long as it takes to get it right.

PFAS is a national issue that requires national solutions. The Department has already spent $447.5 million identifying, investigating, and responding to PFAS re-

leases; taken drinking water response actions at 23 installations to improve safety; and completed 165 of 189 required CERCLA PFAS Site Inspections. To enable our continued work, this budget requests $304 million for the Environmental Restoration program as part of the total $851 million Environmental Program request at Active and Guard bases.

Moving Forward

The message of the National Defense Strategy is crystal clear: a more lethal, resilient, and rapidly innovating Joint Force, combined with a robust constellation of allies and partners, will sustain American influence and ensure favorable balances of power that safeguard the free and open international order. Failure to meet our defense objectives will result in decreasing U.S. global influence, eroding cohesion among allies and partners, and a loss of military advantage.

To align the U.S. Air Force with this direction, we are putting forward an aggressive budget based on a new blueprint for joint warfighting. Joint All Domain Operations and the command and control networks required to connect the joint team form the centerpiece of this strategy. If we are to achieve the vision of the NDS, the joint force must fight together and deliver all-domain capabilities in a way that overwhelms our adversaries. We must acknowledge that all global military operations are connected to and rely on a safe, secure, and effective nuclear arsenal. We appreciate Congress' support with on-time budgets and the willingness to take prudent near-term risk to build a winning, networked force of the future. With this budget, the Air Force makes significant contributions to achieving irreversible momentum toward implementing the National Defense Strategy.

Senator WICKER. Thank you very much to both of you.

We will begin now with a 5-minute round.

General Goldfein, these savings of $21 billion found in night court, is that within the Air Force or the total defense budget?

General GOLDFEIN. Air Force and it is over the whole FYDP.

Senator WICKER. Well, in doing what you had to do with the budget submission and understanding that you had to make some tough decisions, where do you see the most risk in this budget?

General GOLDFEIN. Sir, I think the two hardest decisions we made at end game were two weapon systems that we are asking to retire some number of them, and I will talk about both, KC–135's, KC–10's, and also the A–10.

When it came to the KC–135 and the tanker portfolio, this is the classic tension between a combatant commander that is looking at a 2-year problem to solve and a Service Chief that is trying to build a force that wins in 2030. That tension has always been there and it always will be there.

When we looked across the portfolio of tankers, the congressional mandate is that we never go below 479. Secretary Mattis used to say, hey, before anybody says the "risk" word, you have to answer three questions: to who, for how long, and what is your mitigation. This is risk to the combatant commander who testified about that risk. This is going to be until the KC–46 comes on line, which we expect to be in 2023 to 2024. Our mitigation is that the retirement we are asking for in the KC–135 represents 3 percent of the overall KC–135 fleet, and we have committed to the combatant commander and the Secretary of Defense that if we go to a high end contingency, we will put every KC–46 we have into the fight. We will not use it for day-to-day operations, but it will be made available for a contingency. So we think it is a reasonable risk portfolio going forward.

On the A–10, also as we looked at that right at end game, on the A–10 we are putting almost a billion dollars into that weapon system, about $880 million, to re-wing, new avionics. We are going to

keep that weapon system flying, albeit with smaller numbers, well into the 2030s.

Those are the two areas that I think are a significant risk.

Senator WICKER. On the tankers, what will happen between 2021 and 2023?

General GOLDFEIN. Sir, we will manage the force like we do all other areas where we have shortfalls. What the TRANSCOM commander was laying out for you was the stacked requirements that he has to deal with day to day, and so just like we are short in bombers, fighters, tankers, ISR, command and control, the Secretary of Defense managed those forces against all of the demand signal, and in certain areas, he tells the combatant commanders they can have less of what they are asking for. We will do the same thing in the tanker force between now and when the KC–46 comes on line.

Senator WICKER. Secretary Barrett, with a budget decrease of approximately $12 billion from last year, are you comfortable with how the funding is allocated among personnel, equipment modernization, and operations and maintenance?

Secretary BARRETT. Senator, while we would like very much, of course, to have more funds, the reality is with these funds we believe that the allocation is appropriately designed.

Senator WICKER. General Goldfein, the Air Force requires 72 fighter aircraft per year to begin to recap its nearly 30-year-old, on average, aircraft. General Goldfein, you have said this is a minimum.

When do you believe we will be able to achieve this number, and given the importance of extending the range of our aircraft in any potential conflict and the comments from TRANSCOM, how do you balance the current air—you have spoken about the air refueling already. But if you would comment on the first portion of that question.

General GOLDFEIN. Yes, sir. Seventy-two is the number we need to be able to drive aircraft age down to about a 17 to 18-year average age which we think is sustainable. Without the 3 to 5 percent growth or some growth in the budget, to be honest with you, sir, I do not know at what point we would ever get to 72 fighters a year.

I will thank this Committee, though, because there was some lean years there where we were buying 20 to 30 airplanes total in several years, and so at least we are up into the 50s and the 60s now, so we are doing better. But I do not know at what point we will get to the 72 aircraft per year, if the budget stays flat.

Senator WICKER. Thank you very much.

Senator Reed?

Senator REED. Well, thank you very much, Mr. Chairman.

I want to follow up a bit on the tanker issue. First, thank you for your thoughtful response, General. It was very insightful.

Madam Secretary, I presume that you are really focused on getting the KC–46 in the air and operational working with the contractor Boeing. Can you give us some insight as to what you are doing, and can we be confident that in 2023 it will be fully operational?

Secretary BARRETT. We are meeting every day on that topic. It is really one of the highest priorities in the building, including meetings just yesterday afternoon. The Chief has been very much involved as well and working directly with the company.

At the moment it is not meeting all the requirements. It is able to be used for passenger transport, for cargo transport, and for aeromedical evacuation purposes and for some training. But we do look forward to having the remote visual system repaired to be usable, and we are looking to have some solution even by the end of this month on a way forward, and the Chief has been very much involved in that.

Senator REED. General, I understand from your response to Chairman Wicker that part of the contingency plan would be to essentially put the KC–46 in operation if there was a stress to the system. Doing the numbers, would that give us the capacity to engage in a significant contingency operation?

General GOLDFEIN. Sir, it would definitely reduce the risk. I think the TRANSCOM Commander, if he was here to tell you, we are living every day with the tanker shortage, and the KC–46 is not going to completely fill that in. However, because we are buying at 12–15 per year, every one of those tankers with crews would be made available in a high end contingency. It would certainly be able to overcome, for that period of time that we use them, the retirement that we are asking for.

If I could just add on to——

Senator REED. Yes, please.

General GOLDFEIN.—Secretary Barrett's point.

I wrote a letter to the CEO 3 days ago, and he came to see me—Mr. Calhoun, and he committed to me that the KC–46 was his top military priority and he was going to do what was required to fix it. I have seen a change in the behavior of that company since he took over, and so that is why we are more confident sitting here today that we have a serious fix on the table. We are in final negotiations so we cannot go into any more detail than that. But I will say that it is looking better today than it was even 6 months ago.

Senator REED. Just to follow up. I have no expertise with aircraft as you do. But today we will not use them in operational because of the visual system, *et cetera.* But in a contingency operation, we are prepared to use them. Would that require a significant modification in the way the aircraft approaching to refuel would operate? Again, are we just at this point being abundantly cautious or there is still some profound problem with the system?

General GOLDFEIN. No, sir. There are profound problems with the system. I would not be comfortable putting them into——

Senator REED. This contingency would be—there would be no other choice. We got to throw these in the mix, but it is going to be hope for the best.

General GOLDFEIN. Yes, sir. I will tell you I have been pulled out of a really lot bad places by some courageous tanker crews really low on gas. We want that tanker to be able to plug that receiver.

Senator REED. We had a chance, General, to speak yesterday about the sustainment costs of the F–35. I think most people would be—I know I was a bit surprised when the current sustainment cost is about $39,000 an hour. I know you are working to get it

down. But that raises the question of can we afford to buy more aircraft if we cannot afford to fly them. Can you comment very briefly on sustainment costs?

General GOLDFEIN. I can, sir. I met with all of the CEOs, to include Lockheed Martin and all of the subcontractors, and I told them in no uncertain terms both as the largest customer, as a Joint Chief that represents my fellow Chiefs who also have bought this aircraft and my international Air Chiefs who have bought onto this, the current flying hour costs are unsustainable.

We met. I gave them a list of requirements. They did a 180-day sprint with the Joint Program Office. I then went down and spent an entire day at Lockheed Martin with the leadership there and brought 27 stars with me. We went through a full day, and like what we have seen in Boeing. I believe Lockheed Martin has taken a serious look at sustainment costs, and their plan right now is to lower sustainment costs to $25,000 per hour by 2025. We are going to hold them to that.

Senator REED. Well, we are going to keep watch on your efforts and wish you well.

I will submit a question for the record, General, with respect to the MQ–9 industrial base. We talked about it yesterday. We looked and it appears to us that after fiscal year 2020, there are no MQ–9's in the budget, and we just want to get a better picture of where we are going with that asset. I will send it for the record.

Thank you, sir.

Thank you, Mr. Chairman.

Senator WICKER. General, what can the KC–46 not do in the next 2 years?

General GOLDFEIN. For normal refueling, what is happening with the remote visual system is a couple things. One, the boom operator struggles to see about the last 10 feet between the boom and the aircraft. It is a focus issue on how the system was designed. What is happening then is you start—there is the high potential for striking the aircraft around the receptacle if you cannot actually see it very closely at end game. That, as you might imagine, is not a good thing. While I would accept that with a highly trained crew in a high end contingency, I would not accept that for day-to-day operations. This is a hardware problem requiring a hardware fix.

Senator WICKER. Thank you.

Senator Fischer?

Senator FISCHER. Thank you, Mr. Chairman.

Secretary Barrett, General Goldfein, first of all, thank you so much for your service to this country.

I also want to express my appreciation for the robust way this budget funds nuclear modernization.

I want to thank you both for the attention that the Air Force has paid to the rebuilding of Offut Air Force Base as well. Your teams have been valuable partners as we have worked together to secure the funds necessary to repair, replace, and rebuild following the historic flooding that occurred in Nebraska a year ago.

Secretary Barrett, the 55th wing is the number one provider of large, fixed-wing Air Force ISR in the Nation. This is a capability that is in constant demand. I hear it from our combatant com-

manders. The newly contested environments that we are faced with now mean that we need to think creatively about integrating these platforms like the RC–135 into future networks.

Given that fact, how are you working to ensure the continued capability of the RC–135 as we look into the future time frame?

Secretary BARRETT. Thank you, Senator.

The RC–135 is pivotal to our ISR capabilities. As you know, training capability was lost during the floods at Offut. So I want to thank you for the funding to help get that back up so that we can renew the training.

The other key thing that is happening with that platform and others is the computer connectedness, building that as an element, a node on the network for our combatants.

Senator FISCHER. The Air Force laid out a future road map for the ISR mission in the ISR dominance flight plan. What progress has been made in implementing the points of that plan? General?

General GOLDFEIN. Yes, thank you, ma'am.

The most progress we have done is actually how we have tied to distributed ground system where we do all the analytical work in the ISR into this battlefield network, this advanced battle management, because it used to be that we would have platform sensors or weapons from all of our services that were operating independently, and then the universal translator across weapon systems was a phone or a chat room operating at human speeds. That is not going to work in the next fight. We have got to be able to work seamlessly at machine speeds, and that is what advanced battle management system does, and the RC–135 is a significant player in that.

Senator FISCHER. You had mentioned the ABMS and the JADC2, and the fiscal year 2021 budget makes significant investments in that next generation networking capability. How is the Air Force working to ensure integration of existing platforms with these new capabilities that are coming on line?

General GOLDFEIN. Yes, ma'am. That is the foundation of this, is how do we take existing capabilities, in addition to new capabilities, and connect them in.

When this Committee supported our move from Joint STARS into a battlefield network solution for the future, we took those savings and we put it into demonstrations and connected capability that is no longer PowerPoint slides with lightning bolts that are aspirational. We turned this into real capability. We are no longer talking about cloud capability. We actually built a cloud. We contracted with industry and all the services are connected in. We are not just talking about common data architecture. We built the unified data library, and now we are connecting and sharing.

Every 4 months, we connect portions of the enterprise, and we do a demonstration. We operate at machine speeds. What we are learning is that each of the weapon systems that we are connecting now jumps in its capability when you can connect it into a common architecture.

Senator FISCHER. Thank you.

Secretary Barrett, the Air Force is still conducting an analysis of alternatives, and I believe this is the second study that we have

had for that for the recapitalization of the E–4B. It is my understanding that the AOA will conclude soon.

What is the Air Force's plan to move forward after the AOA finishes? I ask this because this has been an issue of constant study, and I believe the first AOA was directed back in 2008. The challenges of maintaining that outdated airframe are only getting harder, and I think it is vital that the Air Force move forward after this AOA concludes and this issue should not be studied indefinitely. Can you speak to this, please?

Secretary BARRETT. We have found that sometimes studies are a never-ending process. I can assure you that we will review that study at its conclusion and make a decision based on its recommendations.

Senator FISCHER. We always want to make sure that we have all the information available at the time, but we do need to move forward. Thank you.

Senator WICKER. Thank you, Senator Fischer.

Senator Shaheen?

Senator SHAHEEN. Thank you, Mr. Chairman.

Thank you both for being here. General Goldfein, we appreciate your service and we will miss you, even though you may not miss us and these hearings.

[Laughter.]

Senator SHAHEEN. I want to go back to the KC–46 because that is a continuing concern for us in New Hampshire with the 157th air refueling wing, and we lost our last KC–135's over a year ago now. While the 46's have replaced them and we are seeing the planes come in and we hope to have all 12 new tankers by the summer, as you know, they are not flying and we are hearing from our Air Guard that they would like to fly some missions.

So I have two questions. The first is, is the biggest challenge still remaining the remote vision system? Do you have any sense from Boeing based on your communications back in January when this is going to get resolved and how long it will take to address that in the tankers that have already been put out?

General GOLDFEIN. Yes, thank you, ma'am.

So right now, we are in final negotiations with the company on the fix. So I have got to be a little careful about how much detail I go into.

But I did have a conversation, a follow-up conversation, with the CEO and told him that not only the quality of a serious hardware fix is important but also time because the longer we wait to get that aircraft operational, the longer we are having to extend KC–135's, KC–10's, and it continues to add up. So, we are going to be holding them not only to a really serious fix but also to time. Right now we are targeting initially about the 2023 to 2024 time frame to have the fix in place and operational. Then there will be some kind of retrofit time plan that we will have to work.

Senator SHAHEEN. So that is significant.

General GOLDFEIN. It is.

Senator SHAHEEN. I know that last week, Dr. Will Roper testified that—and General Lyons said that we are below the mark on both tanker capacity and tanker capability right now.

So if we are talking about 3 or 4 years before we are going to get up to capacity, what are we assuming is going to happen with the units like the 157th that would like to do missions? Are there other things that they can do as we look at the potential to utilize the KC–46 for medical missions or other things?

General GOLDFEIN. Yes, ma'am. So two missions that we are in the process of certifying now. It can do lift. We bought it for not heavy lift, but it can do lift missions and it can also do aeromedical. We are still in the process of certifying it for that. As soon as it is certified, we will start using it for those missions as we then go into the long-term fix for the remote visual system.

To your units, as you know, we took the Active Duty manpower out of the total force unit and moved it. Our plan is to have that available right now for the tankers that are operational and then as soon as we get the KC–46 online and the fixes in place, that manpower comes back.

Senator SHAHEEN. So that manpower is not going to come back until 2023–2024?

General GOLDFEIN. As soon as we can get a fix, and I will just tell you that Boeing has heard loud and clear that time is of the essence.

Senator SHAHEEN. Three or four years does not sound like time is of the essence to me, so I hope that this Committee will do what we can to address that as well because that is unacceptable. I mean, it really is.

Secretary Barrett, I want to go back to PFAS, which you mentioned in your opening statement, which we know is a concern. Again, I appreciate the commitment that the Air Force has made to address the situation at the former Pease Air Force Base. But I wonder if you have gotten an update from the Navy, who is the lead in developing a fluorine-free fire fighting foam, and where they are on that. The NDAA that we passed this year said that we needed to phase out all of the fluorine-containing foam by 2024. Do you know where we are on that?

Secretary BARRETT. I know the Navy is working and doing experiments with other foam additives. They have not yet, it seems, come upon a solution that meets the requirements to extinguish fires, intense fires, in contained areas. Of course, the Navy is very concerned about fires aboard ships. So they are very attentive. Right now, so far the PFAS formula is the one that is most effective at fire extinguishing.

We no longer use the PFAS in our training. When we do use any containing product, we contain it, and we are working diligently to clean up the problem that has been caused by the Air Force as every community around the country has been doing. But we take it very seriously. The health and safety of our communities is among the most important things that we work with.

Senator SHAHEEN. Thank you.

My time is up, but I just want to also thank you for committing, as did former Secretary Wilson, to address the occupational health study at Pease, and if there are more resources needed and we can be helpful with that, I hope you will share that with our office.

Secretary BARRETT. Thank you.

Senator WICKER. Thank you, Senator Shaheen.

Senator Cotton?

Senator COTTON. Secretary Barrett, General Goldfein, thank you for your appearance here again today.

General Goldfein, I want to go back to something you said in your opening statement. I want to see if we can put it a little more bluntly and just not beat around the bush on it. You and Secretary Barrett and your whole team have done a lot to try to identify what our Air Force needs to fight the future fight. That is going to require some divestments, some cuts in current programs.

An issue is that over here in current programs, you got a bunch of stuff that flies around right now that we can all see, or maybe more importantly, that sits on the ground in our States and employs people in our States. Over here, you have a bunch of stuff that is super secret, very classified, very cutting edge that we cannot see. Is that right? So you are talking about making cuts to the stuff that we can see and spending money on the stuff we cannot see. Is that the crux of the matter that you are getting at?

General GOLDFEIN. Yes, sir.

Senator COTTON. I do not think anyone doubts that we need all this super secret stuff over here. We have had a number of hearings on it. We created Space Force in part to address it. I just think it is important that we lay that out there and make it very plain so when we get down to brass tacks on the NDAA or we get down to brass tacks on the defense spending bill, that we all on this panel remember and that the other Senators in the Senate remember that the secret stuff is very needful and the public stuff that has been with us for a long time and very comfortable may need to be trimmed back to pay for the secret stuff.

That is not a strategy issue. That is a political issue for all of us to deal with, and that is not endorsing any single kind of cut that you may have to make here or any single kind of program you may spend here. We may have different thoughts on that. We may want to tinker around the edges. But, I think it is really clear that we just be up front about the dilemma that the Air Force faces, which is at root a political dilemma that we all should handle in a responsible and sober fashion given the threats that we face in the future.

General GOLDFEIN. Thanks, sir.

Senator COTTON. I now wanted to speak about spectrum, specifically the mid-band spectrum. Secretary Esper said that DOD is willing to explore sharing that spectrum, and we know that some of your systems like AWACS operate there. Can you talk to us about what mid-band capabilities that you are concerned about and how critical the spectrum is to those capabilities? I will throw that open to either one of you.

General GOLDFEIN. Yes, sir, and I will back up exactly what Secretary Esper says. We cannot vacate, but we can look at sharing. It does affect in the mid-band our AWACS and other command and control assets, and it certainly impacts where we are going with battlefield networks. But we do think that there is a strategy ahead for sharing.

Senator COTTON. So talk to us a little bit more about what not vacating but sharing would look like.

General GOLDFEIN. Meaning we have to operate in that spectrum. So there may be ways to parcel and share some portions of it, but we cannot leave it. There are some that are asking us to give that up, and that is not something I could ever advise you to do.

Senator COTTON. Okay.

Secretary Barrett, did you want to——

Secretary BARRETT. I would just say that sharing it has to be—the only sharing we can do is a sharing where the fidelity of our signals is not intruded. So what use others would have of it can only be made where it does not intrude in the signal that we are using.

Senator COTTON. Any thoughts on the kind of costs we are looking at here?

General GOLDFEIN. Sir, I know that they are taking a look at it. I have not seen any costs that I could give you yet. We can take that one for the record, if you like.

Senator COTTON. Yes, please do.

Secretary Barrett, did you want to add?

Secretary BARRETT. No, thank you.

Senator COTTON. One final question that is really on point. Unfortunately, some of our allies are moving forward with Huawei products in developing their 5G wireless systems, even countries where we have some of your airmen positioned. What are your concerns about their personal and operational security if the countries in which they are based are developing 5G systems using Huawei products?

Secretary BARRETT. It is a great disappointment to have allies that are using Huawei. Alternatively, we have not been forthcoming with good alternatives to the Huawei system. So we need to up our game to have as competitive a system, a more competitive system so that we are providing that. But it does put our signals at risk and our airmen at risk.

Senator COTTON. Yes, I agree. I will say that we have not been particularly effective at providing alternatives. I mean, we—I would say the entire West, the United States Government, allied governments, and our businesses—although I would say in all their defenses, it is hard to compete against a company like Huawei, which is an arm of the Chinese Communist Party and enjoys effectively unlimited subsidies. So when our allies are saying things like, well, we have to go with a reasonable cost provider, the only reason why Huawei is a reasonable cost provider is not that they are the best company or they have the brightest minds or most effective manufacturing techniques. It is because their bills are paid by the Chinese Communist Party, and that is something that we as policymakers should take into account when we are trying to identify possible alternatives.

General, I know this is your last posture hearing. Maybe it will not be your last hearing. I am sure you hope it is. But if it is not, it has been an honor to be able to serve with you these last few years, and we thank you for your service to the Nation.

Senator WICKER. General, we customarily invite retired experts with a lot of wisdom to come back. So I dare say this will not be your last hearing, but it will be on a voluntary basis.

Thank you, Senator Cotton.

Senator Blumenthal?

Senator BLUMENTHAL. Thank you, Chairman.

I want to join in expressing my appreciation and thanks—I am sure everybody on the Committee shares it—for your extraordinary service to our Nation and look forward to seeing you back again voluntarily.

Madam Secretary, I appreciate your focus on PFAS contamination and leading that effort. Is there a specific budget item for cleanup involving Air Force bases and facilities?

Secretary BARRETT. Senator Blumenthal, we have spent almost a half billion dollars in cleanup to date and will continue. I do not know what the exact number is for this year, but we will continue that cleanup effort and work with the communities for cleanup.

Senator BLUMENTHAL. Maybe you could provide that number.

The second point on this issue. Have you made a recommendation to the FAA that they eliminate their current requirement, as I understand it, that PFAS be used in the fire fighting foam on civilian airports around the country?

Secretary BARRETT. We have not made that recommendation to the FAA.

Senator BLUMENTHAL. Would you make it?

Secretary BARRETT. It looks like something we would look at. Let me say that.

Senator BLUMENTHAL. Thank you. I hope you will look at it and make that recommendation because I think it could be important in speeding their consideration of ending the PFAS requirement.

I am very interested in the discussion that you had with Senator Cotton about the classification issue. I will just restate—you may have heard me say it in our classified briefings—that the American public needs and deserves to know more so that it can appreciate the threats to the Nation and what you are doing to address those threats. I share your view that a lot of the super secret stuff is vitally important. The Nation needs to understand more about it and I think could well be told more about it without compromising our security.

I want to go from the super secret to the more mundane at the Air National Guard in Connecticut where NP–2000 propellers are currently in use. I am sure you are familiar with this issue because it is longstanding. The replacement of those legacy propellers is essential to the safety—literally the safety—of the men and women of our Air National Guard who fly those C–130H aircraft. Can the replacement of those propellers be expedited and accelerated, General?

General GOLDFEIN. Yes, thank you, sir. I will tell you I have been down there. I have looked at the propeller. I have watched it going in. It is an excellent propeller. We have, as you know, replaced all of the pre-1971 C–130H engines with that new propeller. At the same the same time, on the post-1971, we have adjusted our overhaul and our depot procedures to cover the safety issues associated with the older propeller. But we are studying and looking at whether we want to look at the MP–2000 for expanded use, and we look forward to working with you on that.

Senator BLUMENTHAL. I hope that we can follow up on that issue. I do not have time to cover it fully here, but I hope that we can talk more about it.

General GOLDFEIN. Yes, sir.

Senator BLUMENTHAL. On again the Air National Guard at Bradley, as you may know, $60 million has been invested in that Air National Guard base, and yet the C–130H modernization is going to be impaired by the diversion of $169 million going to the border wall instead of two cargo planes for that base. I want to know what can be done to overcome the obstacles that are created. These obstacles are presented in longer form by letter that I have received from General Evon of our Connecticut Air National Guard, the acting general. I would like to put it in the record if there is no objection, Mr. Chairman.

Senator WICKER. Without objection.

[The information follows:]

STATE OF CONNECTICUT
MILITARY DEPARTMENT
OFFICE OF THE ADJUTANT GENERAL
WILLIAM A. O'NEILL ARMORY
360 BROAD STREET, HARTFORD, CONNECTICUT 06105-3706

February 25, 2020

Honorable Richard Blumenthal
United States Senator
706 Hart Senate Office Building
Washington, DC 20510

Dear Senator Blumenthal:

I write to you to express my concern regarding the Department of Defense (DoD) request to reprogram Fiscal Year (FY) 2020 appropriations. This will negatively impact the National Guard as a whole and particularly the Connecticut National Guard (CTNG). As you are aware, DoD submitted a reprogramming request targeting the reallocation of approximately $790 million from the National Guard and Reserve Equipment Account (NGREA), $100 million from the Army National Guard HMMWV ("Humvee") Modernization program, and $196 million from C-130J aircraft procurement for the Air National Guard. These funds are essential to maintain National Guard operations, lethality, and readiness in support of the National Defense Strategy.

Any reprogramming from the FY 2020 funds for C-130J aircraft to be assigned to the Air National Guard could significantly impact the Connecticut Air National Guard (CTANG). The 103rd Air Wing (AW) is willing and ready to convert from their current legacy C-130H aircraft to the new C-130J aircraft immediately without any need for military construction funding. The CTNG has successfully executed over $60 million in congressional funding over only the last six years to modernize Bradley Air National Guard Base in East Granby, CT, the home of the 103rd AW.

The Connecticut Army National Guard (CTARNG) is also short approximately forty-seven HMMWVs. The CTARNG and CTANG have also submitted recent requests for critical equipment through their respective NGREA accounts. Any decrease in ARNG HMMWV modernization and NGREA funding will adversely affect the CTNG's readiness posture.

If approved, the targeting of these specific accounts would result in an unfairly disadvantaged National Guard as a whole and particularly negatively impact the CTNG. The National Guard provides almost 40% of the combat force structure to the Army and Air Force for less than 5% of DoD's military personnel and operations budgets. Targeting the National Guard for over 30% of the reprogramming request unfairly burdens the nation's most cost-effective combat force. I am appreciative of your efforts to oppose this reprogramming request. I ask for your sustained and vocal effort in this regard.

I am available to discuss this issue with you or members of your staff. I may be contacted at francis.j.evon.mil@mail.mil or at (860) 524-4953.

Thanks for your continued support!!

Francis J. Evon, Jr.
Major General
The Adjutant General

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Governor Ned Lamont
Dan Desimone

Senator BLUMENTHAL. I am sure you are familiar with the situation. So I would like to ask you what is the impact of diverting $169 million of C–130J procurement.

General GOLDFEIN. Sir, we are working through all of the mitigation efforts relative to the money that has gone towards the wall. I think the best I could tell you is that when the Chairman of the Joint Chiefs was asked to describe the impact, his answer was this amount of dollars relative to the strategic, immediate defense of the Nation did not have a significant impact I believe were his words. That is where we as Joint Chiefs are now relative to that issue.

Senator BLUMENTHAL. Finally, although my time has expired, I would like to ask a question for the record, not to be answered here but in writing, about also the impact on the F–35 program of apparently diverting money from the 48 F–35's requested in the budget. I know that you put 12 additional F–35 aircraft on the unfunded priorities list. I think that we need to explore what the impact is going to be on procurement timelines in that program. Senator Reed has rightly raised the issue of the sustainment costs, but the building and manufacturing costs I think also need to be considered.

Thank you, Mr. Chairman.

Senator WICKER. Thank you, Senator Blumenthal, and we will look forward to that answer on the record.

Senator Ernst?

Senator ERNST. Thank you, Mr. Chair.

Thank you, Secretary Barrett. Good to see you as always. General Goldfein, thank you very much for your service. We certainly do appreciate it.

As we just spoke, General Goldfein, I would like to address the issue of the KC–135's. A lot of discussion here today about the 46's and the 135's, and I would like for you to state just so the folks back home in Iowa understand where we sit. The 185th Air National Guard, the air refueling wing is one of the highest performing units in all of the Air National Guard. If you could just explain for those folks where they sit with their KC–135's, and at this point, we are a little bit thankful we do not have the 46's right now. So thank you.

General GOLDFEIN. Yes, ma'am. I can tell you that there will be no impact or no change to the 185th in terms of the 135's relative to the planned retirements.

Senator ERNST. Okay. Thank you very much for that. We discussed that with TRANSCOM last week as well. I think many of us are very, very concerned about that, and then how we do get to a point where we are transitioning to those 46's. That is yet to be seen, but we do appreciate your attention to that matter.

Secretary Barrett, we are in an exciting time where we have a lot of new and emerging technologies out there, and these technologies can augment our Air Force capabilities, which will help us anticipate and respond to various threats. We are pretty lucky that tech development in our civilian sector has boomed, and the Air Force now has a new way of taking a look at some of this technology, and as we move into acquisitions. It is kind of like an Air Force Shark Tank. Can you maybe tell us a little bit about that

and how that is developing and how we are able to see some of those technologies and apply them to today's modern Air Force?

Secretary BARRETT. Thank you very much, Senator. In fact, just last week I participated as a judge—we both participated as judges in Spark Tank, which was an evaluation of innovations that members of the air staff throughout the Air Force had come forward with ideas that were money saving or new inventions, new capabilities. That is inside the Air Force.

In addition, we are working very closely with pitch days for businesses and innovations outside of the Air Force.

Both of these are developments, ideas from the creative mind of Dr. Will Roper in acquisitions to think of ways of inspiring innovation and creativity and rewarding people that are initiating new ideas. So both internally within the Air Force, externally to small companies outside who have maybe in the past found doing business with the Department of Defense daunting but are excited about presenting their technologies, and instead of having months and years to get a contract with the Defense Department, one participant described it as they can get a contract from the Defense Department faster than they can order a beer in New York City. So there are some new processes that inspire people to want to do business with the Defense Department especially with new technologies and innovations.

Senator ERNST. That is outstanding. Can you describe some of the businesses that are taking advantage? Are they large businesses, small businesses?

Secretary BARRETT. These are almost all very small businesses. They are small businesses with good ideas.

The internal ones were people that saw damage being done to equipment and to stores and figuring out a way of loading cargo aircraft without doing damage, people that saw in test ranges the ability to move the threat that had been positioned—there were four standing threats but much easier, much better training if they can move those threats. There were a number of great ideas of ways to make the training better, cut costs, reduce waste, and have a better Air Force.

Senator ERNST. So you do believe this is a positive step forward.

Secretary BARRETT. Absolutely.

Senator ERNST. Fantastic.

Just very briefly, General Goldfein, autonomy. We have been discussing this with your colleagues in the Navy as well. The Air Force labs also do great work in this area. Can you briefly—very briefly—explain some of the technologies we are seeing come from that?

General GOLDFEIN. I will describe one very quickly, Skyborg, which is the Valkyrie drone system that we use successfully. In the upcoming demonstration in April, we are going to use it to be a universal translator between fifth generation capability in Navy and Army, and so Loyal Wingman technology where the manned platform and the unmanned platform are actually working as a team is where our future lies.

Senator ERNST. Excellent. My time has expired, but I would love to visit more about that at another point. Thank you, General Goldfein, for your service. We certainly do appreciate it.

Thank you, Mr. Chair.

Senator WICKER. Thank you, Senator Ernst.

Senator Heinrich?

Senator HEINRICH. Secretary, General, Space Force Vice Commander Lieutenant General David Thompson recently indicated that the U.S. Space Force will propose the consolidation of current space acquisition organizations under an entity called Space Systems Command. As you are aware, Congress specifically mandated that the Space Rapid Capabilities Office act as an independent agency. We did that to ensure that it continues to be able to adapt and innovate quickly.

What consequences would this kind of consolidation have on the organization's ability to innovate as Congress intended?

Secretary BARRETT. Our mission will be to design the systems so that we optimize creativity and adoption of technology in the use of our space assets.

Senator HEINRICH. So I am sorry. Say that again.

Secretary BARRETT. We will be designing things with that intent to have optimized technology for our space resources.

Senator HEINRICH. So you think by consolidating Space RCO into this broader capabilities office, you are actually going to be improving their ability to——

Secretary BARRETT. So I am not speaking to specifically that consolidation, with which I am not really familiar.

Senator HEINRICH. Because my concern is that one of the reasons why Congress has historically—General, do you want to jump in here?

General GOLDFEIN. Yes, sir.

Senator HEINRICH. We have been trying to protect this entity because it innovates quickly, and bureaucracy has a tendency to want to swallow things that innovate quickly.

General GOLDFEIN. Yes, sir. Amen.

The Secretary's direction to us has been crystal clear. While there will be a lot of discussions about administrivia and bureaucracy, our job is to deliver capability and deliver it fast at the speed of relevance because that is exactly what the threat countries are doing. Space RCO, as designed—and you had a huge hand in putting that together—needs to stay independent and it needs to be able to move fast without a lot of lines and boxes that all get a chance to vote on what they are doing. So we specifically built that on the model of our Air Force Rapid Capabilities Office, same board procedures, same authorities to move fast, and so we want to keep it independent.

Senator HEINRICH. That was the answer I was hoping I might hear.

I want to move on to PFAS, and, Secretary Barrett, I do not know how to say this other than I am—you know, I heard you earlier say that you are working with communities. But in the case of Clovis, New Mexico, I am sort of beyond frustrated by the utter lack of communication and any level of coordination at this point between Air Force leadership and local government elected officials for the City of Clovis. We recently received a response letter to the entire delegation. It was wholly inadequate. This is a community that has bent over backwards for decades with great pride to host

the Air Force in their community, and they feel like they are getting absolutely stonewalled right now.

So I want to ask you if I can have your commitment that you will direct whoever the appropriate Air Force personnel are to establish direct communications with local officials in Clovis to work together to remedy the PFAS situation there.

Secretary BARRETT. You have my commitment.

Senator HEINRICH. Thank you very much.

I also want to ask you with regard to the authorities that were given to the Air Force in the most recent NDAA, if you will work with New Mexico and State and local officials to find a permanent PFAS solution and actually use those authorities that Congress gave the Air Force in the NDAA.

Secretary BARRETT. We are doing research now and will continue to do that. It is a Navy lead, but the Air Force is working it as well.

Senator HEINRICH. Because one of the things we did when this issue popped up is ask the former Secretary, you know, what can you do and what can you not do. She was very blunt about what she could not do. We changed much of that in the NDAA, and we would like to see you use those authorities.

I want to move on to MQ–9's, and Congress obviously appropriated a lot of money for MQ–9 training. That money was taken by the President to pay for a third century technology being deployed along our southern border. I want to know what the plan is because these folks are training in very substandard conditions over a sinkhole in a building that could not pass code enforcement in a third world country.

General GOLDFEIN. Sir, we are working through the mitigation right now. As you know, it has been fairly recent that we are working our way through this.

I just go back to the question we were asked as Joint Chiefs, which is describe the impact relative to defend the Nation and the immediate significant strategic impacts. That is where the Chairman gave his answer, and so that is where the Joint Chiefs are right now.

Senator HEINRICH. Yes. I understand the strategic impacts. I think it is just reprehensible when you walk through that facility to see our best and brightest training in a facility that is not safe, that you could not get to pass code in any community in the United States, where there is duck tape on the walls, and these are our best and brightest.

Senator WICKER. Thank you, Senator Heinrich.

Senator Cramer?

Senator CRAMER. Thank you, Mr. Chairman.

Thank both of you for being here and both of you for your service. A special thank you to General Goldfein again. I never ceased being amazed at the talent that replaces really good talent, but I also never cease being concerned by the loss of excellent talent. I am concerned but grateful to you for your service.

Also thank you for last week. I did take advantage of the invitation to participate in the classified discussion, and I would encourage all of my colleagues who have not taken advantage of that to

do that. It was very helpful. It created a lot of answers but a lot of questions as well.

So with that in mind, I am just throwing a few of them and let each of you respond, if you will.

With regard to the here-to-there strategy—and you referenced I think quoting General Mattis the "risk" word and talked a little bit about it. But my specific parochial interest, of course, is the ISR mission specifically, the Global Hawk wing at Grand Forks, to some degree as well the MQ–9's, but particularly the Global Hawk wing at Grand Forks and the retirement of the block 20s and block 30s at Beale and how that affects the folks in Grand Forks and in North Dakota and would love to hear anything you can tell us and tell them about the future of that base and its mission.

Also, while you are talking about that, maybe ask the question about the Arctic and the Arctic fight. We have had a lot of discussions in this room, with others as well, but I would give you the opportunity as well to maybe give us some insight into what is being planned.

General GOLDFEIN. Yes, sir. I will do ISR and then the Secretary will take Arctic.

On the ISR portfolio, so as you saw when we sat down, there are certain capabilities that we are bringing together in a classified realm and we are connecting capabilities that today are not connected. Because almost every platform out there, whether it flies, orbits, submerges, runs, rolls, it is a sensor. But we have not been able to tie together those sensors to be able to fuse data in ways that can make this common operational picture, and so now, as we tie things together, we are finding that we get far greater fidelity on what it is that we are doing. So a combination of space capabilities, you know, missions that we are doing in the air today that we are migrating into space, classified capabilities, and pulling these all together with common digital engineering and common data architecture is actually improving our ISR and allow us now to take some risk when it comes to individual platforms. That is our strategy for the future.

Senator CRAMER. So can you expand a little bit then on what the future to Grand Forks specifically may look like in light of this?

General GOLDFEIN. So what you will see in this budget is the retirement of the older Global Hawks, and with all of these, we want to make sure that we work with the communities and with you, sir, and with all of the Senators to make sure that we minimize impact on the base as we go forward because Grand Forks, like many other bases, is key strategic terrain. It is key to the Arctic strategy because of its location. It also supports some of our ground-based intercept radar feeds that are so important to us. So we want to make sure we mitigate the impacts to Grand Forks.

Senator CRAMER. Madam Secretary?

Secretary BARRETT. The Arctic is of increasing importance to the United States, and it has been important for a long time, but ever more increasing now. As a result, the Arctic strategy is a key element of the Air Force and the Department of Defense's effort, but the Air Force more than other elements because 80 percent of the Arctic defense is provided by the Air Force or Department of Air Force elements.

So you know from my background, I have paid quite a bit of attention to the Arctic. One of my first visits was to Thule. I spent time in Finland and later this week, I will be visiting the Minot operations and later this month be in Alaska also looking at those facilities. So it is a very important topic and of increasing importance to us.

Senator CRAMER. Thank you.

In my remaining seconds, I might just ask in general as we look at the DOD budget—and I know you have a heart for a discussion about the pass-through part of your budget and how that may work and how people view the budget. I mean, the Air Force always seems to me, with its being the tip of the spear and the highest priority in DOD operations, to sort of be at the short end of the stick budget-wise. I mean, are you generally satisfied with what we have in terms of the entire budget for the Air Force?

Secretary BARRETT. Well, we have to live within the top line, so we have had to make a lot of trades that we wish we would not have to. The pass-through is an especially disconcerting matter because it does create a misperception. We are looking at that as something that we will come to Congress with a proposal in the next budget on how that should be treated in recognition of a Space Force and the reconstruction that will be occurring through the Department of the Air Force.

Senator CRAMER. It is a conversation whose time has come. Thank you.

Senator WICKER. Thank you, Senator Cramer.

Senator Peters?

Senator PETERS. Thank you, Mr. Chairman.

To our witnesses, thank you for your testimony today. General Goldfein, I would like to join some of my colleagues in wishing you all the best in the years ahead. It has been a pleasure working with you these past years, and we will look forward to your next adventure, whatever that may be.

Secretary Barrett, I would like to discuss the issue of PFAS with you, as several of my colleagues have mentioned. As you know, PFAS is very dangerous to human health, and the contamination has been identified at the former Air Force base at Wurtsmith in Oscoda, Michigan. It is something you and I have discussed many times in my office, and I appreciate your openness to that discussion. Also, I have discussed this with Assistant Secretary Henderson who visited the former base on my invitation, and we have also discussed it a great deal.

I want to just say I appreciate your recent letter confirming the little over $13 million will be going towards cleanup at Wurtsmith. That is $13 million out of the $60 million that we appropriated for the country. So I appreciate that commitment to the former base.

My question to you is, could you provide me an update on how the remediation money is going to be spent and will that have an impact on the timeline at the former Wurtsmith Air Force Base?

Secretary BARRETT. Senator, I do not know the sequence of the spending and the impact on Wurtsmith. But I know that we are working closely with the communities. Our mission is to preserve and protect the safety and health and to involve all of government

so that we have solutions that engage with the needs of the community as well.

Senator PETERS. Well, if I may ask if you could have someone get back to us as to specifically how you see that money spent and what the timeline would be, it certainly would be very much appreciated by the community. The community appreciates the additional resources and they are anxious to see what the details are regarding the money.

Secretary Barrett, I also would like to talk to you a little bit about the F–35 basing decision, something we have also talked about a great deal, and the basing of F–35's at the Selfridge Air National Guard Base in Michigan. Since we have been in these discussions, President Trump has made a number of comments, and I would like to get an update, if I could, from you. President Trump recently said—and I am going to quote from President Trump—and that is why we are giving strong consideration to deploying some of our mighty F–35's to Selfridge Air National Guard Base, and you know what that means. Right? You know what that means. That is a big deal.

He goes on to say, quote, so Selfridge, you are going to see a lot of very fast planes. Actually they are totally stealth. So maybe you will not see them coming in. Okay? You will not see them come in but they are coming in. End of quote.

That certainly got a lot of folks very interested in Macomb County especially in Michigan, and I know the Air Force recently finalized the environmental impact statement relating to the basing decision. So I know the choice is with you.

If you could just provide us an update on the Air National Guard's F–35 basing process, where we are on it.

Secretary BARRETT. I think as we have discussed, there is a very deliberate process with criteria and a down select process. We are in that process now, and therefore it is inappropriate for me to go into detail about the participants in the search. But we are going through a very deliberative and pre-established and approved. That does include an evaluation of the environmental impact, the costs that are going to be required, the facilities that are there, and we are looking at the community interest and involvement.

Senator PETERS. The environmental impact study has been finalized, so you are well down the path.

Secretary BARRETT. Yes, and comparing those of the various contestant bases.

Senator PETERS. Thank you.

The last question. I am concerned about the recent reprogramming of the $1.3 billion from the National Guard and Reserve equipment account that was reprogrammed to support the construction of the southern border wall. As both of you know, that funding provides the National Guard resources to mitigate key readiness shortfalls. Two specific programs that benefit from those funds that are being shifted to the southern wall are MQ–9 upgrades to support domestic operations and the KC–135 modification to improve survivability. Those are two platforms that we have in Michigan. The 127th wing operates eight KC–135's. The 110th wing supports MQ–9. They are both, as we discussed here today al-

ready, in high demand and play a very, very important role in national defense. It makes me skeptical as to the impact on readiness.

Will the Air Force reprioritize how it approaches National Guard modernization priorities when these funds have been reprogrammed away from key National Guard units?

Secretary BARRETT. Senator, we will be evaluating the impact. All of the deferred projects are important, but the President's has declared an emergency on the southern border. The Chairman has indicated there is no immediate, significant strategic diminution of readiness as a result of this transition. But the application of reassigning the resources is—nothing further is expected beyond what has been announced.

Senator PETERS. I am out of time. Thank you.

Senator WICKER. Senator McSally? I am sorry. Senator Perdue scooted away from the dais, and I was looking for you.

Senator PERDUE. Well, first of all, I have used 5 seconds now already.

Senator WICKER. Reset the clock.

Senator PERDUE. I want these two to know—I am going to say this for the public record. They know personally privately how much I personally think of each of them in their careers and appreciate so much each of them individually. You guys are at the turning point in the U.S. military right now in so many ways.

I just have three issues I want to get at real quick, but just two quick questions. One is I think this whole thing that you are in the middle of, this transition, is what we have already said, visible current capability versus classified replacement capability. Obsolescence—we know we have maturing assets all over the Air Force. I am very concerned about one specific thing I will get in just a second.

The second thing, in terms of the JSTARS capability moving to an ABMS, picking up—ABMS capability picking up the JSTARS capability, is this whole development of new technology versus an old acquisition structure. You got AI in here, and AI, as I understand it—it is machine learning, so the more data you give it, the faster it learns. Well, that does not necessarily fit an acquisition structure.

So Will Roper just recently—he is the Acquisition Chief, as you know, Chief. We have come so far in ABMS, that we realize it is bigger than just replacing the capability that JSTARS provides. If get ABMS is right, you just built the military's Internet of Things. That is super exciting, *et cetera.* But this does not fit the traditional acquisition structure.

The third thing is how do we interact. Given all of that, Congress is funding—we have an oversight called the NDAA. We try to give direction. We do not want to become bureaucratic. But right now, I am very concerned. So in the first few months, you have had one demonstration in December. You got another one coming in April. My concern is in the first two gates we had—I think it was August 30th or somewhere in there—the AOA was to be completed. Within 6 months after that, Secretary, you are to give us an update, as I understand that. Now, I understand this is somewhat fast moving.

The next thing is a briefing in January of some sort here.

I realize this is a classified topic but, Secretary, I need your commitment today that the Air Force will abide by the current NDAA, the public law that exists today that relates to JSTARS and ABMS, specifically section 236 and section 147, and that we can expect to receive the AOA, or analysis of alternatives, and the capability development document. Can you commit to that today?

Secretary BARRETT. I am not confident that I can commit to it today, but we will evaluate it. May I get back with you even later today?

Senator PERDUE. Well, absolutely, but what we are talking about is a new NDAA. We are preparing for the new NDAA. So if changes need to be made to the structure of oversight, now is the time. You are new in this. This is your first cycle. It is the Chief's last cycle. So we have got the best of both worlds here, but let us get this right, because this cannot be an acquisition process that we wake up in 3 years and realize it is 3X in cost and 10 years late, just to be blunt. It's really unacceptable that we do not get these reports on time when we have asked for that and we had commitments of predecessors to do that.

The second thing, Chief, the events that we are doing now, the demonstrations, the capability that JSTARS has—the two I am concerned about is GMTI, ground-moving target indicators, as you have spoken before about, and then battle management. We get some feedback from other services that, well, we are headed in the wrong direction or we need to adapt this. Can you talk about specifically those two capabilities, and then what does that mean in terms of the organic force structure at Robbins to help facilitate the headquarters development there of ABMS?

General GOLDFEIN. Sure. I will hit the last part first. There is no intent to reduce the size of the force at Robbins, and we are committed to working with you on that.

Senator PERDUE. I apologize to interrupt. But you are talking about the force of JSTARS, and there is a gap as JSTARS matures out and you replace it with ABMS, there is a gap of capability. We know it exists today. But in terms of organic force structure, I accept your answer. I appreciate that. Can you address the other part of that?

General GOLDFEIN. Yes, sir. But to the gap, once we determined that we could fly Joint STARS well into the late 2020s and into 2030, that actually filled the gap. So this whole plan is to ensure there is no gap because there can be no gap for the warfighter.

Senator PERDUE. Very good.

General GOLDFEIN. But we have to ensure that we can get them this information on day one of the fight, which you were very helpful.

What we are trying to do here is incredibly disruptive, and it is disruptive in the eyes of the adversary. What we did to bring on a new way—this goes to your point about the current acquisition system. We brought in 12 pioneers from industry and put them on the advanced battle management system. We have the designer of Uber on our payroll, and so we are using industry's best practices, and industry is in here with us doing this.

The next demonstration we are going to do at Nellis Air Force Base where all the Joint Chiefs will go to it, we are going to be

doing live fly connective capability at Yuma, at Eglin, off the shore, at White Sands, at Nellis Air Force Base. We are going to have three supported commanders, and we are going to have a number of firsts. If we do this right, about 60 percent of it will work.

Senator PERDUE. So will the next demonstration have GMTI and battle management demonstrated in that demonstration?

General GOLDFEIN. It will but it will do it, not from where we want to eventually take it. It will do it in an interim step.

Senator PERDUE. Yes, sir.

General GOLDFEIN. I will just leave it at that.

Senator PERDUE. Thank you, sir.

Thank you, Mr. Chairman.

Senator WICKER. Thank you, Senator Perdue.

Next is Senator Hirono.

Senator HIRONO. Thank you, Mr. Chairman.

I add my thanks to you, General, for your service and my best wishes on your impending retirement.

Madam Secretary, I was pleased to hear about your pitch days where you encourage small businesses to pitch their ideas. Where do these pitch days occur?

Secretary BARRETT. They have been taking place around the country. I attended one in San Francisco. They are in a variety of cities around the country.

Senator HIRONO. Nothing in Hawaii yet.

Secretary BARRETT. Not that I know of.

Senator HIRONO. Think about that.

Secretary BARRETT. Yes, I will put that on the list.

Senator HIRONO. I want to add my concerns to those expressed by some of my colleagues about the reprogramming of DOD money to go to the wall on the southern border. So I just want to express that. At some point, I think it does have a negative impact on readiness and other aspects of what the DOD is supposed to be focused on.

Madam Secretary, the National Defense Strategy highlights great power competition with China and Russia and it includes North Korea, Iran, and transnational violent extremism. Four of these five threats are in the Indo-Pacific AOR. I am glad to see the focus on the region given its growing importance to our national security.

What concerns you most with regard to the Indo-Pacific region as the Secretary of the Air Force?

Secretary BARRETT. A key issue there is the vastness of the territory, and logistics, being prepared to position, station our capabilities through that area.

Senator HIRONO. Yes. It is the biggest AOR.

Do you believe then that additional assets and investments are needed for the Air Force to maintain its competitive advantage against our adversaries in this part of the region—or this part of the world?

Secretary BARRETT. There is a significant review of how we are positioned for the greater peer threat.

Senator HIRONO. When is that review going to——

Secretary BARRETT. I think there is continual review.

Senator HIRONO. So do you think that this review will result in more concentration of certain assets in the Indo-Pacific Command area?

Secretary BARRETT. I do not want to predict the outcome of it, but I would anticipate that the realities will be a significant part of how those assets will be decided.

Senator HIRONO. I hope so. General, do you agree?

General GOLDFEIN. Yes, ma'am. So the Chairman is leading us through global integrated exercises that is looking at global campaigns because a China or a Russia campaign will not be confined within that geographic area of responsibility. So we are working our way through what does the command and control look like which is why this JADC2 is so important for how we look at this new way of warfighting going forward. We are doing that review now.

Senator HIRONO. Thank you.

This is for Secretary Barrett. Last fall, the Air Force indicated Barking Sands, a specific missile range facility, in Kauai as the preferred location for a Pacific-based space controlled squadron operated by the Hawaii Air National Guard. I have not heard much else since that initial announcement. Can you advise what the status of the space controlled squadron is and when will the unit be activated?

Secretary BARRETT. Senator, I do not know the answer to that. May I get back with you?

Senator HIRONO. Yes, thank you.

So for both of you, as the Air Force prepares for a future possibility of conflict with a near-peer adversary, I understand you are investing in agile combat employment where you would launch, recover, and maintain aircraft away from main bases using partner nations, military fields, or civilian airfields. Secretary Barrett, what nations in the Pacific theater, if any, have been approached thus far as possible locations for these agile combat employment teams and assets? Or if the General would like to respond.

General GOLDFEIN. Well, I would just say we are really blessed that my successor has been nominated publicly, and that is General Brown. This is his concept of operations that he will no doubt, if confirmed, bring into the seat. I actually went to his Pacific Air Chiefs conference, and this was a central topic of discussion. I will tell you that from the Philippines to Singapore to—I mean, I could go around the region, and all of them are talking about this new concept of employment.

Senator HIRONO. Great. We will have an opportunity to talk with General Brown about that.

General Goldfein, what are your thoughts on having the C–17's at Joint Base Pearl Harbor-Hickam under operational control of INDOPACOM versus TRANSCOM?

General GOLDFEIN. I think the decision has been made to actually chop all of the strategic lift to TRANSCOM for the purposes of global mobility. This is part of the global integrated exercise. We have just been working through this as well in Central Command as well. So TRANSCOM through the last directive from the Chairman has been given operational control of strategic lift. You know, General Lyons is the one that manages that for the globe.

Senator HIRONO. I do have some questions for the record relating to how we are dealing with the issues of suicide and sexual harassment. So I will submit those for the record.

Thank you, Mr. Chairman.

Senator WICKER. Thank you, Senator Hirono. We will look forward to those answers on the record.

Senator McSally?

Senator MCSALLY. Thank you, Mr. Chairman.

Good to see you both again and thanks for your service. I appreciate all you are doing to ensure our Air Force is ready for the high end fight, but we also have an obligation when our troops are on the ground to have the best capability overhead for combat search and rescue and close air support. So on to our beloved A–10.

General Goldfein, is the Air Force committed to complying with all laws on the books and the intent of Congress related to the A–10?

General GOLDFEIN. Yes, ma'am, we are.

Senator MCSALLY. Thanks.

When I first got to Congress, if they had gotten their way in the last administration, we would have no A–10s flying right now. So we stopped that in fiscal year 2016. In fiscal year 2017, I took a different approach. I said we need to make sure that we think about this as we develop the F–35 and we have a thoughtful sequential approach.

So we required in section 134 of the fiscal year 2017 NDAA two reports. I wrote this and it made it into law. The first was for the Director of Operational Test and Evaluation to submit the F–35 IOT&E report to Congress and to you. Then the second was a report by the Secretary of the Air Force specifically after the IOT&E report was delivered, not later than 180 days—and I am going to read this—the Secretary of the Air Force shall submit to Congress and the defense Committees a report that includes the views of the Secretary with respect to this report, including any issues or concerns—I am kind of summarizing here—a plan for addressing any deficiencies, carrying out the corrective actions, and the short-term and long-term strategies for preserving capability of close air support and combat search and rescue.

This also included the fly-off competition that I mandated, and that has been conducted between the A–10 and the F–35.

So the final paragraph in that fiscal year 2017 NDAA says, the Secretary of the Air Force may not retire, prepare to retire, or place in storage or on back-up aircraft inventory any A–10 aircraft—any A–10 aircraft—until a period of 90 days has elapsed following the report, the second report.

So, first, IOT&E after the fly-off competition, then the Secretary of the Air Force report. No A–10 can even be planned to be put into storage. I wanted to add "thought about," but we could not enforce that. But I think you get the point.

The question is—and these are just kind of yes and no, General Goldfein, have you received the initial operation test evaluation report for the F–35?

General GOLDFEIN. No, ma'am.

Senator MCSALLY. Neither have we, so you have not been able to then inform any planning by the Secretary for the second report because we do not yet have the first report. Right?

General GOLDFEIN. Correct.

Senator MCSALLY. So this Committee and the Air Force does not have any plan for addressing deficiencies potentially from the IOT&E report.

General GOLDFEIN. Correct.

Senator MCSALLY. And also we do not have the plan for corrective action. Right?

Finally, neither the Air Force or the Committee has the Air Force's short-term and long-term strategies for preserving close air support and combat search and rescue. Correct?

General GOLDFEIN. Right.

Senator MCSALLY. So based on your answers and based on the law we wrote, I just think it is premature to plan to retire even one A–10, never mind the 44 that are planned to retire in this year's budget. So how do you justify the planning starting for this when we have not met the intent of the law yet?

General GOLDFEIN. Yes, ma'am. The DOT&E report—the fly-off is complete. They are holding that report until they deliberate. The director informed me that he would deliver that to this Committee in September, the first month of the fiscal year. We understand the timeline that is in the law, and we will absolutely comply with the law.

What we put in the budget was where we will need to work with you on because—and the question is timing, as you brought up. Will there be time in that fiscal year to be able to move forward on any retirements and still be in compliance with the law? So that was our thinking.

Senator MCSALLY. Yes, I got it. Look, we made it, I thought, very clear, like we should not even start having a conversation to plan anything related to the floor we have of the number of A–10 now until this is all complete. What is your plan going forward related to the A–10?

General GOLDFEIN. Yes, ma'am. I will tell you straight up. You saved the A–10. Nobody else can make that claim, and as a result of your efforts and the efforts of this Committee, we are putting almost a billion dollars into the A–10. We are going to be doing the wings, the avionics, the radios, and we are going to keep that airplane in the inventory flying well into the 2030s.

The challenge we faced is what I said in my opening statement, which is we have to transition to the future while we are continuing to apply fire power against the current fight. There is no better weapon system to do that than the A–10. So the investment that we are making is a good investment. We just got to take a look at what the cost would be if we keep the entire fleet, and that is what we have got to work with you on to do that.

Senator MCSALLY. And we will. Thanks.

In my remaining time, I want to talk about the President recently reprogrammed resources. Look, as a veteran, as a border Senator, we need to support our military and secure our border. These should not be choices and obstruction to stop happening.

But I want to specifically ask about the F–35, the money that is being reprogrammed. We plused up from your 48, we plused up 14, so we funded 62. What is the impact on the Air Force F–35 and specifically any impact to Luke Air Force Base?

General GOLDFEIN. Yes, ma'am. There will be no impact to Luke Air Force Base. The money that was diverted was for long lead items for aircraft that actually did not come through in the budget. So we put 12 in the unfunded request for this year, but that was long lead items for certain parts. It was not procurement for the aircraft. So no impact on Luke.

Senator MCSALLY. So we are still going to have 62 come off the production line this year.

General GOLDFEIN. Yes, ma'am.

Senator MCSALLY. Great. Thank you. Appreciate it.

Senator WICKER. Thank you, Senator McSally.

General, did your attorneys advise you that you are compliant with Senator McSally's provisions in the NDAA with regard to the A–10?

General GOLDFEIN. Sir, they did, and they did that based on again time. The fact that the report that Senator McSally is referring to was going to be delivered in the first month of the fiscal year and the number of months ahead of that, there was time to work with this Committee on the retirement of those aircraft in this timeline.

Senator WICKER. Thank you, and thank you, Senator McSally.

Senator Manchin?

Senator MANCHIN. Thank you, Mr. Chairman.

Thank both of you for your service and congratulations on your retirement, General. Some day I hope to be there.

Anyway, as you can imagine, the 13 States that qualify for the C–130J recapitalization as appropriated in fiscal year 2017 and 2019 are eager to hear where the Air Force is in this process. Our staffs were told in November we would get some kind of an update this winter. It has not come yet.

In the meantime, I have inquired about the Air Force's strategic basing scoring process for the decision both because I am interested from an oversight perspective and as someone who has to prioritize what I push for as an authorizer and an appropriator. I asked the Air Force if Congress would be allowed to know the score of its National Guard location particularly as it relates to others, and I was told no. The Air Force responded to my request for information the strategic basing process uses score sheets to determine a location's viability for a basing bed-down decision.

However, the score sheets alone do not provide the full context of decision criteria and are no longer used in the basing process once candidate locations have been selected. Once selected, site surveys are conducted in each candidate location as part of the holistic assessment of its suitability. The Secretary of the Air Force also leverages inputs from Air Force corporate leaders, Chief of Staff, and military judgment.

I understand what you need to do what is best for the Air Force, and we all need to support you to do what is best for the Air Force, and I am not one who ascribes, just because I have something in

my State, that is the best. If they are not performing, I am the first to say either get with it or get out of it.

So with that being said, I am very proud of the 130th air wing in Charleston where we score really high on the score sheet, but might not be selected. So I want to make sure that we have a fair shot at this.

So my question to you, Madam Secretary, is the Air Force needs to show its work. Do you understand the Air Force process limiting my ability to do oversight? Do you think it is too subjective what I am asking in response?

Secretary BARRETT. Senator, the process is a complex one and goes through a variety of criteria, some of which are not easily measurable in quantifiable terms.

Senator MANCHIN. If I could just say—I do not mean to interrupt you, but time is limited. In that, I know any type of performance is based on past performance, how well the readiness, maintenance, being able to complete the missions, and that is what I think to me would be at the top of the list of looking if they have been performing, not just saying I am going to do it better if you do this for me, but have they performed in the past. We are hoping that is a high score too, but we would like to see that.

Secretary BARRETT. Past performance is deeply valued, and West Virginian's demonstrated their ability to produce and perform. So we appreciate it very much.

The criteria are spelled out for the initial cut, and then there are site visits and things that are lot less——

Senator MANCHIN. Will we be able to see any of that as an appropriator and as legislators? Will be able to see the process you are going through, or is that not available?

Secretary BARRETT. I do not know whether it has been made available in the past, but I would be happy to take a look——

Senator MANCHIN. Would you consider that? Maybe you could get back with me on that?

Secretary BARRETT. I would be happy to.

Senator MANCHIN. First of all, I want to say I am for the wall. I am just not for the executive branch appropriating money as they see fit, and here is my concern. What really angers me is the $1.3 billion cut from the National Guard and Reserve equipment account; $205 million, which is cut from the Air Force Reserve; $395 million cut from the Air National Guard.

So, Secretary, I would ask you, did you agree to the reprogramming request or were you involved in that decision?

Secretary BARRETT. The Air Force worked with the Department of Defense to minimize the disruption that would be caused by the reappropriation of those funds.

Senator MANCHIN. Were Governors and the TAGs—were they consulted on the reprogramming?

Senator MANCHIN. I do not think they were.

Senator MANCHIN. Yes, I do not think so. From what we are hearing, they were not either.

The reprogramming of the $365 million. That is four fewer C–130J's for fiscal year 2020, affect the ability to support TRANSCOM airlift missions in the event of a conflict. It really puts us in jeopardy and behind the 8 ball there because we are flying

0–H's now, and we are hoping that you are going to refurbish them with new avionics, propellers, and engines and things that need to be done. We are behind. I am really concerned about this.

General, you might want to state on that I guess. What are your plans to ensure there are no gaps in readiness?

General GOLDFEIN. Yes, sir. I will tell you that we are right now still working through the impacts. The Chairman was asked to give his assessment of the impacts on not only readiness but the strategic ability to defend the Nation, and I think you saw his response and that is where the Joint Chiefs are.

Senator MANCHIN. Well, there is no doubt there is going to be an impact. We all know that. How severe is going to be—we will be back here next year, if money is taken again from what we appropriate, we go through and do our job, and then all of a sudden it vanishes and we are back to square one again. I do not have a problem voting for the wall. I sure have a problem with money being taken for what is needed for us to defend our country.

Senator WICKER. Thank you, Senator Manchin.

Senator Hawley?

Senator HAWLEY. Thank you, Mr. Chairman.

Madam Secretary, General, thank you for being here. Thank you for your service.

General, let me start with you. My home State of Missouri is very excited and proud to receive the B–21, which will form a critical part of our nuclear triad and also our conventional global strike capability.

Let me ask you this, how do you envision the B–21 helping to defeat a Chinese fait accompli scenario involving Taiwan when you consider both its nuclear and its conventional capabilities?

General GOLDFEIN. Yes, sir. You know, very often I tell my slide builders, the next slide I see that has a big red dome over China or Russia, I am going to execute choke on on the slide builder. China cannot put a big red block of wood over itself. It can put a block of Swiss cheese over itself, and our job is to know where the holes are and how to get in and how to hold targets at risk. That is what the B–21 does.

Senator HAWLEY. Let me ask you about the number. You previously stated, General, that the Air Force requires at least—I think your words were—at a minimum 100 B–21's. You have also said you are in lockstep with various analyses showing the Air Force may need more than 100 B–21's. So give us your best estimate. How many B–21's does the Air Force actually require to cover now and above its nuclear and conventional missions?

General GOLDFEIN. Our assessment—and that has been backed up by independent assessments—is that a moderate risk force is 220 bombers, of which 145 would be B–21's.

Senator HAWLEY. Very good. Thank you.

General, Missouri is also home to the 139th airlift wing, which does incredible work to ensure that the joint force has the tactical airlift it needs. We are very proud of that as well. Can you tell us how you see the Air National Guard airlift with units like the 139th enabling distributed operations in the Indo-Pacific and Europe?

General GOLDFEIN. That unit, like all of our Guard units—that is one of the beauties of the way the Air Force is organized. You know, when I have traveled around as the Air Component Commander in Central Command, I would go to the cockpit of a C–17 or a C–130, and I would say, okay, who is Active, who is Guard, who is Reserve? And all three hands would go up. Such is the nature of how we are integrated.

We could not do the Nation's business without our Guard and Reserve. Could not do it.

Senator HAWLEY. Let me ask you about modernizing the C–130H and the expanding number of C–130J's. How might doing those things for the Air National Guard enable those units to support the kind of operations we have been talking about?

General GOLDFEIN. Well, both in the C–130J, which is just a phenomenal weapon system—I think we are running out of letters in the alphabet for the C–130. So the C–130J is just incredible. The upgrades we are doing on the C–130H with the new avionics is going to keep that weapon system flying as well.

When we get back to Senator Hirono's point about agile combat employment, part of your ability to be able to move to win is your tactical lift. We are taking a fresh look at where do the C–130's live and how do they play relative to being able to move very quickly around a battlefield. I think that is going to become more important as we go forward.

Senator HAWLEY. Very good.

Let me ask you about the LRASM missiles. The fiscal year 2021 budget, General, says the Air Force is planning to buy, I think, 129 LRASMs between now and fiscal year 2025. I am just curious. Does the Air Force have any other advanced anti-ship weapons in its inventory besides the LRASMs?

General GOLDFEIN. That is the only one I can talk about in the unclassified realm, and I will tell you, sir, that the munitions story is actually a really good news story. Based on additional money that was given to us, we have been able to grow the munitions bins and some preferred munitions in ways that we have not done for years. Just to give you an example, in fiscal year 2018, we were at 44 percent for JDAMs. We are now at 88 percent. Just to give you an example of how we have done the munitions bins.

Senator HAWLEY. Let me ask you just about the LRASMs in particular. Considering the vital role that they play, particularly in defeating Chinese surface forces, do you think 129 is enough? Do we need to be buying more?

General GOLDFEIN. We always need to be buying more. Sir, I will tell you that we balanced that against all the other requirements. Right now, I will tell you that some of the lowest stock numbers we have are in air-to-air missiles, and so we have been focusing there recently.

Senator HAWLEY. Let me ask you—General, shifting topics just slightly. Over the last 5 years, the Air Force has, I think, pretty dramatically improved its ability to conduct distributed operations in the European theater. Is it fair to say that a lot of those improvements were made possible by the European Deterrence Initiative? Is that a fair statement?

General GOLDFEIN. Yes.

Senator HAWLEY. Can you just speak just briefly about how EDI has helped the Air Force adopt a more resilient posture in Europe?

General GOLDFEIN. So the Army focused on prepositioned stocks. We focused on access and basing because an air force is expected in the operational plan to arrive quickly because we can fly into theater, halt enemy activity, and stabilize the situation for follow-on activity. So therefore we need bases that we can operate from. So we put our money into access and basing, and that has allowed us to have a much larger footprint.

Senator HAWLEY. Thank you for that.

I will just say, Mr. Chairman, this is why I continue to believe that something similar to a dedicated funding stream is vital for INDOPACOM. Thank you.

Thank you, General. Thank you, Madam Secretary.

Senator WICKER. Thank you, Senator Hawley.

Senator King?

Senator KING. Thank you, Mr. Chairman.

I am not sure to whom to address this question, but I am curious about $77 million for Space Force OCO. I think of OCO as overseas contingency operations. Are we 77 million people up in space? I am just curious. What is the $77 million for OCO for Space Force?

Secretary BARRETT. Well, in just our conference, it seems likely that is places like Thule, the Arctic. Alaska is considered OCO, so those would be——

Senator KING. People manning space-related facilities? Is that what we are talking about?

Secretary BARRETT. So the space-related facilities and the manning of them.

Senator KING. If you could give me a little more robust information, I would appreciate it.

Secretary BARRETT. I would be happy to.

Senator KING. Madam Secretary, how are we doing on the sustainment cost of the F–35? Are we going to be able to afford to keep it?

Secretary BARRETT. It is one of the topics of great attention. It is being driven down, but it is, from our perspective, too slowly and still too high. We have a commitment that by the year 2025, it would be at $25,000 per hour, and we anticipate that that will be achieved.

Senator KING. But you continue to make this a priority? It is a serious ongoing issue. We are not going to be able to sustain this important asset indefinitely at the kind of costs that we are talking about now.

Secretary BARRETT. Agreed.

General GOLDFEIN. Sir, if I could jump in as well. I met with the CEO for Lockheed Martin and all the CEOs who are partners in this and told them that the current flying hour costs are unaffordable, and the sustainment enterprise was not scaled to the size of the fleet. So we worked through about a 3 to 4-month sprint both with the Joint Program Office and the company, and I went to Lockheed and walked through all the things they are doing in the sustainment enterprise. I will tell you that they made some significant changes to the point where I am more confident that we

are going to be able to drive to that lower flying hour cost than we were 6 months ago.

Senator KING. Could you supply for the Committee some data and material on this issue?

General GOLDFEIN. Yes, sir.

Senator KING. Because I think it is one we just do not want to let it get away from us.

General GOLDFEIN. I would be happy to.

Senator KING. Madam Secretary, I noticed there is an increase in end strength of about 1,500 people. I hope some of those are maintenance personnel because I understand that is a bottleneck in terms of readiness. How are we doing on maintenance personnel, techs to keep these airplanes flying?

Secretary BARRETT. Historically that has been a confining topic. Some good news is that in the Active Duty Force, our maintainers are up to speed. At this point, we are still working on the Guard and Reserve account.

Senator KING. How are we doing on recruiting? Are you meeting goals? General?

General GOLDFEIN. We are, sir.

The good news on that on the maintenance is we have actually filled in what was a 4,000 shortfall. We got that down to zero. We still have some work to do in the Guard and Reserve on maintainers.

When it comes to recruiting, we are meeting our numbers. One of the things we have done recently is we have gone to total force recruiting. We pooled Guard and Reserve and active into one recruiting command, and so now when you go to a strip mall, you do not see three different storefronts. You see one, United States Air Force. Because, quite frankly, for the Secretary and I, when a young man or woman wants to join the Air Force, we do not really care which component they join. They are joining us.

Senator KING. Because we have an integrated force in reality.

General GOLDFEIN. Because it is an integrated force.

Senator KING. Now, the Army is doing some work on diversifying the geography of their recruiting. As you know, in New England or in the northeast, there are very few military facilities left, and we really do not want the military to be regionalized. Are you attending to that issue?

General GOLDFEIN. We are, sir, and we are also looking at it especially through how do we hire civilians. You gave us authority to direct hire civilians faster, and so this is a competitive market. This is a fight for talent, and so now with those authorities, we are able to go to universities, many of them in New England, and direct hire folks into the Air Force. Especially I think as Chief Raymond looks at how he builds the Space Force, there are some really creative things that we might be able to do there with the authorities that you have given us.

Senator KING. I appreciate that, and if you need additional authorities or if there are other bottlenecks, let us know.

One final question. General Lyons was here a week or 2 ago and talked about the impending gap in refueling capacity, which he identified as one of the most serious threats that we face. We cannot project power unless we have refueling capacity. Is there a

plan? How are we going to meet that 5- to 7-year problem that appears to be imminent?

General GOLDFEIN. So the first thing is, in terms of mitigation, we have committed to him and the Secretary of Defense that if we were in a major contingency, every KC–46 would be put into the fight. We are comfortable that it is capable of doing operations in a high-end fight.

Senator KING. Even with the deficiency.

General GOLDFEIN. Even with the deficiency. I would not put it into day-to-day operations, but I would put it in a high end fight.

When we took a look at the retirement numbers, what we are talking about is 3 percent of the entire KC–135 fleet. We are managing risk across the board. We are managing shortages in bombers, tankers, ISR, fighters, command and control, and so tankers is one area that we are having to manage, and so that is why in the beginning, I mentioned that that was one of the most difficult decisions we had to make end game was to ask for us to take risk in the tanker business.

Senator KING. I appreciate—and I had asked some General Lyons some further backup on the plans——

General GOLDFEIN. Yes.

Senator KING.—because for want of a nail, the horse was lost—you know, the battle. We do not want to lose a battle because we cannot get our airmen and their horses to the battlefront.

General GOLDFEIN. Yes, sir.

Senator KING. Thank you.

Thank you, Mr. Chairman.

Senator WICKER. General, we talked about this earlier, and Senator King brought it back up. The Ranking Member and I are just wondering. The refueling can be done. It is just trickier?

General GOLDFEIN. Yes, sir. So I flew in the airplane twice, and let me describe it for you.

Senator WICKER. Did you do a refueling?

General GOLDFEIN. We did. Actually I refueled a C–17. I got to fly the remote visual system, got to see it in all different lighting conditions.

There are operational workarounds that allow me to tell you that I would put it in the fight, but I would not accept that aircraft today in terms of what we are paying the company to deliver, and so what happens is that the receptacle on the airplane, at the last 10 feet or so as you are now trying to connect with an airplane, the last 10 feet, it is difficult for the boom operator to actually focus in and see those last 10 feet. So we are seeing more strikes around the receptacle before it actually plugs in.

The worse case conditions would be blue skies, sun at your back because what happens is there is a glare that now bounces off the airplane that makes it harder to see. Well, you check about 20 degrees away, and you can mitigate that risk. But I ought not be having to mitigate that risk in daily operations. We ought to get what we paid for.

Senator KING. Mr. Chairman, I flew the boom on a tanker once.

Senator WICKER. That does not give me a comfort level.

Senator KING. No. It will because there was not another airplane attached.

[Laughter.]

Senator WICKER. If the other Senators will defer to Senator Reed.

Senator REED. Just to very briefly. There are two aspects to this. One if flying the tanker. The other is the aircraft that is approaching to refuel.

General GOLDFEIN. Right.

Senator REED. If we are not training on a regular basis these aircraft to refuel with the KC–46, to suddenly put it into the fight is not going to be particularly effective because all the other aircraft will be coming up there for the first time, and it will be a problem.

General GOLDFEIN. These airplanes, though, sir, will be involved in tests. So they will be doing refueling as we work through the tests of the fix that we are hoping to get to. So we would not be starting nor would I put a crew in that was not trained for the mission. In terms of mitigation on why we would retire some tankers, part of the mitigation is that we would put the KC–46 into the fight.

Senator REED. This is a continuing conversation, but the concern I have, just briefly, is that in the fight, which will be sudden and quick and now these aircraft, the KC–46, is suddenly a primary refueler, you would have literally hundreds of aircraft and pilots who have never approached this before. That is not the way you usually operate.

Senator WICKER. They would have in training. Would they not?

General GOLDFEIN. Yes, sir. But I will tell you if you are up at the receiver, quite frankly I have refueled on every different kind of tanker out there, plus I have refueled on remote visual systems off a Dutch tanker. When you are on the receiving end, all you need is a stable boom. Because you are training on refueling all the time, the boom is the boom is the boom. It is not going to matter that much for the receiver. We just got to make sure that when that fighter, bomber, what have you comes off and they are low on gas and they are in really bad territory like I have been that that connection happens and they get the fuel passed that they need.

Senator REED. Thank you.

Senator WICKER. Thank you for allowing us to interject there.

Senator Sullivan?

Senator SULLIVAN. Thank you, Mr. Chairman.

General Goldfein, I do want to thank you, like many others, for your exceptional service to our Nation. I think you are going to be sorely missed, and you really, really, really have done a great job. I do hope you come back, and I appreciated the breakfast and the briefings just a couple of weeks ago as well.

Madam Secretary, we look forward to getting you to Alaska, hosting you. The whole State is looking forward to having you up there. You will see why Billy Mitchell called it the most strategic place in the world, see our great airmen and JPARC. You can probably see Russia too if it is a clear day. So we are really looking forward to that.

I am going to continue the theme here on the KC–46. This might be a really dumb, basic question, but for now, just following up on this discussion we just had, like is there any way to just take the boom hardware from the KC–135? I mean, that works. You cannot

do that as an interim replacement until they figure out what the heck—you know, as Senator Shaheen said, time is of the essence. You said it. But 4 years does not seem like time is of the essence. Is there no fix to help? I mean, the KC–135 is a workhorse. It works pretty well.

General GOLDFEIN. Sir, there is no option to just swapping the boom because the boom is not the problem. The visual system that allows the boom operator to be able to connect with the receiver is the problem. So what we have to have——

Senator SULLIVAN. You cannot use a KC–135.

General GOLDFEIN. No.

Senator SULLIVAN. Okay.

General GOLDFEIN. No, because in the 135 there is a huge window in the back where the boom operator is laying down looking at——

Senator SULLIVAN. Let me ask on the other issue. You will not be surprised to hear my continuing advocacy on the issue, but it is not just me. On the OCONUS bed-down decision on the KC–46. You know, this Committee has weighed in in a number of NDAAs—so the Congress has weighed in because they become law—talking about characteristics. General Goldfein, I raised this in the last hearing. You know, strategic location, the ability to serve several COCOMs, how the air combat power, 24/7 NORAD mission that routinely intercepts Russian bombers, world class training, three Red Flag exercises a year, 100 fifth generation fighters, C–17, C–130's, F–16's. These are all characteristics that this Committee has said are important.

I just had breakfast this morning with the SECDEF. He in his confirmation hearing mentioned that you collocate 100 fifth generation fighters and KC–46's in a very strategic location, that would send the message of extreme strategic reach to our adversaries, particularly our great power adversaries.

Do either of you care to comment on this upcoming decision as it relates to these congressionally mandated characteristics, which certainly favor in my view one of the locations you are looking at?

Secretary BARRETT. My ability—in the line of decision-making, I will await the input and analysis. But those, no doubt, are going to be elements that will be considered.

Senator SULLIVAN. Thank you, Madam Secretary.

Just building on that—and again, General Lyons recently testified—it just last week I think. As you have already heard, he said the air refueling fleet—that is the most stressed capability and number one readiness concern, the ability to deploy the force across all national defense strategy mission areas.

Again, to me, if you put the KC–46's in a place that can strategically reach not just PACOM, but PACOM, EUCOM, STRATCOM, NORTHCOM, which is what Alaska presents, it helps with that stress. I think that is actually an important concern.

Would either of you care to comment on that? He did in the classified briefing, just for the record. You can take a look at what he said, which was I think along the lines of what I have been arguing.

General GOLDFEIN. No, sir. I would align with that.

Senator SULLIVAN. Madam Secretary, do you want to wave that one off too?

Secretary BARRETT. No further comment on it.

Senator SULLIVAN. Just as you are making the decision, take a look at his testimony also I think helps.

General Goldfein and Madam Secretary, I just want one final quick question on the JPARC and the fifth generation center of excellence. You know, I just asked my staff. I did not know that numbers are this big, but as you probably know, JPARC is 13 times larger than Nellis, and as we have increasing offsets that are needed for good training with the fifth generation aircraft and the ability to expand that air space, which in Alaska we are doing, and it is not that controversial as it is in the Lower 48 to expand air space. Can you comment on that?

General GOLDFEIN. Sure. I will just say it is critical strategic terrain, and the larger air space becomes more important as we end up engaging at longer ranges, which is what fifth generation is all about and what comes after that. So I see actually more of an effort to ensure that we can replicate the higher end threat at JPARC and Nellis and Utah in these ranges.

The good news is that software-defined radios are giving us more inexpensive ways of replicating higher end threats, which has been challenging in the past. So one of the things we are looking at right now is how do we scale very quickly in that range space to put a robust array out to be able to replicate a high end threat. I think over the next couple of years we are going to be able to do it.

Senator SULLIVAN. Great. Thank you.

Senator WICKER. Thank you, Senator Sullivan.

Senator Tillis?

Senator TILLIS. Thank you, Mr. Chairman.

Thank you both for being here, and, General Goldfein, I wish you the very best in what I hope is just a change of jobs, not a real retirement.

But I want to start back maybe on the KC–46. We know we are going to have some down at Seymour Johnson. We have got the hangar project. I know that it was originally slated for later this year—where we are with the hangar project, where we are with the deployment. There was one project that was affected with some of the reprogramming of the MILCON money. I think it was a relatively low dollar item, but I believe it did have to do with the ultimate deployment of the tankers. So if I can get an update on that, I would appreciate it.

General GOLDFEIN. Yes, sir. Right now I have not been briefed that it would have any impact on the bed-down timing, but let me take that to make sure. Can I get back to you?

Senator TILLIS. Yes. I know at the time that we were going through those discussions, it did not look like it was on the critical path. I would like to know when it would be as we work to backfill that funding. Thank you.

I know that we recently, I think as recently as last week, put out the tenant bill of rights for our military housing situation. It looks like it may be a good start, but there are some who feel like it needs to go further. Can you give me an update specifically with

Air Force, what progress we are making and what priority this is for you. Secretary Barrett?

Secretary BARRETT. It is a very high priority. My first visit as Secretary was to go to a base and to do a walk-through of housing. I have gone through a number of base housing facilities and have been very much involved in this process.

We signed out the bill of rights, but only 15 of the 18 elements. The three elements that were not on the bill of rights, in contrast with what were the directed 18, were three things that we could not unilaterally do. They were mandate the disclosure of maintenance records back 7 years. In some cases, there are not 7 years of records, so we have to work on that. The dispute resolution technique, because again in some cases the housing provider has bonds that they cannot reach in the dispute resolution process. The third item is withholding of the rent. So those three items we are working through as a contractual matter, and we will anticipate having solutions to those as well as time goes on.

In the meantime, we are withholding payments to these contractors, in some cases, significant amounts of payments. So there is a financial involvement. We I believe do have their attention at this point, and there is apparently a good faith effort to move this forward.

Senator TILLIS. Very good. After the NDAA, I know that you all tried to move forward with the promulgation of the tenant bill of rights. We are looking for feedback on additional things that we should put into this NDAA to help us get rid of what I think is an unacceptable situation with a lot of our military families in housing. So thank you for that.

One other parochial issue and if I have time, I may have one other question, otherwise I will submit it for the record. North Carolina has the most historically black colleges and universities is the Nation. We have 11. We have the largest at NCA&T, and we have the most affordable down at Elizabeth City State. They have got a program specifically focused on aviation science. They are doing a good job there. They have got a great collaboration with the Coast Guard. We are working right now to help out with maybe some runway upgrades, and they also have the college student precommissioning initiative there that I think has been very good for talent building.

One thing that I would be interested in getting your commitment to is just considering whether or not we could have an Air Force ROTC program down there, just to take a look at it. I had some of my staff down visiting with the chancellor recently. It is an impressive program. We have got a record of collaboration with the Coast Guard and I would like you all to give that a look. Can I get your commitment to take a look at that?

Secretary BARRETT. Full commitment.

Senator TILLIS. Thank you.

Last thing. I will submit the question I had on the EQ–4 and some movement to manned versus unmanned platforms for the record.

I got a great briefing from the Army on their taking advantage of some of the provisions in the NDAA around talent management. They look like they are really moving aggressively. Can you all give

me an idea of how we are going to look a year from now or in the coming months with the Air Force?

General GOLDFEIN. Sir, we are going through the largest overhaul of our officer talent management and enlisted talent management since about the early 1980s. So, not only are we using technology for the purposes of managing career paths, but we have busted the single line of the Air Force promotion category into six categories. We are defining what behaviors that we desire and what constitutes a competitive career for the purposes of promotion. So a year from now, it is not going to look anything like it does today.

Senator TILLIS. Good. If we can get an opportunity, I would love to have maybe a briefing in the office. I thought it was very helpful for us to do that. We can get into greater detail.

Thank you, Mr. Chairman.

Thank you both.

Senator WICKER. And thank you, Senator Tillis.

Thank you to our distinguished witnesses. We look forward to continue working with you.

This marks the conclusion of our hearing, and the hearing is now adjourned.

[Whereupon, at 11:37 a.m., the Committee adjourned.]

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR THOM TILLIS

TALENT MANAGEMENT

1. Senator TILLIS. Secretary Barrett, the National Defense Strategy called for "broad revision of talent management among the Armed Services." The Army has taken the lead on this effort by deploying its Talent Management Task Force. When should we expect to see a similar shift in Air Force culture and subsequent execution of Air Force talent management reform?

Secretary BARRETT. Over the past several years, the Air Force has implemented significant changes and new processes to its talent management system. Similar to the Army's Talent Management Task Force, the Air Force has the Talent Management Innovation Cell: a small, full-time team focused on creating innovative adjustments to policy and procedures to drive mission-focused behaviors and cultural change.

One of our first moves revolutionized the assignment matching process with a new platform called Talent Marketplace. Modeled after the Nobel Prize winning National Resident Matching Program (NRMP), this platform created greater transparency, agility, and responsiveness in how we manage assignments while increasing each airman's voice and optimizing how we develop and employ our talent.

Additionally, this past year we established six distinct competitive categories for active component field grade line officers. The new structure builds developmental agility to meet evolving mission needs, ultimately providing our joint partners and allies with better professional warfighters across our full spectrum of capabilities. The change also recognizes and caters to the need to deliver the appropriate education, training and unique career field experiences to build the bench of officers we need at all levels. This was the first major change to the officer development and promotion process since the establishment of the Air Force as a separate service in 1947.

Another significant change made last year was implementing a board only process by removing the testing requirement for enlisted personnel meeting E–7 thru E–9 promotion boards. This optimizes our ability to select the best senior noncommissioned officers based on the whole-person concept, with emphasis on performance. Similarly, for officers, this year we will exercise the authority to re-order officer promotion lists based on merit, helping us incentivize performance on a much greater scope than previously possible. Through all of this, we are modernizing our performance evaluation systems to better assess airmen according to what we value in per-

formance; provide better insight into performance through lifetime evaluator averages; and yield more transparent feedback to airmen.

AIR FORCE ROTC AT ELIZABETH CITY STATE UNIVERSITY

2. Senator TILLIS. Secretary Barrett, North Carolina has the most Historically Black College and University (HBCU) out of any state. Of our 11 HBCUs, Elizabeth City State University offers a four-year Bachelor of Science in Aviation Science Program that produces pilots, navigators, avionic technicians, and flight instructors to name a few. Elizabeth City State University and the U.S. Air Force could benefit in a myriad of ways with an Air Force ROTC Program. Do I have your commitment to consider establishing an Air Force ROTC program at Elizabeth City State University?

Secretary BARRETT. I am pleased to let you know this year Air Force Junior ROTC has partnered with Elizabeth City State University, enabling the Air Force to capitalize on the school's great aviation programs and continue to develop tomorrow's aviators. The Air Force is committed to diversity in our programs and currently has formal relationships with 46 HBCU's nationwide. This includes seven host Air Force ROTC Detachments and 39 cross-town relationships. North Carolina is well represented and leads in this area with two HBCU hosts (Fayetteville State University and North Carolina A&T State University) and six HBCU cross-town relationships.

ISR PROGRAMS

3. Senator TILLIS. Secretary Barrett, what is the replacement costs of the EQ–4 for a similar but manned platform, the EQ–11? Particularly, how is the MQ–9 Reaper and its longevity affected by this program replacement?

Secretary BARRETT. The cost to procure an E–11A Bombardier Global 6000 aircraft and integrate the Battlefield Airborne Communications Node (BACN) payload onto the aircraft is $101.9 million. There is no correlation between the E–11A and the MQ–9 mission sets, thus there is no impact to MQ–9.

The E–11A has multiple advantages over the EQ–4B to include operational flexibility allowing rapid deployments to anywhere in the world with a runway greater than 6,500 feet; the capacity to double its current payload size as new warfighter requirements emerge; and it has ample available power supply (four 40 kVA generators on E–11A versus one 25 kVA generator on an EQ–4B) to operate a larger and more capable payload. The EQ–4B requires time consuming mission planning and site setup to deploy, and it offers no additional space and power for equipment.

4. Senator TILLIS. Secretary Barrett, if we are expanding the mission set of EQ–11s, how will this affect their planned service life/longevity, lifecycle of logistics, and survivability?

Secretary BARRETT. The E–11 role will not significantly increase, even with the retirement of EQ–4 Block 20, since it flies the majority of BACN support today. Retiring the EQ–4 remotely piloted aircraft in favor of the E–11A manned platform consolidates the current mixed fleet. A single aircraft fleet will provide enhanced capability and improved reliability to combatant commanders and reduce operating costs. Our budget request procures five additional E–11A aircraft at a rate of one per year, purchases/integrates BACN payload capability, and provides initial maintenance and sustainment support as required. The E–11A is more suited to the BACN mission and is survivable in this role.

QUESTIONS SUBMITTED BY SENATOR RICK SCOTT

TYNDALL AIR FORCE BASE

5. Senator SCOTT. Secretary Barrett, can you give us an update on the rebuilding efforts at Tyndall AFB after the devastation of Hurricane Michael?

Secretary BARRETT. Rebuilding efforts at Tyndall Air Force Base are on schedule. We are spending over $362 million in Facility Sustainment, Restoration, and Modernization-funded, in-progress, repair projects, and the installation is transitioning from planning and design to acquisition of the $3 billion military construction program this spring. We expect to begin awarding construction contracts later this year. The Tyndall Program Management Office is closely monitoring what effects COVID–19 will have on reconstruction timelines; for now, reconstruction continues to proceed.

6. Senator SCOTT. Secretary Barrett, does the Air Force still plan to make the rebuilt Tyndall a more modern and technologically-advanced base, and do you have the resources for that?

Secretary BARRETT. We will rebuild Tyndall Air Force Base as the Air Force's first Twenty First Century Installation. The base will benefit from modern construction techniques and the rebuild will incorporate advanced technologies. The end state will result in an installation resilient to future climatic threats. Presently, the Air Force is resourced to deliver the new Tyndall Air Force Base, but will keep Congress informed as contractor bids open this summer.

MILITARY HOUSING

7. Senator SCOTT. Secretary Barrett, can you give me an update on the base housing problems and how the solutions are working out to date?

Secretary BARRETT. The most important part of taking care of our airmen and space professionals and their families is providing a safe, secure environment for them to live and work. We continue to work closely with the Office of the Secretary of Defense and the other Services to share ideas, develop policies, and implement strategies to improve housing for our Service Members. Since my 3 December 2019 hearing before this Committee, we have taken a number of steps to address housing concerns through our Military Housing Privatization Initiative Improvement Program. This program includes five lines of effort: empower residents, integrate leadership, improve communications, improve oversight, and standardize policies. Air Force leadership reviews a 51 item action plan on a weekly basis and we have addressed 38 (74 percent) of the actions to date. We will complete nine additional items in 2020, and complete the final four by March 2021.

Empower Residents

As of 3 April 2020, the Air Force toll-free housing call center has received 49 calls from residents and has resolved all but one issue, which is still being worked. As of 1 April 2020, residents of 61 of our 63 installations can submit work orders electronically, and residents at 60 of our 63 installations can view the current status of their work order requests online. We are working with the other project owners to provide those capabilities at the remaining sites.

In our fiscal year 2020 budget, we added a Resident Advocate position at each installation with more than 100 housing units. We classified and funded these positions in January 2020, and installations are currently in the process of hiring.

Integrate Leadership

We continue to emphasize that the health and safety of members is commander's business and we have codified commander roles and responsibilities in the new Air Force Instruction on housing published on 18 March 2020.

Additionally, the Air Force is negotiating a revised incentive fee structure that raises the bar for project performance and provides a greater voice to installation commanders in determining whether project performance warrants the payment of incentive fees.

Improve Communications

The Air Force is revising the annual resident satisfaction survey to ensure residents are being asked consistent and precise questions about their experiences with privatized housing. Effective this year, the Air Force, rather than project owners, will administer the annual resident satisfaction survey, thereby allowing the Air Force greater visibility into the survey process and results.

The Air Force revised its housing policies to require clear identification of the Military Housing Office staff, established Resident Councils, and clarified roles and responsibilities of the Air Force Military Housing Office personnel, project owner personnel, and Resident Advocates.

Improve Oversight

Our fiscal year 2020 budget also adds 148 new permanent positions for the Military Housing Offices to provide additional oversight of the entire privatized housing portfolio. Those new positions have been added to the installation's unit manning documents and hiring is underway.

Quality and Performance Challenges

In October 2019, the Air Force directed Balfour Beatty Communities, LLC (BBC) to submit a performance improvement plan to address its maintenance and work order practices at each of the 21 Air Force installations it manages. The Air Force approved the plan in February 2020, and the Air Force will hold face-to-face progress reviews of the plan to ensure compliance and meaningful implementation and improvement.

We have identified a fourth installation where facility design, construction, or materials are a key contributor to moisture and mold growth: Randolph Air Force Base,

Texas. The Air Force now has additional oversight resources at four installations—Randolph Air Force Base, Texas; Tinker Air Force Base, Oklahoma; Keesler Air Force Base, Mississippi; and MacDill Air Force Base, Florida—to assist in ongoing housing quality improvement efforts.

At MacDill Air Force Base, Clark Realty has experienced systemic moisture issues due to breaches or a lack of vapor barriers in 241 housing units constructed by the Air Force prior to privatization. Since 2017, Clark Realty has treated the mold and completed $4.7 million in repair projects to correct the underlying causes of systemic moisture issues in 294 homes. An additional 68 homes are scheduled for repair with work to be completed in 2022 at a cost of $6.8 million. Additionally, the Air Force has put a Corrective Action Plan in place at MacDill to address work quality issues.

8. Senator SCOTT. Secretary Barrett, the Tenant's Bill of Rights falls short of the expectations we laid out in last year's NDAA. Air Force families in Florida have faced and are still facing numerous problems with base housing. What are you doing to make sure military families are being fully supported?

Secretary BARRETT. On February 25, 2020, I joined the Secretary of Defense and the Secretaries of the Army and Navy in jointly issuing the Military Housing Privatization Initiative Tenant Bill of Rights. In doing so, we committed to work expeditiously to develop the processes to implement 15 of the 18 tenant rights established by the Fiscal Year 2020 NDAA, to work with the project owners to incorporate these rights into appropriate legal documents, and to ensure all tenants are aware of their rights. Fourteen of these fifteen tenant rights are now available to our tenants. The remaining right is an electronic work order system for tenant requests; this capability is available at 61 of 63 Air Force installations and will be available at the remaining two installations by 1 October 2020. The remaining three rights require additional work. Specifically, maintenance history, dispute resolution, and withholding of rent present implementation challenges as they require project owner, bond holder, and investor consent. We are also working closely with the DOD, the other Services, and project owners in an effort to implement these rights as expeditiously as possible.

Since my 3 December 2019 hearing before this Committee, we have made progress on several additional measures to ensure military families have safe and habitable housing. Perhaps most significantly, in our fiscal year 2020 budget and as supported by the NDAA, we have added a Resident Advocate position at each of our installations with more than 100 housing units to assist our military residents with disputes, to connect them to the proper resources for their various needs, to include Exceptional Family Member Programs, and to communicate their needs to the installation leadership team. These positions were classified and funded in January and installations are in the hiring process at this time.

Our fiscal year 2020 budget also added 148 permanent positions to our Military Housing Offices to provide additional oversight of the privatized housing portfolio. Those positions have been added to the installation's unit manning documents and they are hiring the permanent personnel at this time.

The Air Force toll free housing call center has been in place since May 2019 and as of 3 April 2020 has received 47 calls from residents, resolving all but 1 issue which is still being worked.

We have also been working with project owners to ensure residents can submit work orders electronically and can view the status of their work order requests. As of 1 April 2020, residents of 61 of 63 installations can submit work orders electronically and residents at 60 of our 63 installations can view the current status of their work order requests on-line. We are working with other project owners to provide these capabilities at the remaining sites.

Finally, the Air Force has developed a pamphlet for housing residents that provides information on dispute resolution resources (to include legal assistance), clarifies the availability of legal assistance, and provides contact information for legal assistance. Additionally, on 1 May 2020, the Air Force implemented an interim policy on displaced families.

As we move forward in this endeavor, our focus will remain on oversight, sustainment, and the long-term success of the privatized housing portfolio in order to provide safe and healthy housing for our air and space professionals.

QUESTIONS SUBMITTED BY SENATOR JOSH HAWLEY

ISR–T

9. Senator HAWLEY. General Goldfein, what are the Air Force's plans for developing an ISR architecture that is persistent and resilient enough to provide targeting data for large numbers of targets near Taiwan in the early days of a potential war with China?

General GOLDFEIN. The Air Force has developed a Sensing Grid Concept as part of its development efforts for Joint All-Domain Operations. The concept includes the need for a resilient architecture that supports numerous targets in a wide range of scenarios and integrates data from an assemblage of sensors, platforms, people, devices, content, and services. This architecture will deliver accurate and timely characterization of the environment, to include identification and tracking of targets, enabling the Joint Force to maintain decision advantage during joint operations. In order to fully build out the concept, we are evaluating technologies against a range of threats in a range of scenarios through studies, modeling and simulation, experiments, and recurring combatant command-sponsored demonstrations. As our "build, demonstrate, and adapt" approach is getting underway, it will help us realize a Sensing Grid and Joint-All Domain Command and Control vision preparing the USAF for the next war rather than for a specific war.

10. Senator HAWLEY. General Goldfein, what is the right mix of stealth and attritable assets in an ISR architecture that is persistent and resilient enough to provide targeting data for large numbers of targets near Taiwan in the early days of a potential war with China?

General GOLDFEIN. The Air Force has developed a Sensing Grid Concept as part of its development efforts for Joint All-Domain Operations. The concept will also require a yet undetermined mix of stealth, attritable, and manned/unmanned platforms to characterize numerous targets in an equally wide range of scenarios. We are evaluating technologies against various threats in a range of military operations under various environmental constraints. Studies, modeling and simulation, experiments, and recurring combatant command sponsored demonstrations will inform what the right mix is to enable the Sensing Grid concept and Joint-All Domain Command and Control vision. This will prepare the USAF for the next war rather than for a specific war.

ADVANCED ANTI-SHIP WEAPONS

11. Senator HAWLEY. General Goldfein, what advanced anti-ship weapons does the Air Force have in its inventory besides LRASM?

General GOLDFEIN. Long Range Anti-Ship Missile (LRASM) is the only anti-ship weapon in the Air Force inventory.

12. Senator HAWLEY. General Goldfein, how many non-LRASM advanced anti-ship weapons does the Air Force have or plan to procure within the FYDP?

General GOLDFEIN. The Air Force does not plan to procure additional non-LRASM advanced anti-ship weapons within the FYDP. LRASM is the sole anti-ship weapon the Air Force is procuring.

QUESTIONS SUBMITTED BY SENATOR RICHARD BLUMENTHAL

F–35A

13. Senator BLUMENTHAL. Secretary Barrett, given the importance of the F–35A for the Air Force, I was pleased to see that the Air Force included procurement funding for 12 additional F–35A aircraft on its unfunded priorities list. But if the F–35A is such a priority, why is the Department diverting $156 million in F–35A advanced procurement funding—already appropriated by Congress in fiscal year 2020—to the border wall?

Secretary BARRETT. Although the Air Force cannot speak to OSD priorities, the $156 million for F–35A advanced procurement were un-executable fiscal year 2020 dollars and therefore had no significant impacts on F–35 procurement timelines.

14. Senator BLUMENTHAL. Secretary Barrett, how will this diversion increase risk to procurement timelines for the F–35A?

Secretary BARRETT. We do not foresee any increased risk to procurement timelines.

15. Senator BLUMENTHAL. Secretary Barrett, how will this impact the readiness of our fifth-generation fleet?

Secretary BARRETT. We do not foresee any impacts to the F–22 or F–35A fleets at this time.

16. Senator BLUMENTHAL. General Goldfein, as adversaries like Russia and China build their 5th generation aircraft inventories, do you believe the air superiority the Air Force has previously enjoyed is challenged?

General GOLDFEIN. While adversary build-up of 5th generation aircraft doesn't preclude our ability to gain and maintain air superiority in and of itself, it does change the landscape and we should be mindful. Conceptually speaking, air superiority is much more involved than just aircraft platforms. This is why we remain focused on developing a family of capabilities that operate in and across the air, space, and cyberspace domains, so that we can wield air superiority at a time and place of our choosing.

17. Senator BLUMENTHAL. General Goldfein, can you expand on the role and capability that a 5th generation tactical fighter aircraft like the F–35A provides in a near peer fight?

General GOLDFEIN. The role and capabilities of the F–35A and F–22 are critically important to U.S. success in a near peer fight. These weapons systems enable air dominance in highly contested battlespaces that challenge our legacy fleet. Fifth generation aircraft use stealth to enable freedom to maneuver where legacy systems cannot, and use sensor fusion to quickly and accurately locate and identify threats and increase battlespace awareness across multiple domains. All these capabilities are essential to enhance our lethality across the Joint operational spectrum.

18. Senator BLUMENTHAL. General Goldfein, can you expand on how our allies acquiring the F–35 facilitates interoperability, and strengthens our ability to deter and respond to the growing 5th generation fighter threat?

General GOLDFEIN. Integrated operations with allies and partners that employ the F–35 will be dramatically more lethal, survivable, and sustainable. A highly capable and connected force that can train and fight together with common capabilities and tactics is critical to outpacing and deterring our advancing adversaries.

19. Senator BLUMENTHAL. General Goldfein, within our own Joint Force construct, can you speak to the capabilities gained by all the services moving to an F–35 variant and what advantages that affords us on the battlefield?

General GOLDFEIN. The F–35 is the quarterback of the joint force, using stealth and sensors to provide battlespace awareness for Joint, all-domain operations. With all three Services operating the F–35 we can deploy from main and forward operating air bases, the deck of an aircraft carrier, an amphibious assault ship, or takeoff from austere locations and provide the Joint Force integrated fifth-generation combat power virtually anywhere on the globe.

20. Senator BLUMENTHAL. Secretary Barrett, can you provide an update on the plan to improve the Advanced Pilot Training program and ensure our 5th Generation pilots remain ready and capable of operating the F–35A?

Secretary BARRETT. The Air Force is actively pursuing innovations to modernize pilot training in light of the changing capabilities provided by 5th generation aircraft, as well as changing student learning methods and adaptation of technology to learning. The Advanced Pilot Training program (APT–X) explores how incorporating the T–7 into undergraduate pilot training drives instructional changes. APT–X is in the developmental phase, currently focused on developing syllabus requirements. Rather than simply plugging the T–7 into the existing training structure, adapting instruction to the new aircraft capabilities will enable undergraduate pilot training to prepare students to meet changing operational needs.

C–130H MODERNIZATION

21. Senator BLUMENTHAL. Secretary Barrett, last week, TRANSCOM Commander Gen Lyons testified that 60–70 percent of TRANSCOMs mobility capacity resides in the reserve component, including 50 percent of all tactical airlift. In 2006, the Air National Guard began exploring a modernization effort to install the NP–2000 propeller system made by Collins Aerospace in Windsor Locks onto the C–130H aircraft to modernize an outdated propulsion system. Over a decade later, the NP–2000 program has been implemented at a snails pace. As you know, the legacy propellers are the same propellers that failed on a Marine Corps KC–130T in 2017 causing

the death of 17 of our servicemembers. Last year, I sent a letter along with 16 of my Senate colleagues to the department of the Air Force asking you to expedite the approval of the new blades for the Air National Guard C–130H fleet. The current modernization pace will have this effort completed by 2034, considering the risk and proven undependability of the legacy system, this is unacceptable. In light of previous mishaps and the subsequent revelation of the serious risk to our Air Force C–130H aircrews while flying the legacy propeller, what is the proposed timeline for installation of the NP–2000 propeller on the C–130Hs like the ones we have in Connecticut?

Secretary BARRETT. Currently the NP2000 program is approved to produce, install, and sustain 44 total C–130H aircraft. The Air Force has already modified 12 aircraft. NP2000 installations for the remaining 32 aircraft started in March 2020, beginning with the Air National Guard unit in Reno, Nevada. Modification schedules are based on deployment timelines and mission profiles. At current funding levels, we project completing these remaining 32 aircraft in fiscal year 2022. If we continue to receive funding at the current rate beyond that, we are projected to complete NP2000 installs on the remainder of the C–130H fleet (up to 115 additional aircraft) in fiscal year 2034.

22. Senator BLUMENTHAL. Secretary Barrett, due to the risk associated with the legacy propeller, would you support an increase to 3–4 aircraft per month if Congress appropriated additional funding to support the increased production costs?

Secretary BARRETT. Should congress appropriate additional funds, it is possible the Air Force could accelerate the modification.

23. Senator BLUMENTHAL. General Goldfein, the fiscal year 2021 President's Budget plans to retire 45 C–130Hs and 5 squadrons—4 in the Guard and 1 in the Air Force Reserves. What are the impacts to TRANSCOM's ability to meet the 300 tactical airlift identified by the Mobility Capability Requirements Study as required to meet the National Defense Strategy?

General GOLDFEIN. The Mobility Capabilities and Requirements Study 2018 (MCRS–18) identified the current fleet of 300 Total Aircraft Inventory (TAI) as "sufficient" to meet the requirements of the National Defense Strategy (NDS). Within all AF core functional areas (as directed/guided by the NDS) there is a spectrum of risk that can be assessed based on simultaneity, theater specificity, and joint/coalition collaboration. Theater risk thresholds are currently being refined and will inform the congressionally mandated MCRS–20. United States Transportation Command (USTC) and the Air Force are working in concert to balance the risk we take in reducing the tactical airlift fleet with being able to reasonably meet NDS intent and theater requirements.

The AF's decision to reduce the tactical airlift fleet below 300 TAI is based on taking an acceptable amount of risk within this mission set (as established by MCRS–18 and as anticipated by MCRS–20 preliminary findings) as well as the need/direction to focus resources on the future force and near-peer competition.

24. Senator BLUMENTHAL. General Goldfein, can you expand on the rationale behind this decision and what risk is being assumed?

General GOLDFEIN. The NDS has provided clear guidance that our focus should be on winning the future fight against near-peer competition, and that we should not be funding programs on legacy platforms that do not contribute to that guidance. Specifically stated "we cannot expect success fighting tomorrow's conflicts with yesterday's weapons or equipment" (NDS, pg. 8)

Investing in capabilities to win future high-end competition requires the Air Force to take risk in force structure that has a less defined role in high-end competition. Given the current capability of the tactical airlift fleet, the AF is taking a measured amount of acceptable risk that we believe is excess capacity in terms of the fleet's contribution to the future fight.

C–130J FUNDING DIVERSION TO BORDER WALL

25. Senator BLUMENTHAL. Secretary Barrett, in addition to my concerns about C–130H modernization and the need for upgraded NP2000 propellers in order to improve the safety of our Air National Guard aircrews, I am also deeply concerned about the diversion of congressionally-appropriated fiscal year 2020 funds for the C–130J. One hundred sixty-nine million dollars that will go to the border wall, instead of two cargo planes for the Air National Guard. The Adjutant General in Connecticut—General Evon—expressed that this diversion will negatively impact the Connecticut National Guard, and unfairly disadvantage the Air National Guard as

a whole. In addition to supporting the tactical airlift required to meet the needs of the National Defense Strategy, the Air National Guard provides a unique capability to provide domestic support during natural disasters. What is the impact of the recent decision to divert $169 million of C–130J procurement funding to the border wall on the readiness and capabilities of the Air National Guard?

Secretary BARRETT. The diversion of C–130J procurement funding reduces the total from four aircraft to two. That change essentially delays the Air National Guard's ability to recapitalize a fourth operational C–130H unit to the C–130J. A basing action currently underway in the Air Force's Strategic Basing Process will recapitalize three of the ANG's existing 13 operational C–130H units.

Each Air National Guard operational squadron is currently comprised of eight total aircraft; seven Primary Aircraft Authorized (PAA) and one Backup Aircraft Inventory (BAI). Thus, a minimum of seven (eight preferred based on training/readiness, mission taskings and depot/modernization) is required in order to recapitalize a unit. Procurement totals below this threshold can still be fielded as BAI at existing ANG C–130J units and contribute to aircraft availability and unit readiness. Mixing C–130Hs & C–130Js at the same unit is not feasible since C–130H and C–130J aircraft have significant differences and separate qualifications for Operations and Maintenance personnel.

26. Senator BLUMENTHAL. General Goldfein, how will this decision degrade our ability to meet the 300 tactical airlift requirement identified to execute the National Defense Strategy?

General GOLDFEIN. The diversion of C–130J procurement funding reduces the total from four aircraft to two. That change essentially delays the Air National Guard's ability to recapitalize a fourth operational C–130H unit to the C–130J. A basing action currently underway in the Air Force's Strategic Basing Process will recapitalize three of the ANG's existing 13 operational C–130H units.

Each Air National Guard operational squadron is currently comprised of eight total aircraft; seven Primary Aircraft Authorized (PAA) and one Backup Aircraft Inventory (BAI). Thus, a minimum of seven (eight preferred based on training/readiness, mission taskings and depot/modernization) is required in order to recapitalize a unit. Procurement totals below this threshold can still be fielded as BAI at existing ANG C–130J units and contribute to aircraft availability and unit readiness. Mixing C–130Hs & C–130Js at the same unit is not feasible since C–130H and C–130J aircraft have significant differences and separate qualifications for Operations and Maintenance personnel.The Mobility Capabilities and Requirements Study 2018 (MCRS–18) identified the current fleet of 300 TAI as "sufficient" to meet the requirements of the NDS. Within all Air Force core functional areas (as directed/guided by the NDS) there is a spectrum of risk that can be assessed based on simultaneity, theater specificity, and joint/coalition collaboration. Theater risk thresholds are currently being refined and will inform the congressionally mandated MCRS–20. United States Transportation Command (USTC) and the Air Force are working in concert to balance the risk we take in reducing the tactical airlift fleet with being able to reasonably meet NDS intent and theater requirements.

The AF's decision to reduce the tactical airlift fleet below 300 TAI is based on taking an acceptable amount of risk within this mission set (as established by MCRS–18 and as anticipated by MCRS–20 preliminary findings) as well as the need/direction to focus resources on the future force and near-peer competition.

27. Senator BLUMENTHAL. General Goldfein, will this cut in funding impact the C–130H modernization efforts?

General GOLDFEIN. No. This TAI reduction does not change the Air Force's four-pronged approach to C–130H modifications (safety, compliance, modernization, partial recapitalization).

28. Senator BLUMENTHAL. General Goldfein, given the constrained fiscal environment and recent cuts to the C–130J program, would you agree that C–130H modernization and the installation of the NP–2000 is a good way to meet National Defense Strategy requirements?

General GOLDFEIN. The NP–2000 propeller does not affect the Air Force's ability to meet the requirements of the National Defense Strategy.

HYPERSONIC RESEARCH AND DEVELOPMENT

29. Senator BLUMENTHAL. Secretary Barrett, both Russia and China are developing credible hypersonic weapons programs that present significant challenges to the United States ability to maintain strategic deterrence. The fiscal year 2021

President's Budget allocates $3.2 billion towards the development of hypersonic weapons. The Navy, Army, and Air Force are all involved in the development of hypersonic weapons, including the Air Force's Hypersonic Conventional Strike Weapon and the Air-launched Rapid Response Weapon. I am fully supportive of maintaining our qualitative edge in this technology, and accelerating hypersonic defense capabilities. From an oversight perspective, the rapid growth in hypersonic research has the potential to result in stove-piped, proprietary systems that duplicate capabilities and increase costs. I am very interested in how these efforts are being economized, how information is being shared between services, and your thoughts on the role hypersonic should play in the future of our National Defense Strategy. Given the lack of defined mission requirements for hypersonic weapons, can you speak to how the Air Force is conducting responsible and coordinated research, development, training, and evaluation to ensure that there are not redundant efforts in development and cost?

Secretary BARRETT. The Department of the Air Force (DAF) is committed to minimizing redundant efforts in research, development, training, and evaluations by collaborating with the Department of the Army (DA), Department of the Navy (DON), Missile Defense Agency (MDA), Defense Advanced Research Project Agency (DARPA), and Office of the Secretary of Defense (OSD). The Air-launched Rapid Response Weapon (ARRW), our flagship hypersonic weapon prototype program, is built upon a hypersonic glide vehicle made possible through decades of Air Force Research Laboratory (AFRL) Science and Technology (S&T) investment most recently matured through a joint AFRL/DARPA Tactical Boost Glide advanced development demonstration program. The ARRW program is dependent on the success of the Tactical Boost Glide program to deliver the glide vehicle which is concurrently being integrated with a tactical booster and warhead to demonstrate and deliver an operationally relevant prototype by fiscal year 2022. As part of the DAF/DARPA efforts, an Executive Steering Group has been developed to ensure an efficient transition of the glide vehicle design and test data to the ARRW prototyping program.

To reduce the risk, the Air Force invested in a second hypersonic prototype, the Hypersonic Conventional Strike Weapon (HCSW). This prototype was based on the flight-tested OSD Conventional Prompt Strike (CPS) Hypersonic Glide Vehicle and is also the basis of near term Army and Navy Hypersonic Weapon programs. To ensure cooperation and reduction in duplication or competition for scarce resources across the Services, the DAF signed a Memorandum of Agreement (MOA) between OSD, DA, DON, DAF, and MDA for Hypersonic Boost Glide Technology Development. The MOA created a multi-service and agency board of directors that has resulted in a sharing of knowledge, analysis, and test results, as well as early industry involvement to transition laboratory designs to industry for the CPS Hypersonic Glide Body. In fiscal year 2020, the DAF made a decision to halt HCSW after conclusion of the Critical Design Review and focus resources on ARRW. With the decision to halt the HCSW program, the DAF continues to support the Army Hypersonic Project Office by developing co-use agreements for the accredited HCSW classified Local Area Network/Wide Area Network and development infrastructure that currently connects the prime contractor Lockheed Martin facilities at Sunnyvale, Denver, and Huntsville.

Additionally, the DAF works closely to harmonize S&T investments, critical test infrastructure investments, and lessons-learned across on-going hypersonics programs across the DOD.

30. Senator BLUMENTHAL. General Goldfein, what are you doing to develop and implement an integrated science and technology roadmap for hypersonics that promotes information sharing?

General GOLDFEIN. The DAF has a robust continuing investment in S&T as well as a targeted acquisition-focused weapon prototype program. The Air Force Research Lab's (AFRL) High Speed Strike Weapon (HSSW) Technology Maturation portfolio manages a deliberate technology and experimentation investment in hypersonics. For example, in HSSW, AFRL is investing in multiple enabling technologies such as tactical solid rocket boosters; air-breathing hypersonic propulsion systems; fuzes for hypersonics applications; and guidance, navigation, and control components for hypersonic vehicles. These investments also include advanced technology demonstrations such as the AFRL/DARPA Tactical Boost Glide and the AFRL/DARPA Hypersonic Air-Breathing Weapon Concept development demonstration program.

Furthermore, the DAF is working with OUSD(R&E) on the completion of the Hypersonics S&T Roadmap. The effort includes the combined S&T activities throughout the DOD from DAF, DA, DON, MDA, and DARPA to minimize duplication of efforts and ensure the services are informed investors across the FYDP.

Finally, the DAF is working with academia and international partners to ensure collaboration amongst our national academic institutions and with our allies. In the S&T community, the Air Force Office of Scientific Research is leading the way with the Boundary Layer Transition (BOLT) project which looks to provide better design tools for hypersonic vehicles. BOLT consists of researchers from universities, NASA, and international partners such as The German Aerospace Center. Additionally, the DAF is partnering with OSD's Allied Partner Initiative to further develop the AFRL/DARPA Hypersonic Air-Breathing Weapon Concept demonstrator towards a scramjet powered hypersonic weapon prototype.

31. Senator BLUMENTHAL. General Goldfein, how do you assess that the fielding of offensive hypersonic weapons affect strategic stability?

General GOLDFEIN. Strategic stability fundamentally depends on the ability of the United States and its strategic competitors, China and Russia, to either deny the benefit of aggression or impose unacceptable costs. The nuclear deterrent capabilities of the United States, China, and Russia are the basis of strategic stability. My assessment is hypersonic weapons are unlikely to impact the effectiveness of our or their nuclear deterrence postures, and that strategic stability will be sustained even as hypersonic weapons are fielded.

32. Senator BLUMENTHAL. Secretary Barrett, what more do you think that Congress should be doing to ensure that we are keeping pace with our near peer adversaries in hypersonics? Do you agree that we are approaching a "hypersonics arms race" with Russia or China?

Secretary BARRETT. Though the United States has a long history in hypersonic research and development, we may no longer maintain the technological advantage to field the first operational hypersonic weapon. China and Russia are developing and testing their own hypersonic weapons and are close to fielding an operational capability.

The Air Force needs steady and predictable funding for the ARRW to stay on track to deliver an early operational capability in Fiscal Year 2022, which we anticipate will be the Nation's first operational hypersonic weapon.

QUESTIONS SUBMITTED BY SENATOR MAZIE HIRONO

AIR FORCE POWER PROJECTION

33. Senator HIRONO. General Goldfein, please explain the concept of Agile Combat Employment.

General GOLDFEIN. Agile Combat Employment (ACE) is an operational concept, first championed by PACAF and now evolved across every MAJCOM, which enables distributed employment of air power. ACE focuses on the ability to disperse, recover, and rapidly resume operations in a contested or austere environment. It involves rapid deployment to a variety of locations, and involves a fusion of operations with command and control, logistics, protection, and base operating support functions. It is a modern effort facilitating a shift away from the hyper-efficient, specialized operations of recent decades towards the redundancy, resiliency, decentralized control and decentralized execution required to enable an effective campaign against a near-peer adversary.

34. Senator HIRONO. Secretary Barrett, regarding Agile Combat Employment, what nations in the Pacific theater have been approached thus far as possible locations for these forward projected teams and assets?

Secretary BARRETT. At this time, we are examining and refining potential location options through analysis and wargaming support. Factors in play in the trade space are bases, force structure, platform ranges and Air Base Defense design among other factors. That said, the Air Force has already engaged key allies and partners like the FVEYs, Japan, Republic of Korea, and Singapore to discuss the Concepts of Operations for Agile Combat Employment and where opportunities may exist for aligning concepts and capabilities.

35. Senator HIRONO. General Goldfein, will the Hawaii Air National Guard receive KC–46s or KC–Y/Z as backfills for their current 8 KC–135s?

General GOLDFEIN. The Hawaii Air National Guard is not slated to recapitalize within the first 179 KC–46As.

36. Senator HIRONO. General Goldfein, if not, what is the replacement or recapitalization plan for the 8 KC–135s the Hawaii Air National Guard operates?

General GOLDFEIN. The KC–135 aircraft will continue to remain a critical part of our tanker inventory for the foreseeable future. Across the total force, we will work to ensure the KC–135s are modernized. This effort includes all Total Force units, to include the Hawaii Air National Guard.

SUICIDE RATES IN THE AIR FORCE

37. Senator HIRONO. Secretary Barrett and General Goldfein, the Air Force had 137 suspected suicides last year, the highest number since the service began tracking suicide in 2008. This 2019 figure includes Active Duty, Reserve, Guard and Air Force civilians and compares to 103 suicides across the service in 2018 a 33 percent increase. The report noted that aircraft maintenance and security forces are consistently the career fields with the highest number of suicide deaths. I understand you have been beta testing the "True North Task Force" on a few bases. What does this task force do?

Secretary BARRETT and General GOLDFEIN. The Air Force takes the physical and mental health of our airmen and space professionals seriously and is committed to suicide prevention. Airmen, space professionals and their families face various situations that impact their Comprehensive Airman Fitness (physical, mental, social, and spiritual). We seek to provide our forces with the resources and culture to seek help and successfully decrease the risk of harming themselves and others, increase mission readiness, and ultimately save lives.

In December 2016, Task Force True North was created to beta test initiatives that bring resiliency resources closer to our airmen and drive a culture that accepts, embraces, and drives help-seeking behavior. The three primary elements of the concept are to 1) engage forces and families early; 2) normalize help-seeking behavior as a strength; and 3) decentralize—push help to where our forces are (at the squadron or group).

The Task Force identified four beta test installations. At the Maintenance Groups and Mission Support Groups at each of those installations, they embedded a contract Licensed Clinical Social Worker at each squadron, a contract Mental Health Technician at each group, and a Religious Support Team (a Chaplain and Religious Affairs Airman) at each group. Additionally, they installed an installation Program Manager at the Wing, and provided funding assistance to create an integrated installation Welcome Center with Wing Commander-owned sponsorship and on-boarding program.

In September 2018, the Air Force Community Action Board, Chaired by the VCSAF, directed the Task Force to begin program actions to initiate a DAF wide expansion beginning in fiscal year 2021. The first expansion set in fiscal year 2021 rolls it out fully to all four beta test installations and targets an additional 12 installations. The fiscal year 2021 budget begins a long effort to scale the program across the DAF. The key to scaling the program is two-fold: 1) identify the installations within the DAF with the historically highest risk for negative outcomes; and 2) identify the unit types within the DAF with the historically highest risk for negative outcomes. The roll-out begins at the top of the installation priority list and couples that with the highest priority units and builds the embedding effort to fill those unit needs first. Once those highest priority units are addressed in the first group of expansion installations, the roll-out progresses to the next highest priority units at those installations, and so forth.

38. Senator HIRONO. Secretary Barrett and General Goldfein, have there been any indicators of success thus far?

Secretary BARRETT and General GOLDFEIN. The True North team has certainly reflected indicators of success. True North Team's impact is assessed in two ways: 1) output numbers of airmen seeking help; and 2) a qualitative assessment provided by the RAND Corporation.

The output numbers are collected via monthly reports submitted by the embedded mental health providers and the Religious Support Teams at each installation. These monthly reports reflect the immediate impact of embedded behavioral health providers, demonstrating a clear demand signal on the part of our personnel. Although anticipated that it could take up to 6 months for personnel to begin engaging the services of the embedded provider, reports from some units reflected that within a month unit personnel were waiting in line to speak with the embedded provider. By the one year point, across the 12 groups in the beta test, the embedded Licensed Clinical Social Workers were conducting 300–600 individual engagements per

month, spending 240–385 hours per month in counseling sessions. Likewise, the Religious Support Teams were conducting 170–270 individual engagements per month.

The key issues addressed by the embedded providers and the Religious Support Teams were: relationships, anxiety, depression, life skills, work stress, coping skills and substance (i.e. alcohol) use. Engaging these types of issues early—before they become toxic—is critical to reducing negative outcomes such as suicide, domestic violence, workplace violence and child maltreatment.

Additionally, the DAF contracted RAND to conduct a qualitative analysis of the beta test impact. After interviewing leadership (squadron, group and wing), providers, and airmen, they concluded there was great value in the combined effect of the welcome centers, mental health providers and spiritual providers. The DAF is awaiting release of the final report.

Other indicators of success, such as genuine decreases in negative outcomes, lasting culture change, and potential decreases in long-term VA care costs, must be measured over many years and the data are therefore many years away.

39. Senator HIRONO. Secretary Barrett and General Goldfein, when will results of the beta test be available?

Secretary BARRETT and General GOLDFEIN. As of Friday, 19 June, RAND reported that they were in the process of sending the draft final report to SAF/PA. This is part of the review process, because in order for it to be released, it needs three AF reviewers that are outside of the sponsoring office and SAF/PA assists. This part of the process typically takes little time, so they expect the actual report to release soon. They did not provide a date for release.

40. Senator HIRONO. Secretary Barrett and General Goldfein, what do you need from Congress to help save lives?

Secretary BARRETT and General GOLDFEIN. Funding promising solutions to increase airmen and space professional resilience, connection, and help seeking are critical to saving lives. The fiscal year 2021 True North budget begins a long effort to scale the program across the DAF. Funding for the program has increased significantly from $9.9 million in fiscal 2019 and 2020 to $53.3 million in the fiscal year 2021 budget request. This is just the start. We are preparing to assess the True North needs of our Guard and Reserve Total Force members while pursuing a comprehensive approach to suicide prevention that leverages partnerships with academia, industry, and other government organizations. We need Congress to continue to fund these efforts to increase the readiness and lethality of our Force.

SEXUAL HARASSMENT AND RETALIATION

41. Senator HIRONO. Secretary Barrett and General Goldfein, a recent Pentagon report on sexual assault at the Air Force Academy estimated that 90 percent of sexual assaults went unreported and that reporting rates consistently declined over the past 6 years. I am on the Board of Visitors at the Air Force Academy and I remain concerned that not enough has been done to combat this culture. How will the Air Force fix this issue at the Academy and across the Air Force?

Secretary BARRETT and General GOLDFEIN. USAF Academy reporting was consistent from academic year 16/17 to 17/18 (23 reports each year) with a rise in academic year 18/19 (40 reports). With the rise in prevalence, the DAF began a comprehensive, integrated, and holistic approach to violence prevention that addresses common factors underlying interpersonal and self-directed violence (ISDV): sexual assault, domestic violence, child maltreatment, suicide, and workplace violence. The DAF initiated a 3-phase sexual assault prevention strategy that focuses on systematically addressing risk factors for sexual assault using proven policy and programs.

1. Developing a comprehensive strategic plan including proactive universal and selected development and interventions to address ISDV prevention at various points across the DAF lifecycle for airmen and space professionals (accession, basic and tech training, operational unit, and Professional Military Education (PME); delivering more effective problem solving skills (e.g. coping and emotion regulation) and fostering a culture of connectedness to prepare air and space professionals to face any adversity;

2. Relying on evidence-based research/interventions to reduce perpetration, victimization, and re-victimization. As an example, research shows these adapted interventions can reduce sexual assault victimization and perpetration by 50–60 percent; and,

3. Ensuring integrated policy, processes, and assessments, while providing functional leadership for installation-level prevention strategists and collaborating with others to mobilize best practices and maximize results.

This approach is a paradigm shift for how the Department has been addressing sexual assault prevention. It focuses on what Air and Space professionals are, can, and will do rather than relying on what leaders tell them to do. The DAF is focused on reducing prevalence while increasing victim reporting to seek care.

AIR FORCE'S ADVANCED BATTLE MANAGEMENT SYSTEM

42. Senator HIRONO. Secretary Barrett and General Goldfein, the DOD Budget for fiscal year 2021 requests investment in Joint All-Domain Command and Control JADC2 to "create an agile, interoperable Joint Force that can fight with a fully networked platforms, sensors, weapons, and command and control capabilities" even in contested environments. The backbone of this JADC2 effort appears to be the Air Force's Advanced Battle Management System (ABMS). The Air Force has requested a budgetary increase to pay for increased experimentation and technology advancement of the JADC2 system. Will the Air Force continue to be the lead on the supporting infrastructure for the entire Joint Force? If not who will maintain and continue to build out the JADC2 system?

Secretary BARRETT and General GOLDFEIN. The Department of the Air Force leads the development of the Advanced Battle Management System (ABMS), the battle network of the joint force that enables Joint All-Domain Command and Control (JADC2). ABMS also connects with complementary networks across each of our sister Services. The Department of the Air Force is working closely with the Department of Defense's JADC2 Cross Functional Team—led by DOD Chief Information Officer Dana Deasy and Vice Chairman of the Joint Chiefs of Staff Gen John Hyten—as they ensure each Service builds interoperable capabilities that support JADC2. The Department of the Air Force is also the lead for the development of the DOD Concept for Global Command and Control on behalf of the Vice Chairman of the Joint Chiefs of Staff.

43. Senator HIRONO. General Goldfein, how do you plan to mitigate cyber attacks on the JADC2 system?

General GOLDFEIN. The ABMS is being developed with security from the beginning rather than as a consideration once the technology has been built. All ABMS software will be developed using our platformONE approach, following the software principles described in the "DOD Enterprise DevSecOps Reference Design" published in August 2019, where DevSecOps refers to the continuous iteration of development, security, and operations. This reference design incorporates security into the development pipeline and enables a continuous Authority to Operate (c-ATO) and the transportability of reliable code across multiple platforms in secure software "containers."

Software developed for ABMS will include continuous monitoring and robust authentication measures at all layers. Further, the meshONE network is software defined, meaning it is rapidly configurable which will provide added security protection to re-form the network or isolate potential threats. Finally, ABMS is also developing zero trust capabilities that extend beyond the traditional, but limited, "perimeter defense" approach to an in-network defense approach. Together, these methods ensure a robust and multi-faceted approach to technological development, deployment, and execution of the capabilities that will make up the battle network for JADC2.

44. Senator HIRONO. General Goldfein, are you getting support for this effort from the whole of government?

General GOLDFEIN. Secretary Barrett, Chief Raymond, and I could not develop these critical capabilities nor develop them at the speed of relevance were it not for the continued support and leadership of Congress. The authorities and resources provided to the Department of the Air Force from Congress for the ABMS have enabled us to truly pursue the required integration of our capable, but too often disconnected, platforms our warfighting leadership and combatant commanders need to fight and win in the National Defense Strategy environment. The ABMS team is also partnering with the Office of the Director of National Intelligence, Intelligence Community agencies, and the Coast Guard on key initiatives.

45. Senator HIRONO. Secretary Barrett, does the Air Force have all the authorities it requires to succeed with JADC2?

Secretary BARRETT. At this time, the Department of the Air Force has all the authorities it requires to pursue JADC2 through ABMS development. In the event additional authorities are required, the Department will propose them through the appropriate channels.

SPACE CONTROL SQUADRON

46. Senator HIRONO. Secretary Barrett and General Goldfein, last Fall, the Air Force indicated Barking Sands Pacific Missile Range Facility in Kauai as the preferred location for a Pacific-based Space Control Squadron operated by the Hawaii Air National Guard. What is the status of this Space Control Squadron?

Secretary BARRETT and General GOLDFEIN. We are currently conducting the environmental analysis and anticipate completion in the summer of 2021. After a thorough review of the environmental impacts, we anticipate a final basing decision in late summer or early fall of 2021.

47. Senator HIRONO. Secretary Barrett and General Goldfein, when will the unit be activated?

Secretary BARRETT and General GOLDFEIN. We anticipate activating the squadron in fall of 2021.

SPACE FORCE CREATION

48. Senator HIRONO. Secretary Barrett and General Goldfein, with the creation of Space Force, is the Air Force currently adequately manned to cover the personnel needs of both the Space and Air Force?

Secretary BARRETT and General GOLDFEIN. Even with the creation of the Space Force, the Department of the Air Force is too small for what our Nation needs. Our Air and Cyber, as well as Space, missions require more personnel than requested in the Fiscal Year 2021 President's Budget but our approach and budget request recognize fiscal realities and the need to balance manpower with readiness and modernization.

Over the Future Years' Defense Plan, we plan for moderate end strength growth for both the Air and Space Forces while balancing those missions amongst cost limitations. For the Space Force, we project additional growth and end strength transfers from the Air Force, Army, and Navy to meet the demands of today's space missions and the mission growth required to effectively protect, defend and provide space capabilities in a contested domain.

The Department will continue evaluating and striking a balance for the right number of personnel against mission, readiness, modernization, and fiscal dynamics.

49. Senator HIRONO. Secretary Barrett and General Goldfein, you can't grow airmen with specialized Space control education overnight and will need to train airmen in space operations. What do you anticipate the need for increased personnel to be and by when?

Secretary BARRETT and General GOLDFEIN. Last year, we briefed we needed an additional 1,900 billets to stand up the Space Force. This number represents essential requirements to stand up not only our Headquarters but mission-focused capabilities, which we are addressing through establishing key Centers or Center-equivalents for the space domain—Doctrine Center; Warfare Center; Intelligence Center; Professional Military Education (PME) Center; Test Center; and Personnel Center.

As the question states, there are additional manpower requirements coming in the next several years based on the need to add space control units and capabilities to account for cand forecast threats. As our servicematures and threats by our adversaries grow, our projections will be similarly updated to best reflect the resources required to protect and defend our interests in space.

We are taking a "clean sheet" approach to infuse innovation and improvement, streamlining processes to reduce costs, save money, and appropriately steward Department resources. Across the FYDP, we are using existing resources to establish the Space Force within existing DOD topline, made possible by the support of Congress and the DOD.

50. Senator HIRONO. Secretary Barrett and General Goldfein, when will Space Force achieve budgetary independence from the Air Force or will it?

Secretary BARRETT and General GOLDFEIN. Program Objective Memorandum process will allow Gen Raymond to independently advocate for Space Force mission requirements, funding needs, and other key resources essential for a separate service. Having an independent budget will allow us to continue to advocate for DOD resources so we can protect and defend the space domain.

Moving forward, the Space Force must have stable and consistent funding to enable it to address growing threats in the space domain. The Space Force is committed to minimizing cost and bureaucracy, but its end strength and budget should reflect rising threats from our adversaries.

Under one Department, the Space Force will continue to have close ties to the Air Force. The Space Force will leverage the Air Force for more than 80 percent of its enabling functions like business systems management, financial management, and auditing to significantly reduce cost and avoid duplication of support functions.

51. Senator HIRONO. Secretary Barrett and General Goldfein, what do you envision the role of the Air National Guard to be under the Space Force?

Secretary BARRETT and General GOLDFEIN. National Guard and Reserve space units play a critical role in space missions today. Both Reserve and Guard units provide strategic depth for U.S. space operations, while also recruiting and retaining personnel with unique civilian experiences across this enterprise.

At this time, existing Air National Guard and Air Force Reserve space units are aligned with and can continue to integrate effectively with the U.S. Space Force for the foreseeable future.

We have the unique opportunity to consider a clean sheet, 21st Century approach to Active Duty /Reserve Component roles and human capital management specially designed for our mission set. We are currently developing and analyzing innovative options for the new Service, and will discuss the options with Congress once our analysis is complete.

QUESTIONS SUBMITTED BY SENATOR DOUG JONES

JROTC FLIGHT ACADEMY

52. Senator JONES. Secretary Barrett, in last year's NDAA, Congress encouraged the Air Force to continue and to expand the JROTC Flight Academy program, and Congress appropriated funds for the program in the fiscal year 2020 bill. This very successful program provides a phenomenal opportunity for a diverse pool of young people to gain pilot's certifications and to help address the pilot shortage in both civilian and military aviation.

Please provide an update on the fiscal year 2020 Flight Academy program.

Secretary BARRETT. The Air Force Junior Reserve Officer Training Corps (JROTC) Flight Academy is in its third year of execution. The Air Force funded 200 Air Force JROTC cadets to attend the Flight Academy in summer fiscal year 2020 (fiscal year 2018 funded 120 and fiscal year 2019 funded 150). Additionally, this year approximately 20 ROTC and 10 Civil Air Patrol Cadets will attend. The program has also grown to 17 partnering universities, of which 4 are Historically Black Colleges and Universities. Moreover, this year the program reached 51 percent overall diversity for the first time (fiscal year 2018 equals 40 percent and fiscal year 2019 equals 45 percent), the largest growth in demographic groups was young women. This number remains significant as AFJROTC boasts almost 900 high schools and 125,000 cadets. As you know, overall AFJROTC cadets are 58 percent minority and 40 percent female. Air Force JROTC has requested $250,000 through the Air Force Rated Diversity initiative, for communication and marketing as the Air Force continues to work to reach these underrepresented communities and to pull a more diverse talent pool towards aviation.

53. Senator JONES. Secretary Barrett, is the Air Force committed to funding this program for fiscal year 2021?

Secretary BARRETT. Yes, the Air Force remains committed to adding $8.4 million in fiscal year 2021 which provides for 400 scholarships: 300 AFJOTC cadets, 20 ROTC, 20 Civil Air Patrol, and for the first time, 10 USAFA cadets and 50 young people who will compete for slots through a collaborative effort between Air Force JROTC, Air Force Recruiting Service and several Nation-wide "affinity" groups such as Women in Aviation and the Organization of Black Aerospace Professionals.

54. Senator JONES. Secretary Barrett, have you considered its expansion and if so, please describe your plans.

Secretary BARRETT. The Air Force continues to look for ways to develop a diverse talent pool. As such, the Air Force views JROTC as an "untapped human resources asset" for the Nation. Investing in these cadets brings a positive return on investment for the Air Force and the Nation. The long-term goal for the program is to maintain funding for 500 scholarships annually, with 400 earmarked for Air Force JROTC and 100 allocated for other Air Force student groups.

SPACE COMMAND BASING DECISION

55. Senator JONES. Secretary Barrett, Space Command was reestablished in 2019 as a combatant command. The Air Force has still not announced the location of that combatant command's headquarters. By every measure, Redstone Arsenal in Huntsville is the best choice to be the home of SPACECOM HQ. Can give me an update on the process and timeline for this basing decision?

Secretary BARRETT. With the establishment of the United States Space Force, the Department of the Air Force, on behalf of the Office of the Secretary of Defense, re-evaluated the basing action for United States Space Command. Our revised approach leveraged best practices from the Department of the Air Force strategic basing process and the Army's recent Futures Command stationing action.

We announced the revised approach with the screening and evaluation criteria on 15 May. The revised approach expands the number of eligible locations for the USSPACECOM headquarters, and gives communities an opportunity to self-nominate based on the approved screening and evaluation criteria.

We anticipate making a final selection for the preferred location and reasonable alternative(s) in early 2021 subject to compliance with the National Environmental Policy Act. In the meantime, Peterson Air Force Base, Colorado, will remain the provisional location for the headquarters of U.S. Space Command until a permanent headquarters location is selected and facilities are ready in approximately six years.

AERIAL REFUELING SHORTFALLS

56. Senator JONES. General Goldfein, in order to alleviate the already high stress on the aerial refueling fleet and to assure we have the capacity to meet the needs of a high-intensity conflict if we are going to retire our tankers before their replacements are operationally ready, has the Air Force considered options to increase capacity, rather than just ways to manage a decrease in capacity, such as aircraft leases or commercial air refueling service contracts?

General GOLDFEIN. Yes, the Air Force is actively considering options to increase the aerial refueling fleet capacity. We are currently working in coordination with United States Transportation Command and Air Mobility Command on assessing the feasibility, affordability, and advisability of using contractor-operated aerial refueling aircraft to support Air Force receiver requirements. A business case analysis is required to analyze the current tanker air refueling shortfall to determine whether commercial contract air refueling might be a viable option for the Air Force.

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2021 AND THE FUTURE YEARS DEFENSE PROGRAM

WEDNESDAY, MARCH 4, 2020

UNITED STATES SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

DEPARTMENT OF DEFENSE BUDGET POSTURE

The Committee met, pursuant to notice, at 2:29 p.m. in room SH–216, Hart Senate Office Building, Senator James M. Inhofe (Chairman of the Committee) presiding.

Committee Members present: Senators Inhofe, Wicker, Fischer, Cotton, Rounds, Ernst, Tillis, Sullivan, Perdue, Cramer, McSally, Scott, Hawley, Reed, Shaheen, Gillibrand, Blumenthal, Hirono, Kaine, King, Heinrich, Peters, Manchin, Duckworth, and Jones.

OPENING STATEMENT OF SENATOR JAMES M. INHOFE

Chairman INHOFE. The meeting will come to order.

The Committee meets today to receive testimony on the Department of Defense (DOD) Fiscal Year 2021 Budget Request.

I welcome our witnesses and thank them for their service, both Dr. Mark Esper and General Mark—we've got a pair of "Marks" this morning.

This Committee's top priority is ensuring the effectiveness and implementation of the National Defense Strategy. That's our vote that we have been adhering to for a long period of time now, about 3 years.

Unfortunately, under the last administration, we asked our military to do more with less, and that got us into trouble. Between 2012–2017, we lost $150 billion to sequestration, our defense budget and the readiness of our forces were devastated. I think we all understand that. As a result, when President Trump came to office, he inherited an American military in crisis. Thankfully, he delivered on his promise to begin rebuilding the U.S. Armed Forces.

Last year, President Trump negotiated the highest level of defense spending ever, a downpayment towards getting our military back to where it needs to be. But, that's not enough. We face a more dangerous world today than we anticipated we would. Since then, the Russians have invaded Crimea, backed Assad in Syria, sent mercenaries to Libya, and violated the Intermediate-Range Nuclear Forces Treaty [INF Treaty]. China began building islands

in the South China Sea, harassing its neighbors more frequently, and accelerating its military and nuclear modernization.

The bipartisan National Defense Strategy Commission Report said, if we're going to adequately fund the National Defense Strategy (NDS) and take on these threats, it's going to take a 3 to 5 percent net increase above inflation each year. Now, we're not doing that, but that's what we committed to. We had a meeting here. Everyone adheres to the logic of this contract that we agreed to. But, we're not carrying through with it. That should mean the budget request would have been, if we had adhered to that, $775 to $790 billion this year. Instead, we've got a budget agreement that provides $740.5 billion for all that we've got to do for our military defense. That's not your fault, not you guys, but the Congress needs to do more, be more realistic about what it's going to take to maintain a force capable of deterring and, if needed, defeating our enemies.

We're trying to do more while spending less, and the math just doesn't work that way. That's why we've—you've seen so many stories about how we can't buy necessary equipment. That's why we can't do the training that we need to do. That's why we can't give our troops the tools that they need to keep the peace. It's all in the NDS.

We can pay them now, or we can pay them later, and leave the debt to our children and grandchildren to pay. They'll be doing so in the more dangerous world if we don't fix the budget tragedy that we're facing right now.

I know you've tried to do the best you can within the limits of what you have been given. I appreciate that you're already have found a lot of savings, and you are to be applauded for that. That's hard to do with the decreasing budget which we have today.

On that happy note, I look forward to continuing to work with you to make sure our troops have the resources that they need to fight and win.

Senator Reed.

STATEMENT OF SENATOR JACK REED

Senator REED. Well, thank you very much, Mr. Chairman.

Let me join you in welcoming our witnesses today, thank them for their service to the Nation, and I look forward to their testimony.

Before we consider the details of the budget request, I'd like to address some broader concerns I have with the Department.

The National Defense Strategy Commission Report, released in November 2018, expressed significant concern about the balance of power between civilian and military leadership at the Department of Defense. Specifically, the Commission Report stated, "Civilian voices have been relatively muted on issues at the center of U.S. defense and national security policy, undermining the concept of civilian control."

Unfortunately, the situation has only gotten worse since the Commission issued its report. The Office of the Secretary of Defense is without Senate-confirmed leadership in many of its most important positions. In the Policy Office, of the seven positions requiring Senate confirmation, there are only two confirmed individ-

uals, and one of these is now serving as the Acting Under Secretary. We just received the nomination for Under Secretary of Personnel and Readiness, after a 2-year vacancy. Then, on Monday, the administration withdrew the nomination of Elaine McCusker to be the Department's Controller. These vacancies continue to challenge the Department's ability to effectively respond to national security challenges and undermine civilian inputs into the decision making process.

With political appointees largely absent, a large amount of work in the Department is now being done by career civil servants, and they, too, are beleaguered. Congress shares the blame in adding to civilian workforce woes with headquarters cuts. However, pay freezes, hiring freezes, exemption from collective bargaining, and having career civil servants carry the weight of defending political decisions is likely to lead to a hollowing out of the workforce whose experience and expertise we desperately need.

Furthermore, October 23rd of last year, I should say—last year, not this year—I joined Chairman Inhofe and our House Armed Services Committee (HASC) counterparts in sending you, Mr. Secretary, a letter expressing concern about the Department's failure to properly empower and staff the Office of the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict in order to fully exercise its congressionally mandated responsibilities for oversight and advocacy of Special Operations Forces. This is another position that has had an Acting Principal for more than half the administration, and it's unacceptable, frankly, that we still haven't received a response to our letter, more than 4 months later.

Now, turning to the budget request before us, the fiscal year 2021 budget, the Department of Defense seeks $636.4 billion for the base budget and $69 billion in overseas contingency operations funds, of which $16 billion is designated to pay for base requirements. In its base budget request, the Defense Department highlights resources targeted for the modernization of a more lethal force that is prepared for a high-end fight against near-peer competitors and to operationalize the National Defense Strategy, including investments in the space and cyber domains, the recapitalization of our nuclear deterrent, and the largest-ever research and development (R&D) budget for artificial intelligence, directed energy, and hypersonic weapons. The base budget request also supports the quality of life for our servicemembers by sustaining family support initiatives and by authorizing a 3 percent pay raise. However, it is clear that the base budget request will not cover all the Defense Department's requirements. So, once again, we have been presented with an overly generous use of the OCO account. I acknowledge that both Congress and other administrations have included elements of base funding in OCO accounts in the past, but overloading the OCO request with $16 billion worth of activities that truly belong in the base budget is difficult to justify.

I would also highlight that this year's budget reflects the outcomes of the Secretary's defense-wide review. The Department submitted a report to Congress in January that stated, "In an era of flattening budgets, it is more important than ever that we find creative ways to fund NDS-driven activities." The review identified more than $5 million in savings from defense programs that were

deemed a lower priority or inconsistent with the priorities of the NDS. Mr. Secretary, let me commend you for taking this review on. It's a tough job, and you did it thoroughly, and you did it with quite a bit of energy.

Now, these savings will be taking, however, from, among other things, health affairs, DOD schools, and cooperative threat reduction programs. So, I'm interested in hearing more about the analysis behind the programs that were cut or eliminated, and the areas in which these resources were reinvested.

Scrutinizing current programs to determine which ones support the Department's priorities and which ones should be reduced or eliminated is appropriate and necessary, and again, I commend you. However, it is somewhat disingenuous to argue that flat defense budgets have forced the Department to realign funds internally to support NDS implementation, when the Department is making affirmative decisions to divert funding from NDS priorities. For example, the Department recently approved the transfer of $3.8 billion from National Guard equipment, additional combat aircraft, ISR [intelligence, surveillance, and reconnaissance] assets, and amphibious ships in order to pay for the President's border wall. In addition, the budget request before us proposes significant cuts to initiatives like the European Defense Initiative (EDI). This is after funding for several military construction projects in EDI was taken out last year to, again, pay for the wall. Our close bond with our European allies and partners is one of our greatest strategic advantages and key to countering the near-peer competitor competition of Russia. However, the cut to EDI sends exactly the wrong message to our allies and our adversaries.

It is the responsibility of this Committee to ensure the men and women we send into harm's way have the resources necessary to complete their mission and return home safely, and I'm proud that this Committee, under the Chairman's leadership, has always worked in a bipartisan fashion during this process. I look forward to working with all the Committee Members to come to a reasonable agreement again this year.

Thank you, Mr. Chairman.

Chairman INHOFE. Thank you, Senator Reed.

We will now have opening statements from Secretary Esper and General Milley. Your entire statement will be made a part of the record, and you are recognized.

STATEMENT OF HON. MARK T. ESPER, SECRETARY OF DEFENSE

Secretary ESPER. Thank you, Mr. Chairman.

Chairman Inhofe, Ranking Member Reed, distinguished Members of this Committee, I appreciate the opportunity to testify in support of the President's Budget Request for Fiscal Year 2021. I'm joined today by the Chairman of the Joint Chiefs of Staff, General Mark Milley.

The 2018 National Defense Strategy provides a clear roadmap for the Department of Defense to address the reemergence of long-term strategic competition from near-peer competitors, China, then Russia. Throughout the Pentagon and across the Joint Force, the NDS guides our decisions and actions as we adapt the force to simulta-

neously contend with the threats of today while preparing for the challenges of tomorrow. We do this by increasing the readiness and lethality of our warfighters, strengthening our alliances and partnerships, and reforming the way the Department does business. Additionally, we have placed renewed emphasis on taking care of our servicemembers and their families.

The Department is grateful for the strong support provided in the Fiscal Year 2020 National Defense Authorization Act (NDAA) and DOD appropriations, which allowed us to make vital investments in our military's modernization, enabled the creation of the Space Force, and provided our servicemembers with the largest pay increase in a decade. Our continued success is contingent upon predictable, adequate, sustained, and timely funding, and I encourage Congress to pass a full-year spending package for all fiscal year 2021 on time to avoid the debilitating effects of another continuing resolution.

The Department's total fiscal year 2021 budget request is $705.4 billion. This represents a minor increase from fiscal year 2020 enacted amount of $704.6 billion, but does not keep pace with inflation. Given this flattened funding level, we were required to make many tough decisions to ensure our highest priorities were adequately funded. To enable our decision maker, we conducted a comprehensive defense-wide review aimed at reallocating resources from programs and activities that offer a low return on investment relative to the goals and objectives of the NDS. Over a 4-month period, we conducted over 20 review sessions examining almost $100 billion in programs, agencies, and activities that make up the fourth estate. This review generated $5.7 billion in fiscal year 2021 savings that were reinvested back into readiness and lethality efforts.

Each of the military services is also instituting a similar review process across their budgets to achieve the same outcome of realigning resources and finding savings that can be reinvested into higher priorities.

Additionally, I have initiated the process of conducting full reviews of all combatant commands to properly align our global military posture to the NDS. This effort will enable the Department to shift greater emphasis to our highest-priority region, the Indo-Pacific, or allow us to return troops home to build readiness. Thus far, we have ongoing reviews of AFRICOM and SOUTHCOM, and will expand to other commands over the coming months.

My recent decision to deploy elements of an Army Security Force Assistance Brigade to Africa to replace units from an Infantry Brigade Combat Team is an example of how this process is enabling us to better match resources to the mission of each combatant command.

The Department's fiscal year 2021 budget request reflects the same disciplined adherence to the NDS. To preserve our overmatch, we have made significant investments into several critical technologies that will alter the future battlefield. Our RDT&E budget is the largest in our history and prioritizes hypersonics, microelectronics, 5G communications, autonomous systems, and artificial intelligence. We are moving forward with a long-overdue recapitalization of the Nation's nuclear triad, with key investments

in the ground-based strategic deterrent, the B–21 stealth bomber, the *Columbia*-class submarine, and improved nuclear command, control, and communications systems, to name a few. We are also enhancing our missile defense capabilities to protect against the growing threat of advanced enemy missile systems.

This budget request expands our capacity to defend our interests in space as we consolidate much of our space enterprise into the Space Force. It also advances the Department's cyber capabilities, allowing us to protect our digital infrastructure while disrupting covert foreign malign activity. This includes defending the integrity of our democracy by assisting in the security of our elections.

Finally, in the traditional air, land, and sea domains, we are focused on modernizing our formations by divesting from platforms and equipment that are no longer suited for the emerging strategic environment. The Department appreciates this Committee's advocacy of the National Defense Strategy, and we value Congress's guidance on reform.

I now ask for your support so that we may fully implement our decisions and move forward with the investments needed to ensure America's military maintains our competitive advantage, continues to deter war, and preserves our Nation's security.

Thank you.

[The prepared statement of Secretary Esper follows:]

PREPARED STATEMENT BY SECRETARY OF DEFENSE MARK T. ESPER

INTRODUCTION

Chairman Inhofe, Ranking Member Reed, distinguished Members of the Committee, I appreciate the opportunity to testify in support of the President's budget request for fiscal year 2021.

The 2018 National Defense Strategy (NDS) provides a clear roadmap for the Department of Defense (DOD) to address the re-emergence of long-term strategic competition from near-peer competitors: China, then Russia. Throughout the Pentagon and across the Joint Force, the NDS guides our decisions and actions as we adapt the force to simultaneously contend with the threats of today, while preparing for the challenges of tomorrow. We do this by increasing the readiness and lethality of our warfighters, strengthening our alliances and partnerships, and reforming the way DOD does business. Additionally, we have placed renewed emphasis on taking care of our servicemembers and their families.

The DOD is grateful for the strong support provided in the Fiscal Year 2020 National Defense Authorization Act (NDAA) and the Fiscal Year 2020 DOD Appropriations Act. This legislation supported vital investments in our military's modernization, enabled the creation of the Space Force, and provided our servicemembers with the largest pay increase in a decade. Our continued success as a Department is contingent upon predictable, adequate, sustained, and timely funding. We encourage Congress to pass a full-year spending package for fiscal year 2021 on-time to avoid the debilitating effects of another Continuing Resolution.

The DOD's total fiscal year 2021 budget request is $705.4 billion, consisting of $636.4 billion for base requirements with an additional $16 billion categorized as overseas contingency operations for base, and $53 billion for overseas contingency operations. After removing disaster relief emergency funding, this year's budget request represents a minor increase from the fiscal year 2020 enacted amount of $704.6 billion, but does not keep pace with inflation. Given this flattened funding level, we made many tough decisions to ensure our highest priorities were adequately funded.

To guide our decision making, we initiated a comprehensive Defense-Wide Review (DWR) aimed at reallocating resources from programs and activities that offer low return on investment relative to the goals and objectives of the NDS. Over a 4 month period, we conducted over 20 review sessions, examining almost $100 billion in programs, agencies, and activities that make up the "Fourth Estate." This review generated $5.7 billion in fiscal year 2021 savings for reinvestment in areas such as

nuclear modernization, space, missile defense, hypersonic weapons, artificial intelligence, and 5G communications.

Additionally, to make room for investments in future capabilities, each of the Services has divested some legacy systems. These were necessary measures to ensure our highest priority programs were sufficiently resourced. I urge Congress to support these tough choices, as the alternative is to underprepare for the challenges of great power competition.

The DOD's fiscal year 2021 budget request is directed toward achieving irreversible implementation of the NDS by focusing on strengthening military readiness and lethality; advancing critical modernization efforts across all domains: air, land, sea, space, and cyber; prioritizing nuclear deterrence recapitalization; enhancing missile defense capabilities; and providing our servicemembers and their families with the quality of life they deserve.

STRATEGIC ENVIRONMENT

Today's global security environment remains complex and volatile. The re-emergence of great power competition has challenged the United States military's long-held competitive advantage in certain key areas. Meanwhile, rogue regimes continue to foster regional instability, while terrorist organizations seek out sanctuary in new parts of the world. It is critical that the DOD maintains the momentum provided by the last few budgets, which enabled vital investments in modernization and lethality, and enhanced our military's deterrence capability.

The Department's highest priority remains China, as its government continues to use—and misuse—its diplomatic, economic, and military strength to attempt to alter the landscape of power and reshape the world in its favor, often at the expense of others. The Chinese Communist Party (CCP) continues to invest heavily in the modernization and expansion of its military in areas such as space, cyber, electronic warfare, undersea warfare, fighter aircraft, bombers, long-range missiles, and other anti-access / area denial (A2/AD) capabilities.

China's goals are clearly stated: by 2035, the CCP's leaders seek to complete its military modernization, and, by 2049, become a preeminent global military power. What is most troubling is that China is pursuing these objectives by any means necessary, including forced technology transfer, intellectual property theft, cyber espionage, and commercial acquisitions. Once Beijing obtains and develops these technologies, it leverages them to intimidate or coerce smaller states, while simultaneously narrowing the United States' competitive advantage. When American companies fall victim to state-backed cyber theft, are forced to surrender intellectual property, or are undercut by a Chinese corporation selling below cost, it erodes our important industrial and innovation bases and diminishes our military overmatch.

As part of its efforts to manipulate the long-standing free and open international order to its advantage, Beijing continues to militarize features in the South China Sea, threatening freedom of navigation and the free flow of commerce throughout the region. Through its Belt and Road Initiative, China is expanding its political and economic ties across Asia, Europe, South America and Africa, with the less publicized objective of expanding the People's Liberation Army's influence and reach.

Meanwhile, Russia remains intent on upending international norms and reasserting regional dominance by violating the sovereignty of neighboring states, breaking treaty obligations, and engaging in malicious cyber operations on a global scale. Moscow continues to press forward with the rapid modernization of its military. Its sophisticated coordination of drones and cyber attacks during its invasion of Ukraine, as well as its recent public display of new nuclear hypersonic systems, validate our concerns about Russia's burgeoning military capabilities and intentions to undermine the NATO alliance.

Concurrently, North Korea seeks to build legitimacy through the development of a variety of nuclear, conventional, and unconventional weapons, and by growing its ballistic missile capabilities. Our forces on the Korean Peninsula remain at a high state of readiness, alongside our Republic of Korea counterparts. While we support continued diplomatic efforts to bring about lasting peace in Korea, we remain prepared to fight and win tonight, if required.

In the Middle East, the United States remains committed to working alongside our allies and partners to advance our strategic priorities for the region: ensuring the enduring defeat of ISIS, supporting a strong and independent Iraq, and deterring Iranian aggression. The United States' actions over the past year, including the deployment of additional defensive forces to the region, the defeat of ISIS' physical caliphate, and the operations that resulted in the deaths of terrorist leaders Abu Bakr al-Baghdadi and Qasem Soleimani, were essential to restoring deterrence and degrading our enemy's military capabilities.

Guided by the NDS, the DOD seeks to right-size our force disposition in all theaters over the long-term to better compete with China and Russia. Concurrently, we must sustain efforts to counter rogue regimes such as Iran, while bolstering the capability of our allies and partners to maintain regional stability. Enhancements to our posture in the Middle East in recent months are consistent with this strategy.

BUILD A MORE LETHAL FORCE

The DOD's fiscal year 2021 budget request is focused on designing a future force that is dominant in all warfighting domains. This is particularly important at a time when our strategic competitors are developing advanced capabilities to challenge our areas of traditional military overmatch. We must continue to invest in modernization to solidify our competitive advantages and build new areas of asymmetric advantage.

Nuclear Modernization

The 2018 Nuclear Posture Review reaffirmed the need for the nuclear triad, validating DOD's long-overdue recapitalization of the nation's nuclear armed missiles, submarines, bombers, dual-capable aircraft, and related infrastructure to keep the U.S. nuclear deterrent secure, effective, and reliable for decades to come. Most of the Nation's strategic nuclear delivery systems, built in the 1980s and prior, are reaching the end of their service life in the 2025 to 2035 timeframe, with all currently fielded systems having been extended well beyond their original service lives. The DOD's fiscal year 2021 budget invests $28.9 billion to sustain and modernize all three legs of the triad with key investments in the ground-based strategic deterrent, the B–21 stealth bomber, the *Columbia*-class submarine, and enhanced nuclear command, control and communications (NC3) systems.

Missile Defeat and Defense

The Department is committed to implementing the 2019 Missile Defense Review, which calls for comprehensive missile defense capabilities, flexibility and adaptability, tighter offense-defense integration and interoperability, and highlights the importance of space. The DOD's fiscal year 2021 budget funds enhancements to U.S. Missile Defeat and Defense (MDD) capabilities to defend the Homeland, deployed forces, allies, and partners against an increasingly complex adversarial missile threat. This budget request increases missile defense capacity and capability to keep pace with adversary missile systems, while investing in new approaches to a layered defense of the Homeland.

The DOD's fiscal year 2021 budget includes $20.3 billion for MDD, which includes $9.2 billion for the Missile Defense Agency (MDA), $7.9 billion in regional and strategic missile defense capabilities outside of the MDA, and $3.2 billion in missile defeat or left-of-launch activities. Notable investments include the development of the next-generation interceptor, and increased funding for the Aegis Ballistic Missile Defense System and Terminal High Altitude Area Defense (THAAD) Ballistic Missile Defense.

Critical Technologies

We are in the midst of rapid technological change that has the potential to fundamentally alter the character of war. Our adversaries are systematically and strategically developing and fielding advanced systems, eroding the advantage the United States military has maintained in conventional warfare. Maintaining technological superiority is essential to our future security. To ensure we lead in the development and fielding of new systems that harness these advancements, we must prioritize critical technology investments.

The DOD's fiscal year 2021 budget reflects this commitment by investing $106.6 billion in research, development, testing, and evaluation (RDT&E), the largest RDT&E budget in our history. The DOD's focus on research and technology efforts to bring advanced capabilities to the field will ensure we maintain overmatch against near-peer competitors. This budget request maximizes the amount of money we can effectively and responsibly spend on these critical and emerging technologies. Select efforts include:

- *Hypersonics*—Accelerates development of Army Long Range Hypersonic Weapon; increases funding for Navy Conventional Prompt Strike, and Air Force Advanced Rapid Response Weapon ($3.2 billion).
- *Microelectronics/5G*—Accelerates our access to both advanced commercial and specialty microelectronics while adopting a zero-trust security paradigm; hastens our mastery of "ubiquitous connectivity," so that we can fully leverage the power of 5G technologies for our mission, while preventing our adversaries from using it against us ($1.5 billion).

- *Autonomy*—Enhances speed of maneuver and lethality in contested environments; develops human/machine teaming ($1.7 billion).
- *Artificial Intelligence (AI)*—Continues the AI investments that focus on next-generation AI R&D (research and development) at DARPA [Defense Advanced Research Projects Agency], expands the intelligence AI pathfinder Project Maven, and accelerates fielding of AI capabilities at scale to meet warfighter needs through the Joint Artificial Intelligence Center (JAIC) ($0.8 billion).

More so than any other emerging technology, AI is transforming our society and affecting the ways in which we do business, interact socially, and conduct war. Our competitors have also recognized the transformative potential of AI and are investing heavily in it as they modernize their military forces. Maintaining a competitive advantage in AI is essential to our national security.

The DOD is committed to employing AI in a responsible and lawful manner that promotes our Nation's values. As such, I have approved the implementation of the DOD's AI Ethics Principles to ensure the development and use of AI is guided by an ethical framework. These principles will help guide, inform, and inculcate the responsible use of AI—in both combat and non-combat systems—by the Department to help maintain our technological edge, while upholding our values. By adopting these Principles, DOD will lead the way in the responsible use of AI across the entire government and with our allies and partners.

Space

The NDS recognizes that space is fundamental to U.S. prosperity and national security. Great power competitors are increasingly developing weapons to disrupt satellites and other space-based capabilities. The Fiscal Year 2020 NDAA created the sixth branch of the military, the United States Space Force (USSF), within the Department of the Air Force, to organize, train, and equip military and civilian personnel to maintain freedom of operation in, from, and to space. As the first new military service established in over 70 years, the USSF will protect and defend our military capabilities and economic interests in the space domain as our near-peer competitors continue to expand their presence in space.

The DOD's fiscal year 2021 budget invests $18 billion in the space warfighting domain. These investments will enable the expeditious building of USSF, reduce risk to satellite communications jamming, build resiliency in global positioning systems, improve space-based missile warning capabilities, and increase our space launch capacity.

To manage DOD space forces efficiently and holistically, the Department's vision remains to consolidate the preponderance of space missions, units, resources, and personnel from the existing Military Services into the new USSF. These transfers are critical to unifying today's disparate space-related research, development, acquisition, fielding, and operations into a single organization led by a single leader. The DOD's goal is to transfer the appropriate space-related assets into the USSF no later than fiscal year 2022, consistent with law.

Cyber

Cyber attacks represent a long-term threat to our national strength and military advantage. Persistent and sophisticated adversaries are continuously targeting our systems and networks through malicious cyber activity. This challenge is equally applicable to public and private networks across the United States. A proactive DOD cyber approach is necessary to guard against these threats by defending forward to protect our infrastructure and disrupt covert foreign malign activity. This includes defending the integrity of our democratic processes by assisting in the security of our elections.

The DOD's fiscal year 2021 budget invests $9.8 billion into cyberspace activities that continue to build on the goals laid out in the DOD Cyber Strategy. This request improves cybersecurity by mitigating key cyber deficiencies and strengthening our defensive capabilities to counter adversary efforts to exploit U.S. technology. While robust defensive cyber capabilities are our priority, the joint force is also improving offensive capabilities to engage threats at a time and place of our choosing.

The Cyber Operations budget includes $2.2 billion to support the Cyber Mission Force (CMF), consisting of 133 teams working as the operational arm of U.S. Cyber Command, to carry out cyberspace operations in defense of the Nation's interests. Cyberspace domain investments, underpinned by digital modernization efforts, provide our CMF the tools necessary to execute offensive and defensive cyberspace operations.

Air

In the air domain, we continue procurement of the Joint Strike Fighter aircraft and modernization programs for existing Navy and Air Force strike fighter aircraft

and bombers. We also include a cost-effective mix of 4th generation fighter aircraft by procuring 24 additional F/A–18E/F Super Hornets and capitalizing on existing Foreign Military Sales production lines to procure 12 F–15 EX aircraft. This will increase readiness of the Navy and Air Force fighter fleet and relieve pressure on the aging legacy platforms. Additionally, we continue procurement of the KC–46A aerial refueling tanker, which will replace aging legacy tankers.

Sea

In the sea domain, the DOD remains committed to building a Navy of at least 355 ships. The DOD's fiscal year 2021 budget request procures eight surface and subsurface battle-force ships, including one *Columbia*-class ballistic missile submarine and one *Virginia*-class submarine. Importantly, we remain focused on the readiness of our current fleet—our top priority—by allocating an additional $3.4 billion into the Navy's operations and maintenance account relative to fiscal year 2020 (excluding disaster relief emergency funding).

To maintain our maritime dominance and freedom of maneuver, we are exploring a range of alternative "future fleet" designs that are capable of meeting the demands of the NDS, while remaining compatible with future warfighting doctrine, threat developments, and budget constraints. In concept, the future fleet must prioritize integrated Navy and Marine Corps operations; distributed awareness and lethality; survivability in a high-intensity conflict; adaptability in a complex world; the ability to project power, including through precision long-range fires; and demonstrate presence, providing a visible deterrent to potential adversaries while reassuring our allies and partners.

The composition of the future force will emphasize fewer large surface platforms, more and smaller surface combatants, lightly/optionally-manned ships, and an ample submarine force. Just as the Air Force and Army are integrating more remotely piloted aircraft and optionally manned ground vehicles, the Navy must begin to integrate and deploy lightly/optionally-manned ships. Future analysis and experimentation will drive the NDS-based force structure for the Navy and Marine Corps, and will inform the direction of future shipbuilding plans.

One of my top priorities is ensuring that the Department has a robust, data-driven review of the future integrated naval force. To that end, I have initiated a war game and analysis process led by the Deputy Secretary of Defense to evaluate proposals from across the DOD, to possibly include experts from the Naval War College, Naval Postgraduate School, and Marine Corps University. The Department of the Navy intends to continually iterate the recent Integrated Naval Force Structure Assessment and align what it learns with the annual planning, programming, and budgeting process.

Land

In the land domain, the DOD's fiscal year 2021 budget improves the lethality and survivability of ground forces by divesting legacy systems and investing in modernized combat systems that will be needed by the future Joint Force. Building on the research and development investments made over the past 2 years, we continue to prioritize funding for the development and testing of long-range precision fires, future vertical lift, ground combat vehicles, air and missile defense, the network, and soldier lethality systems to replace many of the Army's aging platforms. This budget will ensure our ground forces remain ready and lethal by upgrading 89 M–1 Abrams main-battle tanks, procuring over 4,200 Joint Light Tactical Vehicles and 72 Amphibious Combat Vehicles, and upgrading over 150 Stryker Vehicles.

Joint Warfighting Concept

In addition to developing these capabilities we must also modernize how we fight. Our budget request supports the creation of a new Joint Warfighting Concept to enable our transition to All-Domain Operations by aligning our personnel, equipment, training, and doctrine.

This concept builds on the recent experimentation conducted by the Services as we develop a new approach to integrating our warfighting capabilities. As part of this effort, the Air Force is leading the Department's new Joint All Domain Command and Control (JADC2) initiative, which is critical to linking any sensor to any shooter on the battlefield in real time.

Dynamic Force Employment

Our military's force posture must be adaptable to account for the uncertainty that exists in the strategic environment. Dynamic Force Employment (DFE) provides options for proactive and scalable use of the Joint Force in response to emerging security requirements. DFE will allow the DOD to compete more effectively by employing military forces outside of the steady-state pattern of deployments our adver-

saries have come to expect. This concept will induce unpredictability into our operational decisions, and demonstrate the capability to rapidly reposition forces in response to changing security conditions.

STRENGTHEN ALLIES AND ATTRACT NEW PARTNERS

The United States' competitive advantage is not only a result of our unrivaled warfighters and state-of-the-art weapons and equipment, but also our unmatched network of alliances and partnerships. Forged over decades of shared values, interests, and sacrifice, these relationships provide us a strategic edge our adversaries cannot match. The United States military works every day to strengthen and expand the alliances and partnerships that form the backbone of the free and open international order, which has enabled security and prosperity for millions around the world.

Indo-Pacific

The Indo-Pacific remains the DOD's number one priority region. We have an enduring commitment to uphold a free and open Indo-Pacific in which all nations, large and small, are secure in their sovereignty and able to pursue economic growth consistent with accepted international rules and norms. We are committed to enhancing this shared vision alongside our allies and partners in the region.

However, an increasingly aggressive China continues to undermine regional stability through its coercion of neighboring states, illegitimate maritime claims, and predatory economic practices. Unlike the Communist Party of China, the United States respects the sovereignty of all nations, regardless of their size or strength. Our approach continues to prove itself superior to Beijing's, as evidenced by our growing partnerships across the region.

For example, last November in Vietnam, I announced the provision of a second high-endurance cutter to enhance the Vietnamese Coast Guard's capabilities and build greater trust between our Nations. In Thailand, I signed Joint Vision 2020 with the Prime Minister in order to chart a course for increased interoperability and expanded exercises and training between our forces. In December, I signed a Memorandum of Understanding with Singapore announcing the establishment of a fighter training detachment in Guam, which will deepen our defense cooperation.

That same month, the United States hosted the second ever India 2–Plus-2 Ministerial, where the world's two largest democracies continued to strengthen our ties and finalized important agreements that will expand our ability to co-produce and co-develop critical technologies. Our burgeoning defense relationship, evidenced by the new Tiger Triumph annual amphibious exercise, will be crucial to improving our military interoperability.

NATO

The United States' leadership has been critical to getting the world's strongest military alliance back on the right trajectory. President Trump succeeded in elevating the issues of burden sharing and readiness, securing widespread agreement that NATO members must do more. As a result, our NATO allies invested an additional $130 billion into defense since 2016, and are projected to reach $400 billion by 2024. Additionally, the number of member states that currently meet the 2 percent GDP commitment has doubled over the past 3 years.

Last December, NATO reached its goal of identifying 100 percent of the contributions for the NATO Readiness Initiative. This plan provides the alliance with the capability to have 30 mechanized battalions, 30 combat vessels, and 30 air squadrons ready to fight in 30 days.

In fiscal year 2020, the United States military will deploy over 20,000 troops to participate in Defender 2020, one of the largest military exercises in Europe in the last 25 years. Defender will demonstrate our force projection capabilities, exercise the Army's ability to conduct Division-level maneuvers, and enhance interoperability with our allies and partners in the region, thereby deterring conflict.

Middle East

In the Middle East, we remain committed to supporting a regional constellation of strategic partners to ensure the enduring defeat of ISIS, deter Iranian malign activities, and support a strong and independent Iraq.

The United States maintains its leadership role in the 82-member Defeat-ISIS coalition. Together, the United States and its partner forces have destroyed ISIS's physical caliphate and liberated millions from its barbaric rule. United States troops deployed to Iraq and Syria continue to work alongside our allies and partners to ensure the enduring defeat of ISIS.

After months of escalating acts of aggression from the Iranian regime, the United States military took decisive action to protect our personnel and interests, which included a no-notice deployment of 3,500 soldiers from the Army's 82nd Airborne. The DOD also helped internationalize the response by leading the development of the International Maritime Security Construct (IMSC) in September 2019, which protects freedom of navigation in the Persian Gulf and Gulf of Oman. The IMSC currently includes contributions from seven nations and continues to deter malign activity in the Strait of Hormuz.

In Afghanistan, we remain committed to ending the war through a political agreement that ensures Afghanistan cannot be used as a safe haven for terrorist groups to attack the United States. On February 29, the United States signed an agreement with the Taliban that paves the way for intra-Afghan negotiations in pursuit of a permanent ceasefire and lasting peace. If the Taliban honors the arrangement, the United States will reduce its military presence to 8,600 troops within a matter of months, in line with commensurate reductions from other NATO allies that contribute forces. If progress continues, the United States and its partners will further reduce our presence over the next 14 months until all United States and coalition forces are out of Afghanistan. The entire process will be conditions-based, and should the Taliban renege on its commitments, we will adjust our withdrawal timeline accordingly. Throughout the course of our drawdown, we will retain the necessary capabilities to protect our servicemembers and support the Afghan security forces.

International Professional Military Education

The DOD is committed to expanding our International Professional Military Education (IPME) to deepen our defense relationships and build partner capacity. IPME, provided principally via the International Military Education and Training program, is a low-cost program that builds long-term relationships with future foreign leaders, strengthening our alliances and partnership throughout the world. In concert with the State Department, I plan to increase participation by 10 percent in fiscal year 2021. As we do so, we will ensure rigorous vetting of the students selected to participate, much like we do for the U.S. recruits with whom they train.

REFORM THE DEPARTMENT

Defense-Wide Review

The DOD is aggressively pursuing reforms to free up time, money, and manpower to reinvest back into our highest NDS priorities. Our most significant reform effort, the Defense-Wide Review, consisted of an extensive review of 50 Defense-Wide organizations and activities. In 4 months, we made over 120 programmatic decisions generating $5.7 billion in fiscal year 2021 savings, $0.2 billion in Working Capital Fund efficiencies, and another $2.1 billion in activities and functions realigned to the Services, demonstrating the DOD's commitment to responsible stewardship of American taxpayer dollars.

Moving forward, we will institutionalize the Defense-Wide Review to ensure we remain focused on increasing performance, decreasing cost, and remaining aligned with our priorities. To this end, we have established a new governance model over most Defense-Wide agencies and activities led by the DOD's Chief Management Officer who will now: review current year budget execution and develop a consolidated annual program and budget for Defense-Wide organization and accounts; conduct bottom-up reviews of Defense Agencies and Field Activities (DAFAs); and reform business operations and evaluate DAFA performance against measureable business goals.

Additionally, each of the Military Services has instituted a similar budget review process to achieve the same outcome of realigning resources and finding savings that can be reinvested into higher priorities.

We value Congress' guidance on reform, and we now ask for its support to fully implement our decisions. We look forward to working with Congress to ensure that necessary adjustments are made in the Fiscal Year 2021 NDAA and the Fiscal Year 2021 DOD Appropriations Act so that we may realize these savings and continue investing in NDS priorities.

Operational Reviews

The DOD has also initiated a full review of all military forces, programs, and activities within each combatant command to ensure alignment with NDS priorities. This effort will enable the DOD to shift greater emphasis to our top concern—China—or allow us to return troops to home station to build readiness. Thus far, we have ongoing reviews of United States Africa Command and United States Southern Command. My recent decision to deploy an Army Security Force Assist-

ance Brigade to Africa to relieve a Brigade Combat Team is the first of many decisions to rebalance the force for great power competition.

In parallel with this initiative, we are reviewing all major operational plans to ensure they are aligned with our policy objectives, starting with China and Russia. This integrated civil-military review process will ensure we remain ready for any crisis today, while also identifying key gaps, shortfalls, and limitations in our plans that need to be mitigated.

AUDIT

The DOD owes accountability and transparency to the American people, as the taxpayers deserve a level of confidence that their money is being spent effectively. In 2018, the DOD completed its first-ever consolidated financial statement audit, covering almost $2.8 trillion in assets. Now an annual institutionalized process, a second audit was subsequently completed in 2019, which showed that over 25 percent of the first year's findings have already been corrected, and there was no evidence of fraud or abuse.

The audit is about more than just compliance and financial management. Qualitative changes are happening every day that will, over time, result in real change to the way the Department does business. The DOD workforce's understanding of audit requirements continues to grow, and, as efficiencies are gained, value is being realized. The audit is helping galvanize change that advances cybersecurity, property management, inventory, and readiness, for the benefit of the warfighter and the American people.

PEOPLE

We recognize that our people—servicemembers, military families and DOD civilians—are our most valuable resource and the key to accomplishing the objectives outlined in the NDS. It is critical that we remain committed to taking care of our people so they can focus maximum attention and energy on accomplishing the mission. Everything we do depends on the dedication and skill of the men and women who sacrifice their own comfort and safety to safeguard the freedom we enjoy every day.

The DOD's fiscal year 2021 budget supports a three percent military pay raise and an increase in end strength of approximately 5,600 personnel. To enable our ability to continue to attract, develop, and retain a highly talented workforce, we are pursuing several initiatives to improve quality of life for our people.

Military Housing Privatization Initiative

The DOD has an obligation to ensure our servicemembers and their families have access to safe and secure housing. Under the Military Housing Privatization Initiative (MHPI) legislation enacted in 1996, the DOD began privatizing installation family housing. Following significant initial improvements to on-base housing units many years ago, the DOD reduced its oversight activities over a period of several years, resulting in cases of sub-standard living conditions for some residents living in privatized housing.

Since early 2019, we have taken extensive action to improve the quality of installation housing. Senior DOD leaders now meet regularly with key executives from each of the MHPI partners to ensure our initiatives continue to progress. Improvements to date include the development of a universal lease framework, increased training for installation commanders and housing personnel, and the hiring of additional housing staff across the Military Departments, to include resident advocates. Additionally, the DOD recently released a Tenant Bill of Rights to protect and empower our servicemembers and their families. Fifteen of the 18 rights will be fully available by May 1, 2020. The three remaining pertain to legal agreements between the Department and the housing providers that the DOD cannot unilaterally change. We are working aggressively to resolve these issues, and, if needed, will request Congressional support. In the meantime, servicemembers and their families can leverage their military department's procedures to address and resolve issues, while we work toward formal, uniform solutions.

The DOD's fiscal year 2021 budget increases funding for Military Housing Privatization Support by $54.6 million, an 82 percent increase over the fiscal year 2020 budget request. This funding increase enables enhanced oversight of MHPI housing consistent with the Fiscal Year 2020 NDAA requirements, to include staff augmentation and additional training, improved quality control measures, and database development and management.

Military Spouse Employment

Military spouses living in the United States face an average unemployment rate of 24 percent, nearly 7 times the current national rate. Many employers are hesitant to hire military spouses due to the frequent permanent change of station moves associated with military life. Furthermore, military spouses face significant financial hurdles when they are required to renew their occupational licenses following a move to a new state. These employment challenges impact the readiness of the force and adversely affect servicemember retention.

The DOD continues to work with State governments to develop policies and legislation that grant state-to-state licensure reciprocity or other methods to ease credentialing for military spouses. Many states have enacted positive changes, and we are calling on them to continue this trend. To support spouses' careers and encourage a high quality of life for military families, I recently directed the Secretaries of the Military Departments to include military spousal hiring assistance and other family considerations as criteria in future basing decisions.

Access to Childcare

Childcare is a workforce issue that directly impacts the efficiency, readiness, and retention of the total force. Earlier this month, I issued a directive prioritizing uniformed servicemembers for childcare at on-base Child Development Centers. The Department is committed to ensuring quality care and meeting the increased demand for child care services due to frequent deployments and high operational tempo. I will be pursuing other initiatives along these lines in the coming months.

CONCLUSION

We cannot lose sight of the significance of the challenges we now face. It is clear by the actions of today's revisionist powers and rogue regimes that the free and open international order, which has provided peace and prosperity for decades, is under duress. America's adversaries are intent on eroding our military's longstanding overmatch, undermining our robust architecture of allies and partners, and degrading our standing as the global partner of choice.

The Department of Defense is up to this challenge. With the support of Congress and delivery of on-time appropriations, we will have the means to continue to aggressively implement the NDS. By building a more lethal force, strengthening alliances and partnerships, and carrying out aggressive reforms, we will ensure America's military maintains our competitive advantage, continues to deter war, and preserves our Nation's security.

Thank you.

Chairman INHOFE. Thank you, Secretary Esper.

General Milley.

STATEMENT OF GENERAL MARK A. MILLEY, USA, CHAIRMAN OF THE JOINT CHIEFS OF STAFF

General MILLEY. Chairman Inhofe, Ranking Member Reed, distinguished Members of the Committee, thank you for the opportunity to join Secretary Esper here today.

It's my distinct honor and privilege to represent the almost 3 million soldiers, sailors, airmen, marines, coastguardsmen, and civilians of the United States Armed Forces, the best-trained, best-equipped, and best-led military force in the world, and it would not be possible without your continued support.

This budget is a strategy-driven budget. It is driven by the NDS, which you are fully aware of and I fully support. We stand really and capable to deter war, defend our Homeland from attack, support our allies; and, if deterrence fails, we are fully capable today to fight and win our Nation's wars against any potential adversary, anywhere on the Earth's surface, at any time.

But, our competitive advantage has eroded, and no one should have any doubt about that. China and Russia are increasing their military capabilities to outmatch the United States and its allies in

order to exert their global influence, and China's objective is to do that by mid-century.

North Korea, Iran, and violent extremist organizations fuel regional instability and pose direct threats to partner nations and United States citizens. While the nature of war is constant, advanced technologies have stressed our Industrial Age capabilities, concepts, and processes, and the changing character of war is happening in a very, very fundamental way.

Additionally, we are recovering from readiness shortfalls and modernization deferments from 20 years of continuous warfare and a decade of fiscal instability. This year's budget builds on previous readiness and modernization gains, and I believe the fiscal year 2021 budget submission is the best allocation of resource in a balanced way to support the National Defense Strategy. It builds a more lethal force. It strengthens allies and partners, and it reforms the Department for greater performance and affordability. It also prioritizes, as the Secretary said, the Indo-Pacific region to deter Chinese aggression, maintain stability, and ensure access to common domains in order to preserve a free and open international system, for which my parents fought for in the second World War. It continues in Europe to counter Russian aggression, and it will continue to allow the United States military, in concert with our allies and partners, to deter a provocative North Korea and Iran from aggressive action in their regions. All the while, it provides money to continue our counterterrorist operations in various parts of the world. In short, President's Budget 2021 supports a ready, agile, and capable joint force that can compete, deter, and win across all domains today and in the future, and it targets specific investments in readiness, modernization, leader development, support to our people and their families. It invests in our readiness recovery that was built over the last 3 years. With this Committee's support, all the services are scheduled to meet their readiness recovery goals in this Future Years Defense Program (FYDP). It funds modernization for great-power competition across all warfighting domains, and it improves the safety, security, and reliability of our very critical nuclear enterprise. It invests in and stands up the Space Force, and increases resiliency, deterrence capability, and warfighting options in both space and cyberspace. It funds joint all-domain command-and-control to improve our interoperability across all the services and with our allies, and it invests in the advanced technologies that the Secretary mentioned to address the more complex threats and the faster pace as the character of war changes.

This budget also invests in our most valuable asset. The most valuable asset of the United States military is our people. It also funds the facilities, infrastructure, family support, and quality-of-life programs in a balanced way. It invests in education and talent management in order to develop our junior leaders with the values and intellectual agility to fight and win future conflicts. The lieutenants and ensigns of today will be the generals and admirals of tomorrow.

Ultimately, our military needs sustained, predictable, adequate, and timely funding to retain its competitive advantage in this era of great-power competition, with the understanding that we must

be good stewards of the resources entrusted to us by the American people and by Congress.

I want to thank this Committee for your continued support to all of our military. I look forward to answering your questions.

[The prepared statement of General Milley follows:]

PREPARED STATEMENT BY GENERAL MARK A. MILLEY

INTRODUCTION

Chairman Inhofe, Ranking Member Reed, distinguished Members of this Committee, it is an honor to testify before you today on the President's Budget for fiscal year 2021.

It remains my distinct honor and privilege to represent the soldiers, sailors, airmen, and marines of the United States Armed Forces—the best-trained, best-equipped, and best-led military force in the world. America's servicemen and women stand watch in the air, land, sea, space, and cyberspace defending our Nation and protecting the values bestowed upon us in the Constitution.

The United States military is a vital component of U.S. national power to deter great power war and protect the security of our Nation. Should deterrence fail, we are prepared to fight and win our Nation's wars against any potential adversary.

The last four defense budgets Congress passed have done much to address readiness shortfalls, and reduce the backlog of deferred procurement and modernization, resulting from sequestration in the Budget Control Act of 2011, repeated continuing resolutions, and simultaneously fighting two contingencies. Still, readiness and modernization challenges remain. Our competitors are making steady gains and are closing the gap in all warfighting domains. It requires sustained, predictable, adequate, and timely budget authorizations and appropriations to effectively compete in an era of great power competition.

I applaud the Bipartisan Budget Acts of 2018 and 2019 for improving predictability by authorizing a funding baseline in two-year periods. I especially thank Congress for an on-time fiscal year 2019 appropriation. Unfortunately, continuing resolutions for fiscal year 2020 reduced predictability again. I urge Congress to continue providing two-year funding baselines to improve our planning, and to pass an on-time appropriation for fiscal year 2021 so our Department can most effectively apply taxpayer dollars to our national defense.

The President's Budget for 2021 requests $705.4 billion, consisting of $636.4 billion for base requirements and $69 billion for Overseas Contingency Operations. It is a product of many hard funding choices. It aligns resources to the strategic objectives outlined in the National Security Strategy (NSS), National Defense Strategy (NDS), and National Military Strategy (NMS), and delivers a ready, agile, and capable Joint Force that can compete, deter, and win across all domains today and in the future.

Specifically, the Department's President's Budget 2021 request makes investments in four priority areas: improving Joint warfighting readiness, developing the future Joint Force; developing Joint leaders; and supporting our troops and their families. These investments prioritize capability and capacity while reforming the department for better performance and accountability. They also reaffirm our commitment to existing Allies and partners, while helping attract new partners to advance U.S. interests around the world. President's Budget 2021 provides the best balance of resources to address the security challenges we face today and in the future.

STRATEGIC ENVIRONMENT

As we begin the third decade of the 21st Century, we are in an era of great geostrategic change and face a complex range of challenges. International institutions and norms are under attack and the free and open order that has brought prosperity and great power peace since the Second World War is being challenged every day. We face threats to the Homeland and our national interests from state and non-state actors across every domain—land, sea, air, space, and cyberspace. While the nature of warfare is constant, the character of war frequently changes due to advances in technology and how humans apply technology in the conduct of war.

The NDS provides guidance for how we use military force today and in the future. It emphasizes the return of great power competition and prioritizes our efforts for long-term competition with China and Russia. It also directs us to deter and counter

the regional influence of North Korea and Iran while consolidating our gains against violent extremist organizations (VEOs). This strategic framework—not meant to be predictive of future conflicts—informs our planning, capability development, risk assessments, and investments. Each of the challenges outlined in the NDS threaten our national interests to preserve great power peace, and protect the American people, our Homeland, and the American way of life.

China seeks to undermine the free and open Indo-Pacific, our global alliance structure, and the status quo of powers around the world, by ignoring international norms, standards, and laws. Additionally, the Chinese Communist Party exports authoritarian practices around the world to undermine United States interests. They assert control of disputed spaces in the Indo-Pacific region through a campaign of low-level coercion and use of "through a campaign of low-level coercion and use of "through a campaign of low-level coercion and use of "through a campaign of low-level coercion and use of "

Russia is attempting to undermine the credibility of our NATO alliance, and United States credibility globally. Opportunism is a cornerstone of their behavior in the strategic environment to exploit political instability and uncertainty. Moscow uses information warfare, cyber operations, and political influence to achieve their objectives around the world. We have seen examples of revanchist behavior in their invasions of Georgia and Crimea, activities in the Donbas, and backing of authoritarian regimes in Syria and Venezuela. Since 2016, we have worked to counter their efforts to sow doubt in democratic processes and to exacerbate societal divisions in Europe and the United States.

China and Russia have invested in capabilities designed to nullify our strengths and exploit perceived weaknesses—specifically targeting our ability to project power and operate freely around the world.

Despite the diplomatic thaw between the United States and the Democratic People's Republic of Korea, North Korea threatens our regional Allies and our Homeland with nuclear and ballistic missile capabilities. We must have a force posture to deter and defend against these threats, as well as Pyongyang's extensive conventional forces. The Joint Force must maintain readiness on the Korean Peninsula, as well as in defense of our Homeland, to be prepared for multiple contingencies.

Iran is the world's largest state sponsor of terrorism, including groups that threaten United States personnel overseas and in our Homeland. Iran has taken advantage of instability to expand its influence through partners and proxies to challenge the interests of the United States and our Allies and partners. Tehran also uses covert and overt military action to restrict our military and economic access to the Middle East, especially threatening freedom of navigation along commercial maritime routes. Recently, the Iranian regime's attacks have become more aggressive and they are taking steps to resume development of nuclear weapons. Iran continues to develop cruise and ballistic missiles, improve their intelligence capabilities, and undertake malicious cyber activities intended to challenge our competitive advantage. to develop cruise and ballistic missiles, improve their intelligence capabilities, and undertake malicious cyber activities intended to challenge our competitive advantage.

Violent extremism is a generational, transregional struggle requiring sustained political, fiscal, and military solutions. While we have achieved significant progress in our counterterrorism efforts, the threat to the United States and our Allies remains. With a coalition of like-minded nations, we continue to apply military pressure against VEOs in Afghanistan and Syria to protect the American people from terrorist attacks against the Homeland. Our military strategy remains to work by, with, and through Allies, partners, and local forces; however, a coordinated, whole-of-government approach is necessary to address the underlying conditions of violent extremism.

To meet these priority challenges, the Department requires a flexible and agile Joint Force with the capability and capacity to respond to any contingency now and in the future. We must be able to adapt quickly to the rapid evolution in advanced technologies to compete and win against potential adversaries. Our President's Budget 2021 request targets specific investments in readiness, modernization, leader development, and support to our people and families to retain overmatch in an era of great power competition.

IMPROVE JOINT WARFIGHTING READINESS

The U.S. Armed Forces are prepared to defeat any adversary that threatens the Homeland or its vital national security interests around the world. Investment in readiness is essential to maintain this posture, and readiness continues to be a focus of our budget request this year.

The President's Budget 2021 builds on readiness improvements from fiscal year 2017 to fiscal year 2020 with a funding profile that meets readiness recovery goals for all Services within the Future Years Defense Plan (FYDP). The President's Budget 2021 requests $125.1 billion to robustly fund readiness across the Joint Force, augmented by cooperation with our Allies and partners. This represents an increase of $9 billion, or 7.8 percent, over fiscal year 2020 enacted levels to continue readiness recovery and meet global readiness needs. The President's Budget 2021 funds major readiness accounts to grow operational availability and recover from years of wartime operations and budget instability. It will replace aging equipment with accelerated procurement of newer gear, improve training of ground and aviation elements, and invest in manpower with critical skills. Specific readiness status and major priority investments by Service follow.

U.S. Army: Recent budgets have reversed readiness declines and facilitated modest gains, achieving and sustaining the Army's highest readiness levels in the last 3 years. Since 2016, the Army's non-deployable rate has decreased from 15 to 6 percent, and over the last year, active component Brigade Combat Team average readiness is holding steady at 74 percent. Despite significant progress recovering core mission readiness, global operational demands continue to challenge the Army's ability to sustain its gains and to achieve the readiness levels needed to meet contingency planning requirements.

The President's Budget 2021 budget enables the Army to maintain its current tactical readiness levels while improving its strategic readiness. The President's Budget 2021 budget produces modest end strength growth to build cyber operations and electronic warfare (EW) capabilities, and increases funding for ground and air readiness—resourcing training strategies at 100 percent for the Active Component and 80 percent for the Reserve Component. The budget proposal also enables the Army to improve training, support, and command facilities through the activation of a 4th Corps headquarters.

U.S. Navy: Navy readiness bottomed out in June 2018 and has trended slowly upwards after the implementation of a readiness recovery strategy. By October 2019, the Navy improved mission-capable rates for all aircraft types and achieved the desired 80 percent mission capable rates for F/A–18 E/F and EA–18G primary mission aircraft inventory. However, complete readiness recovery requires continued sustained implementation and funding of the recovery initiatives to address challenges in supply, munitions, and infrastructure. In the long term, the Navy must balance sustainment of the current and growing force with the need to increase capacity and field new capabilities.

The President's Budget 2021 implements the NDS and prioritizes readiness recovery of force elements required in a major contingency while sustaining a combat-credible force forward. The Navy prioritizes funding for its people—growing its end strength by 3,970 personnel over the 2020 projected level. This growth will eliminate shortfalls in critical warfighting readiness specialties, align manpower to force structure as the Navy grows the Fleet, and reduce manpower gaps at sea. The Navy is focused on data-driven process improvements that drive the implementation of industry best practices for aviation readiness and ship maintenance. Maintaining and improving public and private shipyard infrastructure capacity is essential to shipbuilding and conducting required maintenance of a growing Navy. Planned Naval Shipyard investments and completion of Naval Shipyard optimization analyses are a necessary step to minimize maintenance delays, increase on-time deliveries, and incentivize private shipyards to grow much-needed shipbuilding capacity. maintenance of a growing Navy. Planned Naval Shipyard investments and completion of Naval Shipyard optimization analyses are a necessary step to minimize maintenance delays, increase on-time deliveries, and incentivize private shipyards to grow much-needed shipbuilding capacity.

U.S. Marine Corps: Funding increases have enabled the Marine Corps to sustain its role as a ready, agile, and expeditionary force ready to meet global demand. Current unit readiness remains high for deployed forces and total force readiness continues to trend upward. However, the Marine Corps has entered a period of transformation to build a force that is postured to meet the demands of the rapidly evolving future operating environment and align with the NDS.

As an inherently naval force, President's Budget 2021 enhances the Marine Corps' capability through naval integration. It prioritizes investments that incorporate revolutionary warfighting concepts, such as littoral operations in contested environments, expeditionary advanced base operations, and distributed maritime operations. The President's Budget 2021 invests in ground combat capabilities by divesting known legacy and low-demand programs that do not meet future operating requirements and reinvests these funds in capabilities that enable a naval expeditionary force-in-readiness to operate inside contested maritime spaces. Marine avia-

tion continues to advance through ongoing and comprehensive readiness recovery efforts to increase the capacity and quality of mission capable aircraft.

U.S. Air Force: Fiscal year 2017 to fiscal year 2019 funding contributed to readiness improvements across various platforms by investing in pilot training and production, depot maintenance, and aviation spare parts, while increasing flying hours. Increased aircraft mission capable rates have resulted in over 75 percent readiness of the Air Force's pacing squadrons. However, aging programs, such as the legacy tanker fleet, and programs that lack sufficient sustainment capacity to support total inventory, prohibit additional improvements in the Air Force's readiness. The President's Budget 2021 divests of programs like these and reinvests in new procurement and advanced technology to improve readiness, address future threats, and lower aircraft sustainment costs.

The number one priority of the Air Force is multi-domain command and control. This investment allows current and future platforms to instantly share important data, and increases effectiveness, survivability, and lethality. The Air Force is also continuing to leverage data analytics, innovation, industry best practices, and cutting-edge technologies to reduce sustainment costs, increase efficiency, and improve weapon system reliability. The President's Budget 2021 addresses operational training infrastructure shortfalls through targeted near-term investments and a long-term funding strategy to upgrade both its live and synthetic training infrastructure.

U.S. Space Force: We are expeditiously building the newest branch of the Armed Forces—the Space Force—as a co-equal Service under the Department of the Air Force. To complement U.S. Space Command, which the President established as a unified combatant command in 2019 to integrate Joint Force operations in the space domain, the Space Force will focus on the title X responsibilities of manning, training, and equipping U.S. Forces to maintain a competitive advantage in space. We expect the Space Force to be an agile and lean organization that will initially grow its membership from the U.S. Air Force, and eventually other Services pending Congressional approval. There is much work to do to establish the mechanisms to commission, enlist, appoint, train, equip, and support members of this new military service. We look forward to working with Congress in these areas to create the world's most capable Space Force.

DEVELOPING THE FUTURE JOINT FORCE

To effectively compete and deter in a time of great power competition, we must modernize existing capabilities, accelerate the evolution of advanced technologies, and develop and implement joint warfighting concepts.

Analytical assessments, like the Joint Military Net Assessment, the Chairman's Risk Assessment, and Contingency Planning Guidance, allow us to assess risk, estimate the future operating environment, and make comprehensive, threat-informed decisions. Based on these assessments, the Joint Force has prioritized the following capability areas as critical to achieve the NDS objectives and counter tomorrow's expected challenges.

Nuclear Deterrence: As the Department's top priority, President's Budget 2021 robustly supports the nuclear enterprise under the NDS and the 2018 Nuclear Posture Review. It invests in nuclear modernization to improve the safety, security, and reliability of our nuclear enterprise, and supports simultaneous recapitalization of capabilities across all three aging legs of the nuclear triad and sustainment of legacy systems. Key investments are in the Ground-Based Strategic Deterrent, the B–21 bomber, the *Columbia*-class submarine, Long-Range Stand Off Weapon, missile warning, and resilient assured Nuclear Command, Control, and Communications.

Space: The President's Budget 2021 requests funding to increase our resiliency, deterrence capability, and warfighting options in the space domain. It includes funding to modernize existing space assets, diversify offensive and defensive space control capabilities, and improve space-based intelligence, surveillance, and reconnaissance (ISR). The budget also requests continued funding for the Space Development Agency's first project to develop a new data transport layer to enhance connectivity among our warfighting platforms. As they move forward, they will set an example of how the Department can move quickly and leverage industry best practices and innovation in developing new space capabilities.

Cyber: The President's Budget 2021 request prioritizes the defense of DOD Information Networks, improves offensive and defensive cyberspace operations capabilities, and matures our cyberspace command and control structure. It continues to build, train, and equip Cyber Mission Forces. It also makes investments in next-generation encryption to secure DOD communications, and invests in secure, cloud-based information technology for the Department's business and mission operations through the Joint Enterprise Defense Infrastructure Cloud contract.

Command and Control: The President's Budget 2021 increases investment in Joint All-Domain Command and Control (JADC2) to create an agile, interoperable Joint Force that can fight with fully networked platforms, sensors, weapons, and command and control capabilities, even through contested environments. The Air Force's Advanced Battle Management System (ABMS) and our collective digital modernization efforts across the Department increase our speed, agility, and capability to fight and win in all-domain operations.

Air: The President's Budget 2021 requests funding to modernize air capabilities, while divesting legacy air programs. It maintains tactical aviation capacity through continued procurement of both 4th and 5th generation aircraft, including F–35, F/A–18 E/F, and F–15EX aircraft. It invests in developing Next Generation Air Dominance platforms to meet future Joint Force requirements. President's Budget 2021 reduces the size of the B–1 fleet, but funds selective legacy bomber upgrades, to improve aviation readiness, while investing in development of the future nuclear-capable bomber, the B–21 Raider. It also requests funding to build the future tanker fleet.

Sea: The President's Budget 2021 requests funding for a battle force of 306 deployable ships in fiscal year 2021, including funding to recapitalize the *Columbia* strategic ballistic missile submarine, our Nation's sea-based strategic deterrent. The President's Budget 2021 invests in a more lethal and innovative maritime force through increased research and development for maritime strike tomahawk, the hypersonic Conventional Prompt Strike weapon, unmanned systems, a family of lasers, cyber and information warfare capabilities, and Marine Corps expeditionary equipment. Our budget request also includes key readiness investments in ship depot maintenance and ship operations. research and development for maritime strike Tomahawk, the hypersonic Conventional Prompt Strike weapon, unmanned systems, a family of lasers, cyber and information warfare capabilities, and Marine Corps expeditionary equipment. Our budget request also includes key readiness investments in ship depot maintenance and ship operations.

Land: Further developing long-range fire capabilities remains a priority in the land domain. The Army and Marine Corps intend to field an initial ground-launched cruise missile capability in the next few years. The President's Budget 2021 also invests in the recapitalization of combat vehicles with the fielding of the Joint Light Tactical Vehicle, which provides increased protection and restored payload characteristics compared to the legacy High-Mobility Multi-Wheeled Vehicle (HMMWV) fleet. Army Combat Vehicle and Marine Corps Amphibious Combat Vehicle investments will help meet the Joint Force's operational needs in the face of the changing character of modern land warfare.

Missile Defeat and Defense: The President's Budget 2021 strengthens missile defense of the Homeland, deployed forces, and our allies and partners. It supports continued investment in the modernization of critical near-term layered capabilities to meet the threats of today while building additional capacity and lethality to outpace evolving threats. Additionally, this budget is aligned with the Missile Defense Review which places emphasis on Homeland Ballistic Missile Defense and reduces risk by pursuing multiple developmental efforts. These investments support a flexible, adaptable, and expanded missile defense architecture on the ground, in the air, and from the sea that leverages space technology.

Advanced Technologies: Great power competition requires the Department to be on the cutting edge of advanced technologies. Hypersonic weapons, artificial intelligence (AI), and autonomous systems are a few of our key advanced technology investment areas. President's Budget 2021 represents the Department's largest-ever investment in research, development, testing, and evaluation. Through this infusion of funding, we will draw on the power of America's industrial base and technology sector as partners in our modernization and innovation efforts.

The President's Budget 2021 increases our investment in hypersonic weapons development. This request supports promising long-range conventional and advanced rapid-response strike capability development in each military department, including the Army's Long-Range Hypersonic Weapon, the Navy's Conventional Prompt Strike, and the Air Force's Advanced Rapid Response Weapon. Hypersonic weapons provide an offensive capability against time-sensitive and high-value targets. They challenge adversary sensors and interceptors, and complement existing cruise and ballistic missile capabilities. Hypersonic weapons provide an offensive capability against time-sensitive and high-value targets. They challenge adversary sensors and interceptors, and complement existing cruise and ballistic missile capabilities.

President's Budget 2021 also increases our investment in AI research, prototyping, and fielding. The Joint Artificial Intelligence Center (JAIC) and Project Maven are leading cross-Service AI efforts, while each Service leads projects focused on their unique needs. Funding for the JAIC provides a common foundation upon

which multiple organizations can develop, test, certify, and share AI capabilities. JAIC also provides a single point of contact for government, industry, academia, and other Allies interested in collaborating with DOD on AI. Project Maven's application of AI to full-motion video exploitation demonstrates how the Department can to rapidly develop, test, and field AI capabilities to address operational problems. We are rapidly expanding our AI efforts to logistics, cyber operations, command and control, and semi-autonomous and autonomous vehicles, while we refine how humans will interact with this technology in our future.

The President's Budget 2021 also requests funding for autonomous and remotely piloted systems in the air, on and under the sea, on land and in space. These systems increase the capacity of our force, allow us to focus human efforts on more complex tasks, and enhance our speed of maneuver and lethality in contested environments. Combined with developments in piloted and optionally-piloted platforms, our advanced autonomous systems will enhance our speed of maneuver and lethality in contested environments.

Joint Warfighting Concept (JWC): Advances in technology and great power competition are driving us to refine our Joint Warfighting Concept. The JWC will provide a threat-informed capability development roadmap for all-domain joint maneuver warfare. We will harness the innovation within our force, the intelligence community, industry, and other sectors of America to develop and test this concept to ensure it reflects the best ideas for the future fight. President's Budget 2021 invests in Joint wargames and experiments so we can accelerate our learning and adapt concepts and capabilities faster than our adversaries.

DEVELOP JOINT LEADERS

In order to retain our competitive advantage into the 2030s and beyond, we are refining Professional Military Education (PME) and talent management to develop Joint Leaders with the skills, values, and intellectual agility to fight and win the wars of tomorrow.

Our President's Budget 2021 complements measures we are taking to reorient the PME enterprise to prepare Joint leaders to operate globally, across all domains, and in an environment where the character of war is constantly changing. Measures include shifting PME curricula from a predominantly topic-based approach to instead focus on outcomes, and modifying instruction to emphasize ingenuity, military professionalism, and historical insights in the art and science of warfighting. The Joint Chiefs and I are committed to ensuring our PME enterprise can continuously assess, adapt, and innovate.

Our collective talent management enterprise, based on individual Service personnel processes, must likewise continuously assess, adapt, and innovate. The positive benefits of adaptation and innovation in our PME enterprise are sub-optimized if we do not wisely identify and nurture the development of the human talent in the Joint Force. Our best and brightest must be identified, assigned to schooling, and employed in such a way that maximizes both their potential and the benefit for the Joint Force. Careful selection of who goes to school and when, who teaches them, assessments of cognitive abilities, and purposeful post-PME assignments require adaptation and innovation to realize this vision.

The increased speed, complexity, and ambiguity of today's strategic environment require that we develop strategically-thinking joint warfighters who can critically and creatively apply military power to inform national strategy, conduct globally integrated operations, and fight under conditions of disruptive change. Through rigorous, specialized military education combined with enhanced talent management approaches, we will provide the Joint Force intellectual overmatch and competitive advantage in all domains.

TROOPS AND FAMILIES

The United States military is the strongest in the world because of our people. We maintain a resilient and adaptable military by providing unwavering support, care, and leadership to our troops and families, to include our extended family—the civilian employees who serve across the Joint Force. troops and families, to include our extended family—the civilian employees who serve across the Joint Force.

The President's Budget 2021 requests funding for family support initiatives, to include child care for over 160,000 military children and various youth programs serving more than 1 million dependents. President's Budget 2021 also requests a significant investment in a variety of military spouse programs. These include family advocacy, financial readiness, and the Military OneSource network. We are also implementing programs to offset the costs of acquiring and transferring professional licenses for our military spouses.

In broad terms, President's Budget 2021 focuses on improving our facilities infrastructure and maintenance to support operational and training readiness, while also providing our military families safe, high-quality residences. In recognition of the deficient conditions with some of our base housing, each of the Services has enhanced oversight of their public-private housing partnerships consistent with the Fiscal Year 2020 NDAA requirements.

America's military operates globally and at a high operational tempo. We must keep the trust of our servicemembers and their families by ensuring that they continue to receive superior quality of life benefits. Our All-Volunteer Force will continue to be the greatest in history only if we continuously affirm how much we value the service that our military and civilian members provide their country.

CONCLUSION

The United States Armed Forces is a flexible and adaptable force ready to deter, fight, and win our Nation's wars. The President's Budget 2021 budget request increases the lethality of the force by improving readiness, developing the Joint Force of the future, developing Joint leaders, and taking care of our troops and their families. I appreciate the support of Congress to provide sustained, predictable, adequate, and timely funding so America's Armed Forces will achieve all-domain dominance now and into the future.

Chairman INHOFE. Thank you, General Milley.

Because of a scheduling problem, we'll begin our questions with Senator Cotton.

Senator COTTON. Thank you, Mr. Chairman. I appreciate your consideration. I have to go preside over the Senate in 10 minutes, known as presiding officer duty, which Lieutenant Esper and Lieutenant Milley could relate to staff duty, back in their days. It's a duty, not an honor, and only the most junior personnel get to pull it.

Secretary Esper, I want to commend your remarks at the Munich Security Conference about the threat that Huawei poses to the United States and our NATO allies. Unfortunately, it doesn't seem like all of our NATO allies got the message or agree with it. Could you talk about the threat that Huawei's presence in Europe, especially in nations where we have troop presence, threatens our security and NATO security?

Secretary ESPER. Yes, Senator. Since my first NATO Ministerial—Defense Ministerial, in June of last year—so, I've been to three or four now—I've had a common message, one of many, and this is the threat that Huawei technology imposes on our networks. The message has been that if countries—if our NATO allies incorporate Huawei technology, it may very well have a severe impact on our ability to share information, to share intelligence, to share operational plans, and for the alliance to conduct itself as an alliance. The fact of the matter is, some countries get it, many more don't. It's a continual process, where we're trying to work. I think we also need to work together, some countries, on alternatives to Huawei, because otherwise we will find the alliance compromised, in due course.

Senator COTTON. Should some of our allies in Europe move forward with Huawei in their networks, will we have to at least consider our force posture in those countries, given what it means for the security and privacy of our troops and their families?

Secretary ESPER. I think, Senator, depending on how they move forward, we're going to have to assess what they've done and how they've done it, and make an assessment for each country, and then, from there, decide what we're going to do with regard to

those things I mentioned—information-sharing, intelligence-sharing, and so forth.

Senator COTTON. Okay. Last month, there were media reports that the Department of Defense had reservations about a regulation related to Huawei that the Commerce Department has proposed. That regulation has now moved forward—those objections. Could you just make clear for us, and maybe all the people that work for you directly, what the Secretary's position is on Huawei?

Secretary ESPER. Well, I'm very concerned about Huawei and other Chinese technologies, so I think we need to take a very careful eye with regard to our export controls—Chinese technology in general, Huawei specifically—and I think we need to be very conscious of Chinese technology in our system. By the same token, I also want to—I need to balance the equation and make sure we understand our own technology companies and ensuring that we have access to that, as well. But, overall, I'm very concerned about Chinese technology, espionage, cybertheft, you name it, that's ongoing, and has been for many years in our country.

Senator COTTON. Thank you.

On the topic of espionage, let's turn to Russia, and specifically the Open Skies Treaty, and how they use that, and how they cheat on it in their own country. Specifically, refusing to allow us to fly Open Skies flights over Kaliningrad, their strategically located enclave in Europe, and also around and near Georgia. Other witnesses in the past in front of this Committee, like General Dunford, General Milley's predecessor, Vince Stewart, former head of the Defense Intelligence Agency (DIA), have testified that Russia has been cheating on the Open Skies Treaty, that we don't get much benefit out of it as long as they're cheating, that—even called it a relic of the past. Do you think that the Open Skies Treaty still serves United States interests, given the fact that Russia continually cheats on that treaty?

Secretary ESPER. Senator, they have been cheating for many years. I raised this at the Defense Ministerial last month with all of our NATO partners, that we need to speak out more clearly about Russian noncompliance. You mentioned Georgia and Kaliningrad. Those are two good examples. We've also been denied access to military exercise over-flights. There are some other issues, that we cannot discuss in this session, which we should come and talk to you about. But, I have a lot of concerns about the treaty as it stands now.

Senator COTTON. So, I noted the President's Budget did not include money to recapitalize the Open Skies Treaty aircrafts, the OC–135s. But, I've also heard that there may be, as early as next month, the possibility of contracts announced to modernize those aircraft. What can you tell us about that use of funds?

Secretary ESPER. At this point in time, until we make a final decision on the path forward, I'm not prepared to recapitalize aircraft. I want to make sure we understand what the direction is. I would note that many of our allies that are in the Open Skies Treaty—and I've talked to them a lot; this is important to many of our NATO allies—that they have the means to conduct the over-flights. We still have the means to conduct over-flights. I was at Offutt Air Force Base just last week. I had a chance to walk on—to walk

about one of the OC–135s and talk to the crew and take a look at the aircraft. But, at this point in time, we're holding until we get better direction.

Senator COTTON. Good.

Thank you.

Chairman INHOFE. Senator Reed.

Senator REED. Well, thank you very much, Mr. Chairman.

Again, thank you, gentlemen, for being here today.

Mr. Secretary, let me return to some of my comments in the opening statement about the vacancies in the Department. There are two significant issues. One, as I highlight, civilian control of the military, which you need civilians to do that. Also, institutional capacity, people who have been on the job, have the credibility and the legitimacy of being confirmed and are not acting. Can you tell us why we have so many unfilled positions and acting personnel? We've—speaking for the Chairman—I think he's done a remarkable job of getting people through when they get up here. So, could you comment?

Secretary ESPER. Yes, Senator. Let me, first, give you a rundown on the numbers.

So, of 60 confirmed slots—it was 58 until the NDAA was passed, we added 2 new Space positions—so, of 58, 39 are currently filled, we have 2 nominees waiting on the floor for a vote, we have 4 nominees in committee, we have 2 intents to nominate, we have 4 more that are right behind them, and then we have 5 more in the process. So, of the balance, there are—I think that's six in the balance that we have to identify positions for.

Now, as you know, many of us have been in this town a long time. You—it becomes more challenging as you get into the fourth year of a first term, in terms of finding people. That is a challenge, and we also have challenges with moving people through the process. These are long processes. So, with regard to where we are, I don't think the situation is as dire as some may think, and we have very capable people in the positions. I've gotten the chance to work with them, both in their current role and my previous role as Secretary of the Army, and we have very capable DOD civilians—career civilians who also help out.

At no time have I had any concerns about civilian control of the military, to be frank. I know that's part of the NDS review. When I came in, my first week or two on the job, I instituted a number of changes, where the uniform and civilian leadership works together, sits together in weekly meetings. We, together, review our National Defense Strategy implementation. We, together, review OP PLAN implementation or development. We have a much better integration today between civilians and military than we did, I think, 9 months ago.

Senator REED. In regard to the nominations that are coming up to us, I don't think I'm alone when I was surprised that Elaine McCusker's nomination was withdrawn. From everything I have heard, she's a very capable and experienced individual. In fact, that's why she was nominated in the first place. To your knowledge, can you tell us why her nomination was withdrawn?

Secretary ESPER. Well, Elaine is a very capable and dedicated public servant, but the President has the right to choose his members, who he's going to nominate.

Senator REED. So, it was the presidential decision, not a recommendation by you or anyone else in the Department of Defense.

Secretary ESPER. Well, it was a PPO decision. At this point, I don't have any more fidelity at this juncture.

Senator REED. Well, again, I think one of the concerns we go back to is that your role, as Secretary of Defense, you should have a critical voice in all these nominations. That goes with the territory, and——

Secretary ESPER. Sure.

Senator REED.—you should have it, and if you didn't have it in this case, I think that is a problem, which I hope we can address.

The other area I spoke in my opening remarks was a Special Operations and Long-Intesity Conflict (SOLIC) position, and you realize that, over several years, through several NDAAs, we've tried to build up the capacity of the SOLIC to be a secretary-like individual. Again, we have a—someone who's an acting position. That's been since last June, when Secretary West retired. So, can you promptly provide the Committee with a plan for implementing, not just getting a person in place, but making that person act like a Service Secretary?

Secretary ESPER. Yes, Senator. First of all, thanks again. I think you brought this up a month ago when we sat down together, and I was not tracking it. That's on me. I have a high regard for SOLIC. Believe it or not, I worked as an IMA [Individual Mobilization Augmentee] reern bservist in SOLIC many, many years ago. But, since then, we've taken a number of actions, so we're pushing forward on the nominee. We are looking at—we are going to reconsolidate SOLIC back in the Pentagon. I have tasked the SOLIC to provide a number of recommendations on section 922 implementation. We will begin frequent meetings between the SOLIC and myself and/or the deputy on a routine basis. So, we're—and then, also committed to recruiting and retaining more talent in SOLIC. So, I think we're taking a number of steps to integrate SOLIC and to achieve what was in law that you talked about.

Senator REED. Thank you.

Secretary ESPER. And I look forward to updating you on this as we go forward.

Senator REED. Thank you.

Just a different topic here, but due to exceptional staff work on both the majority and minority side, we discovered, about 2 years ago, that many of our allies were not paying for fuel, the Saudis and Emirates, for example. It was about a $300 million bill. The Emirates, when confronted with it, paid up. The Saudis are still paying. But, just today, the Government Accountability Office (GAO) has released a report indicating that the Department has failed to secure reimbursement for more than $1 billion worth of support to other nations. I have no time left, but can you, briefly—very briefly—comment, and also indicate what you're going to do to collect the money, basically?

Secretary ESPER. Yes, sir. I've tried to track that number down. I can't find the billion-dollar number. I am tracking that with re-

gard to payments. They are caught up at this time. They've reimbursed us for approximately $113 million. There is still approximately $38 million outstanding in flying costs. But, I want to pull the thread a little bit more on that billion-dollar number to make sure I'm not missing something, and that——

Senator REED. Thank you.

Secretary ESPER.—GAO report is helpful.

Senator REED. Thank you.

Chairman INHOFE. Senator Fischer.

Senator FISCHER. Thank you, Mr. Chairman.

Mr. Secretary and General Milley, there's been a lot of reporting about the reduction in funding for the *Virginia*-class submarine in connection with the National Nuclear Security Administration's (NNSA) budget increase. Critics of nuclear modernization are equating concern for the Navy's shipbuilding plan with opposition to funding the NNSA, and are using some recent comments made by Acting Secretary Modly and also you, General Milley, to suggest that DOD does not support the current budget request for NNSA. Now, I share the concern for the Navy's shipbuilding budget, and Congress will have an opportunity to look at that. But, I know that you are both very strong supporters of nuclear modernization, and also, Admiral Richard was before this Committee when he was here several weeks ago testifying that there was no excess margin in the NNSA's budget. So, I just want to be clear on this. Do you both support the requested level of funding for nuclear modernization at the NNSA?

Secretary ESPER. Senator, I do, and if you don't mind, I'll give a little bit explanation. I think it's vitally critical that we recapitalize our nuclear triad. That's why we placed that as number-one defense priority, in terms of our funding. That means not just the platforms—the B–21, the ground-based strategic deterrent, and the *Columbia*-class submarine—but also nuclear command/control, and a few other things, like long-range strike. But, you also have to have the packages, the warheads, et cetera, the plutonium pits go with that. So, it's critical that those be funded and moved quickly forward so we can have them paired up in time to recapitalize, ensure that the strategic deterrent is modeginning in the year 2030.

Senator FISCHER. And there's no room for pausing——

Secretary ESPER. Ma'am, there——

Senator FISCHER.—the production——

Secretary ESPER.—there is no room for margin. I have been working with our folks at OSD [Office of the Secretary of Defense] and Admiral Richard to try and actually build margin into our current fleet so that we have some room. But, it's critical that we meet that timeline.

Senator FISCHER. General Milley?

General MILLEY. I absolutely support fully funding the nuclear enterprise. It's the number-one priority. It's kept the peace—world peace, actually, from great-power war for going on 7½ decades. So, I absolutely support that. I think what we're talking about is the HASC's testimony from last week. I was not involved in the decision to move the money from the SSN (attack submarines), but I fully support fully funding our nuclear enterprise.

Senator FISCHER. Thank you. I think it's important that the record reflect that.

Mr. Secretary, section 1039 of the 2013 NDAA requires the Nuclear Weapons Council to certify NNSA's budget and ensure it's adequate to meet requirements. Conferees clearly stated, in the accompanying report, their expectation that, through this provision, the Nuclear Weapons Council will, "take an active role in shaping and reviewing the NNSA budget as it is prepared for submission to Congress and negotiated with the Office of Management and Budget during the budget review process".

This year, the certification letter submitted pursuant to this provision read, "NNSA is unable to provide detailed budget information to support certification in advance of the budget release of the President's Fiscal Year 2021 Budget Request by the Office of Management and Budget. The NWC cannot perform the analysis required to produce a budget certification letter without this information".

I think it's obvious that the process is not working but what is your view of the situation, and how can we resolve this to ensure the intent of the provision is being met?

Secretary ESPER. Senator, I completely agree. I think this—we need to let the Nuclear Weapons Council work. I think that looking at budgets needs to begin very, very early, arguably in the late summer of the year before. I would like to have a look at that, as well. I want to make sure that we're prioritizing the right thing so that we have a capable strategic deterrent. I think if that were the case, then we would have been in a much different situation. We have already got agreement from NNSA to do that in DOE [Department of Energy], and I got an agreement also from OMB to support us on that. So, I think it's very important, and we intend to implement that, going forward.

Senator FISCHER. Thank you. As you stated earlier, this has to work together. It has to be on time in order to meet our number-one priority of the NDS.

Also, Mr. Secretary, in the time since the budget was released, we've heard complaints, including many here in Congress, about things that either weren't included or were perceived to be underfunded in this budget: ships, aerial refueling tankers, Stars and Stripes, rumors about a withdrawal from Africa, the European Deterrence Initiative, the list goes on and on. You've heard those. What's forgotten, sometimes, is that it is Congress that sets the funding level, not the administration.

So, Mr. Secretary, is it fair to say that these tradeoffs are the result of the lower top-line that was approved by Congress?

Secretary ESPER. They are, Senator. I would still scrub my budget really hard year after year, regardless, because I think it's necessary to do defense-wide reviews. But, as the Chairman mentioned up front, we have to get back on the trajectory of 3 to 5 percent annual real growth if we're going to modernize the force and implement the NDS.

I was shown a number, a few days ago, that if you'd go back to the Budget Control Act—I think it was August 2011—and the amount of funding we would have had if we hadn't gone that course, it's somewhere between 450 to 550 billion dollars lost that

we could have put into modernization, and so, that's the catchup we have to look at, at this point in time.

Senator FISCHER. Okay.

Thank you.

Chairman INHOFE. Thank you.

Senator Shaheen.

Senator SHAHEEN. Thank you, Mr. Chairman.

Thank you both for being here, and for your service.

Secretary Esper, I appreciate all of the comments that you've made about your efforts to find additional funding within your budget, given the constraints that you're looking at. But, as you're aware, I'm sure, last year the Department realigned $6.1 billion for its budget towards constructing a border wall along the United States southern border with Mexico. More recently, the administration is going to divert another $3.8 billion from the Pentagon toward the border wall. They're taking that from a number of programs, in—as Senator Reed outlined in his opening statement, including eight MQ–9 Reapers, which I—we heard, from General Walters, are very important as they're looking at ISR [Intelligence, Surveillance, and Reconnaissance] along the eastern European border.

So, I guess—explain to me how we can feel comfortable with raiding the Defense budget at a time when you're telling us you have needs and are expecting a shortfall based on a flatter budget for 2021. Why should we assume, if you can divert that kind of money for the border wall, that we should give you additional funding to address other areas of need?

Secretary ESPER. Senator, as you know, the southwest border was declared a national emergency by the President, based on what has been happening down there.

Senator SHAHEEN. And, as I'm sure you know, the Congress actually voted that we did not agree with that designation, and, in fact, it's only because the President vetoed it that that didn't change. I think there are some real questions about whether taking money that has been appropriated by the Congress, signed into law for another use, is actually legal and constitutional.

Secretary ESPER. Yes, Senator, I understand. It's with the declaration of the national emergency and—we were asked to support Department of Homeland Security (DHS). Border security is national security. With that, it is our understanding under the law that, as directed, we were able to transfer that money to support that, much like we do many other things, whether it's fighting wildfires or helping with floods, whatever the case may be. But, I think the larger issue is with regard to modernizing the force. We're talking about making some big investments that are going to require a divestiture of things we've done in the past in order to invest in the things we need in the future. I think the demands there pale in comparison to what is being used to support DHS on the wall.

Senator SHAHEEN. We had the Acting Secretary of DHS before the Appropriations Subcommittee last week, and he showed us numbers that indicated there are significant dollars there for additional construction on a border wall that they are not likely to use in the next year. So, it's hard for me to understand how we can

justify taking money that we need from our military to construct a wall along the southern border. I'm not going to ask you to respond to that, because I'm going to be running out of time, but I think it's a very real question. I certainly hope that we won't see, past this year, any further effort to take money from our military. I hope you will commit to that.

Secretary ESPER. Senator, at this time, we don't foresee the need, at this time, to draw upon these sources next year, and I will follow up with the Secretary to find out, because we want to support DHS, but not over-support DHS, if that makes sense.

Senator SHAHEEN. Thank you.

I want to commend you on, the day that you were sworn in, appointing a commission to deal with PFAS [Per- and Polyfluoroalkyl Substances] contamination. It is an issue for us in New Hampshire, as I know you're aware, as it is in so many other States. I'm sure you know that the Fiscal Year 2020 NDAA included a provision to phase out the use of fluorine-containing firefighting for military use by 2024. Can you give us an update on where the military is in finding an alternative?

Secretary ESPER. Yes, ma'am. We're working that issue hard. It's—to replacement, it's, what, the AFFF [Aqueous Film Forming Foam], I think. It's an acronym.

Senator SHAHEEN. Right.

Secretary ESPER. The three things we're focusing on is the replacement for that; number two, making sure we're taking care of our people and then the communities that they live in or near; and then, number three, making sure we understand the health effects on humans from these foams. So, the task force has been working very hard since I launched them, integrating well with the Environmental Protection Agency (EPA) and other parts of the Government. I hope to have a report come up here very soon, within a week or two, to update you on that and the progress we're making. I know we have some hard marks to make, in terms of replacing the current foam with a new mechanism. But, we've been putting a lot of dollars into researching that. I want to say, we went from $139 million last year to $200 million this year requested to tackle PFOS [perfluorooctanesulfonic acid], PFOA [perfluorooctanoic acid].0

Senator SHAHEEN. Well, thank you. I appreciate your continued commitment. I think it's something that we all need to work on.

Secretary ESPER. Yes, ma'am.

Senator SHAHEEN. Thank you, Mr. Chairman.

Chairman INHOFE. Senator Rounds.

Senator ROUNDS. Thank you, Mr. Chairman.

Gentlemen, first, let me begin by thanking you and your families for your decades of service. It is not unnoticed, and we most certainly appreciate what you have done.

General Milley, I'd like to begin with you. I—part of the discussion—and Senator Shaheen has started this discussion with regard to the resources that we have, and the need for those resources—I'd like to give you an opportunity to talk a little bit about modernization, but also I want to talk about readiness today.

I want to preface it by simply sharing that, over the last number of years, this Committee has received reports about the challenges

we have in readiness of our Armed Forces today, and the fact that, over a period of years, and the fact, as you've both alluded to, we've had—or we've been at war for 20 years, and that takes its toll. When it comes to the equipment that our young men and women use, I'm just going to list them out, and I'd like to have you, if you could, give us an update:

B–1s: May of last year, we had six of them that were actually operational.

F/A–18s: At one point a little over a year ago, it was reported that less than 40 percent, or at about 40 percent, were operational.

F–15Cs: You were limited to about 2 Gs, in terms of maneuvering, less than what a King Air would do in regular aviation.

You've got approximately—on F–22s, you've got perhaps 125 remaining that might be operational at a time, a percentage of those.

With regard to your nuclear submarines, your attack submarines, you've got four of them right now that are at dock. I believe the *Boise* may be in drydock now, but, nonetheless, clearly we've got a shortfall there of nuclear attack submarines that are sitting, waiting for their half-life to begin.

Along with that right now, I think you've got somewhere around 31 BCTs [Basic Combat Training] in the Army. I'd like to know—I think, at one point, we had as few as—less than single digits, the numbers that were ready to "fight tonight."

General Milley, are we making progress? And can you give us an update, just on these particular ones, with regard to where we may have improved on those numbers over the last couple of years?

General MILLEY. Thanks, Senator, for the opportunity.

What I'd like to do, if I could, is get you the specific numbers. They're on this card, but this card's classified. So, actual readiness data, by type weapon system, with numbers that you're talking about, is classified information. We don't want the enemy of our country to know all that. On the one hand.

On the other hand, I can tell you that it has improved, and I would put it in the—about a third or so—as I look at these numbers, about a third improved over the numbers that you probably saw anywhere between 12 and 24 months ago. So, there is—there's two steps forward, one step backward in some of this stuff, in terms of readiness, and we monitor it very, very closely every month. It has improved, and I can get you the exact data, if you'd allow me to do that in a classified way.

[The information referred to follows:]

[Deleted.]

Senator ROUNDS. Well, that's fine, sir, but I just want to make it clear, the numbers that I gave you, I received in a non-classified session. Matter of fact, in open session, just like this.

General MILLEY. Okay.

Senator ROUNDS. The reason for my point is not to be critical, but, rather, to point out how important it is that we have the resources available to you——

General MILLEY. Sure.

Senator ROUNDS.—to continue to make those improvements, and——

General MILLEY. Well, readiness is our number-one—in terms of the amount of money that we're putting towards this budget and in past budgets, we're trying to radically improve the readiness of the force, the "fight tonight" sort of thing, and, at the same time, you have to have balance for modernization, for the changing character of war, against those investments that the Secretary talked about earlier.

Senator ROUNDS. Well, and I think the fact that we're modernizing our nuclear weapon systems is probably absolutely——

General MILLEY. Sure.

Senator ROUNDS.—it is absolutely critical, because right now, based upon our nonmilitary capabilities——

General MILLEY. Right.

Senator ROUNDS.—they fear our military because of our nuclear capabilities as much as anything else.

General MILLEY. There's no question about it, that the—"peace through strength" is not just a bumper sticker. It matters in the whole idea of deterrence. You have to have the capability, and the will to use it, and your enemy's got to know that you have the capability and the will. So, the capability's important. That goes right into the readiness piece, and we want to make sure that our enemies know that we are ready. In my opening statement, I said we are ready. I don't expect you to take it on faith. I'd like to report out, in a classified way, exactly how ready, by type system, if I could.

Senator ROUNDS. Thank you.

Secretary ESPER. Senator, if I may, what you're looking at, it is a tradeoff between current readiness and future readiness, and Senator Fischer draw this out. I talk about the $450 to $550 billion of lost funding. That's really important when you're trying to recapitalize, whether it's the Army, Navy, Air Force, or Marine Corps, but particularly big capital projects, like shipbuilding. If you don't have that funding, if it's not predictable and steady for the industrial base, they just can't—you just can't build. What you do is—so, what you're doing is—as you know, it's like driving an old car; you reach the point where you're putting so much maintenance into the old car, you've got to buy the new one, or else it's a losing battle.

Senator ROUNDS. No question, sir, and you're making the point that I think we want to have made——

Secretary ESPER. Right.

Senator ROUNDS.—which is—and you can't do it without continued resources on an expected basis year to year. I think you are making progress, and I was hoping to be able to share some of that progress, but to say, if given the appropriate resources, we are making improvements, and will continue to. But, I agree, it's readiness versus modernization in many, many cases, and that tradeoff is tough to handle once in a while.

Secretary ESPER. Yes, sir.

Senator ROUNDS. Thank you, Mr. Chairman.

Chairman INHOFE. Senator Hirono.

Senator HIRONO. Thank you, Mr. Chairman.

We're all monitoring the coronavirus closely, and I appreciate the Department taking this seriously and working to keep our

servicemembers and their families safe. While in Hawaii we do not have any confirmed cases, we are a gateway for travelers from China, South Korea, Japan, so we must be exceptionally vigilant and coordinated.

Mr. Secretary, will you commit to me that the DOD will act quickly on requests made by the State of Hawaii to assist with response, in the event it is needed—I know there are some factors we have to meet—pursuant to the National Response Framework and DOD Directive 3025.18?

Secretary ESPER. Yes, ma'am, under title 10. Of course, title 32 would require action by the Governor first.

Senator HIRONO. Yes, I understand.

Secretary ESPER. Okay.

Senator HIRONO. That's my question.

So, Mr. Secretary, you say in your posture statement that the Indo-Pacific remains DOD's number-one priority region. I have a series of questions about the threat in this region, and, as I have only, now, 4 minutes left, I'd really appreciate your answers to be very brief, and a yes or no would be great.

In your statement, you say North Korea is seeking to build legitimacy through the development of a variety of nuclear, conventional, and unconventional weapons, and by growing its ballistic missile capabilities. Is the threat of North Korea's ballistic missile capabilities becoming increasingly dangerous?

Secretary ESPER. It's becoming increasingly complicated as they seek to modernize the——

Senator HIRONO. Yes.

Secretary ESPER.—full range of missile systems.

Senator HIRONO. So, I'd say that's a yes.

You say in your posture statement that the fiscal year 2021 budget request is directed toward achieving an "irreversible implementation of NDS" which includes enhancing missile defense capabilities pursuant to the 2019 Missile Defense Review. That's correct, isn't it?

Secretary ESPER. Yes. We are putting additional money into missile defense and defeat.

Senator HIRONO. And do the North Korean long-range ballistic missiles pose a threat to the United States, which, of course, includes Hawaii?

Secretary ESPER. Yes, if our intelligence is correct, they would.

Senator HIRONO. Yes, and you also state, your budget request, "increases missile defense capability and capacity to keep pace with adversary missile systems," while investing in a layered defense of the Homeland. But, Mr. Secretary, in spite of 4 years of authorizations and 3 years of appropriations from Congress, and your own 2019 Missile Defense Review, you have zeroed out the HDR Hawaii, which is the radar for Hawaii, which is part of a system that provides layered defense of the Homeland. Is this decision to zero out the funding for HDRH [Homeland Defense Radar Hawaii] a decision to not build this radar at all in Hawaii?

Secretary ESPER. Not necessarily, Senator. As you know, there—for many years now, we've had a problem with State and local authorities giving us permission to get onto that site and do what we need to do, if I recall correctly, and it seemed—the latest report we

had at the time of building the budget is, we probably wouldn't see any resolution for another year or two or three.

Senator HIRONO. So, does that mean that we can expect you to request—I am very familiar with certain delays with regard to the siting. So, does this mean that we can expect a request of money for the HDRH in fiscal year 2022?

Secretary ESPER. I think, when we see a light at the end of the tunnel with regard to getting clearance to build, yes, ma'am.

Senator HIRONO. Okay. That's good to know.

Because, otherwise, the decision to zero out the HDRH and reprioritizing the funds from DOD's number-one priority region, as you say, for another purpose, really doesn't make sense.

I'd also like to have a commitment from you now that you will not seek to repurpose F–20 funding for this radar that is still being used to continue the HDRH Hawaii contract.

Secretary ESPER. Senator, I'm not sure I can make that commitment, because I'm not sure I fully understand what you're asking. But, again, our——

Senator HIRONO. Well——

Secretary ESPER. What we're trying to do is, in the era of tight budgets, make sure we don't put money against something that has no possibility of being effected in the near term.

Senator HIRONO. Well, I don't know what you mean by the "near term," because——

Secretary ESPER. Well, in the——

Senator HIRONO.—this radar——

Secretary ESPER.—upcoming fiscal year——

Senator HIRONO.—this radar is part of a system, and was supposed to be pretty much operational by 2023, which means that it's—aside from the delays that I understand that's occurred, we're supposed to be on track, because that's what the National Defense Strategy calls for. So, in 2020, there was some $188 million. This is being expended right—even as we speak. So, I would like to know that you are not going to repurpose this funding that's already there——

Secretary ESPER. Well, Senator, if I recall the——

Senator HIRONO.—for other purposes.

Secretary ESPER. Yes, ma'am. If I recall the issue properly, it's—developing of the system is one thing, but if I develop a system and I can't put it somewhere, that it has no effect, it's wasted money.

Senator HIRONO. Well, you know that this contract is—as far as I know, Lockheed Martin is already building this radar. So, there is already a contract for them. This thing was supposed to be, in fact, operational in 2023. So, if we don't go ahead with this, I think that you're going to have some contractual things to deal with. But, you know, what I'm hearing from you is, aside from the delays that were caused by the siting, mainly, of this radar, that you have a commitment to pursue the radar and have it built in Hawaii as a part of our missile defense system.

Secretary ESPER. I am making a commitment to you that we, of course, intend to defend all 50 United States and territories with radars and effectors as necessary. What I don't under-—what I need to come back to you with is a better understanding where things lie. It's one thing to build a radar, but if I invest hundreds

of million dollars in the radar and then not—cannot place it somewhere, then it's wasted money.

Senator HIRONO. Of course I realize that. That's not what I'm asking.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Ernst is recognized.

Senator Fischer is presiding.

Senator ERNST. Thank you, Mr. Chair.

Thank you, gentlemen, very much for being with us this afternoon.

There are a few things that I'm very interested in as the chair of Emerging Treats and Capabilities, and, of course, one of those is hypersonics. Secretary Esper, if I could focus on that for a moment. A key component of our NDS is assessing and recalibrating our posture with regards, of course, to the great-power competition. China has a leg up—I can't—we can't dispute that—in developing technologies like a hypersonic aircraft and missiles. The technology could give users the tactical long-range capability to hit targets yet with such speed and surprise that defending against them is very, very difficult. Great concern to all of us.

So, how is the DOD investing in deconflicting research priorities across the services—we have a lot of research going on out there—to limit the duplicative spending on hypersonics?

Secretary ESPER. Thank you, Senator.

First of all, you're correct, hypersonics is one of our top priorities, in terms of developing capability, lethality in that field. We are doing very innovative work. I would tell you it's more innovative than what you would see coming out of Russia or China. I can——

Senator ERNST. Right.

Secretary ESPER.—assure you of that.

Senator ERNST. Good.

Secretary ESPER. We have maximized every dollar. We put into this year, I think it's $3.2 billion, and over the FYDP, to make sure that we get inventory out in the field as soon as possible. Each of the services has a variety of programs. DARPA [Defense Advanced Research Projects Agency] has programs, as well. Through either collaboration between the services or through work through our R&E shop under Dr. Griffin, we're working very hard to make sure there's not duplication, but, more importantly, sharing. We see a lot of sharing between the services. So, I'm very confident that, in the next few years, we'll be deploying hypersonic weapons, as the commanders need them, throughout the theater, but in the Indo-Pacific theater in particular.

Senator ERNST. Okay. Just to be clear, you said it's $3.2 billion over FYDA——

Secretary ESPER. No, ma'am, it's $3.2 billion this year.

Senator ERNST. This year, okay, and is that—you feel that that is sufficient——

Secretary ESPER. I asked multiple times to make sure, "Is that every single dollar we can put against it and effectively use?" In other words, there's no more—one more extra dollar would be a wasted dollar. I was assured multiple times that that was the max we could put into that.

Senator ERNST. Okay, and—thank you, Secretary. How does this fit into our nuclear modernization efforts?

Secretary ESPER. It certainly gives us—we're talking about conventional systems here—it gives us a—an incredible strike capability below the nuclear threshold, which is important, to reach out at long ranges to strike somebody with precision, at speeds of 5, 10 times the speed of sound, with great capability. It's going to give us a lot of reach, which is what we'll need in the—in a conflict against a near peer.

Senator ERNST. Absolutely. Thank you.

Mr. Secretary, I know that we're embracing innovation at every level possible—and I appreciate that—within the DOD, and we're modernizing to give our warfighters that tactical advantage over our adversaries. Of course, another area I'm interested in is quantum information systems technology. Again, one of Mr. Griffin's areas. But, we are exploring options for quantum integration in a variety of areas. However, we hear, from various industry, that DOD requirements are too broad for the current scope of research. What the industry leaders are recommending is that the DOD refine their requirements, and this can help drive unified efforts to advance rapidly first in the narrow area instead of slowly across a very large spectrum. Can you speak a little bit to some of the advances we're seeing in quantum information systems?

Secretary ESPER. Yes, ma'am. Quantum definitely is a top priority. It's probably in the top tier, if you will. Dr. Griffin's very passionate about this. I'll have to go back and get you an answer. Typically, what we ask of industry, though, is—they ask us not to give them requirements, per se, and they ask us to tell them the solution we're looking for, help us—tell them the problem we're trying to solve, and help them—let them help us develop the solution. So, this is a little bit different than what I typically hear, so I'd like to——

Senator ERNST. Okay.

Secretary ESPER.—run this down and come back to you on it.

[The information referred to follows:]

Secretary ESPER. Where there is a clear mission payoff, and technology is mature enough that we have clear performance metrics that will get us to that mission payoff, the Department is ready to push ahead and advance quickly. But the state of the art for most quantum technologies is not there yet. In some cases, our system analysis shows us that the speculated potential of the technology does not translate directly into a military mission payoff. In other cases, where we still anticipate a clear military mission impact, the technology readiness level is not yet mature enough to warrant immediate acceleration.

The most significant advances, from a military standpoint, are the refinement and miniaturization of portable atomic clocks. There is no one-size-fits-all solution to military timing needs, and progress has been made on a number of form-factors and performance levels. Small, low-power versions of high-performance atomic clocks have recently been developed under the Defense Advanced Research Projects Agency Atomic Clocks with Enhanced Stability Program. Other, chip-scale atomic clocks are now available commercially due to years of Department of Defense research investments, and we continue to fund even higher performance atomic clocks for new military applications. These will play an important part for position navigation and timing resilience of our joint forces in GPS-denied environments.

Several quantum sensors have demonstrated amazing precision in laboratory experiments and are on a path toward rapid maturity for military application. As one example, we have seen impressive progress with quantum gyroscopes and accelerometers. These have the potential to be incorporated in future strategic grade inertial guidance systems at a fraction of today's cost.

In quantum computing, both academic and commercial progress in quantum computing hardware continues to be a national strength. Google, IBM, Microsoft, Honeywell, and several venture-capital-backed startups have been making significant investments in the field. Because there are big open questions about the military utility of these machines, and because the computer science of quantum algorithm development is so early in its development, our research labs are partnering with industry leaders to understand which military computational problems can be addressed using these new quantum computing machines.

Finally, in the defensive role, great progress is being made to develop new public cryptographic standards and update our cryptographic systems to ensure that the U.S. military is not vulnerable to attack from a quantum computer should our adversaries ever gain access to a large enough machine.

Senator ERNST. And certainly, we'd love to partner on that. It's just critical that, in some of these areas that we see in Emerging Threats and Capabilities, a lot of the discussions that we have, that are very focused on advancing technology and working with industry partners, small businesses, and so forth——

Secretary ESPER. Right.

Senator ERNST.—in that area.

But, I do appreciate you both, gentlemen, very much for being here today, and look forward to working further with you.

Secretary ESPER. Yes, ma'am.

Senator ERNST. Thank you.

Senator Fischer [presiding]: Senator Jones.

Senator JONES. Thank you both for being here, and for your service. I really appreciate your opportunity to come here.

Secretary Esper, it would come as no surprise to folks here that I have been advocating Redstone Arsenal to be the head of Space Command. You and I have talked about that——

Secretary ESPER. Yes, sir.

Senator JONES.—a good bit, and in May of 2019, before you were even the Acting Secretary, the list was winnowed down. There was a series of visits, an extensive process that was winnowed down to a few sites, and Redstone Arsenal was a part of those. Space Command was supposed to be announced in the fall. It wasn't, and we're still—now we're in March, it's still not, and then, yesterday, Lieutenant General Thompson testified before the House Armed Services Committee that the Air Force had been directed—and he emphasized the word "directed"—to go back and open this up. He said open up the aperture and look at all of them, including some nontraditional locations, and that they would establish the criteria, which I thought had already been established months, if not a couple of years, ago, and that none of these—the list—Redstone Arsenal and others were on there. So, you know, a cynical person would, in today's world, think that there was some political electoral politics coming into this—into play into this, because Congress has wanted to do this, and we've been supportive, but now we're going to get delayed again in opening this process up.

So, I have a series of questions. Number one, did this come from the White House? If so, who? If it didn't—or if it did, was there pushback? If not, if it came from you or others—tell me how that process up to open this up again, because a lot of folks have been looking at this for a long time.

Secretary ESPER. Yes, Senator. It came from me.

Senator JONES. All right.

Secretary ESPER. I'm the responsible party. During my talks on the Hill, prior to my nomination—more particularly, after my hearing here—I visited the House, and I heard from members, on both sides of the aisle, that they felt that the process that had been run was unfair and not transparent, and there were a number of complaints. So, I directed, at that time, that we pause in place. I took a briefing on it, along with Deputy Secretary Norquist, and we did not feel, as well, that it was transparent enough, that enough States, Members, et cetera, had a chance to participate. So, we directed that it be revisited and a different approach be taken, where they outline the criteria, the screening criteria by which a place would meet as a qualifying material, that we would go out to all members and offer them to nominate locations, if you will. We'd screen from there. But, do a very iterative, transparent thing, where members can also comment on the criteria, we would update at various points in time, and then keep narrowing it down, much like we did on Futures Command, till you get to the final site, so that everybody had confidence that it was fair and there were no politics involved in it, and that it was the best site for the mission at hand.

I regret to say that that process began late. I had another revisit with them, about a month ago, which is what probably prompted that testimony. But, I'm the one that did it. It was my initiative, simply to make sure that there was transparency and buy-in and consent from members who were——

Senator JONES. How long will the process take now?

Secretary ESPER. It's going to take several months. I think—I don't see anything being announced—if it helps to assure you, I don't see anything being announced before the election.

Senator JONES. All right. Great.

Secretary ESPER. In fact, I would probably—regardless, I think it's best to keep it out of the election, for the reasons that you cited.

Senator JONES. All right.

Let me ask you about some—a concern that I think has been raised by a couple of folks here, and that is the transfer of funds to build the border wall. Taken out of that was $261 million out of Mobile, Alabama, at Austal, to build an EPF [Expeditionary Fast Transport], which is, I think, a very, very important ship, and it was one that is in part of this transition. Austal, as you know, is the only shipbuilder that's delivering ships to the Navy on time and on budget. Was any consideration given to how that might impact folks like down in Mobile when these decisions were made? And the first part of that question, though, is—I want to make sure I understood the reasons. The reasons for this part of the money is strictly for trying to close off drug smuggling. It has nothing to do with immigration, but drug smuggling. Is that correct?

Secretary ESPER. It's—under this authority, the 284 authority, it's directed at counterdrug, narcotrafficking routes, if you will, in support of DHS. That's the provision of law under which it falls.

Senator JONES. All right, and I'll——

Secretary ESPER. I'm sorry.

Senator JONES. Talk to me about Austal.

Secretary ESPER. Yes, sir. So, what we tried to do in this process is to make sure that we could find, as best as possible, a way to

look at the problem that was objective and apolitical, and that we could stand behind. The staff came up with—as they looked at it, is the fact that the items that were either not requested in the fiscal year 2020 budget or items that were "early need," either. So, either "excess to need" or "early to need" was a very clean-cut line that took—did not take politics or anything like that into account, and it was very objective. That was the standard by which we went. I consulted with my Service Secretaries. The Chairman consulted with the Chiefs of Staff, the Joint Chiefs, and that was the basis upon which we made the decision, recognizing fully that there are a lot of different players and equipment and things caught up in that, but that was the way we approached it.

Senator JONES. All right. Well, I will—out of time, but I will have some questions for the record, including maybe a little bit more of an explanation on the Space Command, and also a report, the current conditions of facilities used by the Senior Reserve Officer Training Corps at minority-serving institution, another on the commitment to the Junior ROTC Pilot Program—Scholarship Program that we're doing, and also——

Secretary ESPER. Great program, by the way.

Senator JONES. Thank you, and also, review a report about the Department of Defense Child Development Center. So, I'll have those for the——

Secretary ESPER. Yes, sir.

Senator JONES.—questions for the record.

Thank you.

Thank you, Madam Chairman.

Senator FISCHER. Senator Cramer.

Senator CRAMER. Thank you, Madam Chairman.

Thank you, Secretary and General, for your service, for your appearance today.

A special thank you, Mr. Secretary, for your recent trip to Minot, and please thank Leah, as well. It was an exceptional day for the airmen and missileers in Minot. I hope you took something away from it, as well.

Since we're on the topic, and since the——

Secretary ESPER. I went there in the winter, so——

Senator CRAMER. You—well, the fact you came in February does add to your "street cred," without a doubt, but you also got to see them at their best, in the toughest conditions, working with some very old equipment——

Secretary ESPER. Right.

Senator CRAMER.—as you noticed, no doubt—some very old airplanes flown and maintained by some very young airmen, and some very old missiles maintained by some very young missileers, and so, we appreciate that—the priority of modernization, obviously.

With regard to the missiles, specifically, you know, ' since the GBSD [Ground Based Strategic Deterrent] has been on the planning board, I've pressed pretty hard about the timeline, and particularly knowing there are detractors here and there, and, of course, the lack of competitive—added to that. If you could just give an update on GBSD, the progress, and what you see, if any,

challenges there might be, and what risks we run if there is a delay.

Secretary ESPER. Thank you, Senator. Yes, we continue to move forward on GBSD. It's vitally important as the land-based leg of the triad, as you know. What concerns me most is the same thing that I discussed with Senator Fischer, is, we have no margin left with regard to the timeline. It's utterly important that we move out quickly. I share your concerns about lack of competition, so we're going to have to be very clever. Under Secretary Lord is working on a number of ways by which we keep the pressure on the contractor to stick to cost and stick to performance and timeline, to schedule associated with that, because there is no margin with regard to replacing that. We tend to have this recapitalization problem coming all together at around the same time.

But, that said, I'm also looking for ways to build margin in that leg of the triad. Are there different things we can do to extend it? And then, as you know, I have—personal concern after speaking to folks there is to make sure we maintain the health and vitality and readiness of the missile force, itself. A very important mission, and a very tough mission, when you have a chance to get down one of those silos and experience what they go through.

Senator CRAMER. It is that.

General Milley, with regard to this, I think the Secretary referred to the divest—to divest of some of the things of the past, to invest in things of the future. We hear a lot lately in this budget about the risk associated with getting from here to there, and the divestiture of some of those legacy systems. One of the things that comes up often, of course, is the ISR demands in the theater. I think pretty much every combatant commander I've talked to says we're woefully short, and yet, some of the legacy systems that are being targeted for retirement to make room for modernization include some very important ISR assets. I'd be interested in, your take on all that, if you're comfortable with, for example, Global Hawk, future MQ–9, whether the risk is worth it, or what the risk might even be.

General MILLEY. Well, it depends on what adversary or enemy you're talking about. So, many of the ISR systems that we have today that are in very high demand are very, very useful against terrorists, insurgents, against fixed sites, et cetera, and they have clear penetration capability when there's no significant air defense threat or there's no other types of threats. If you're talking about great-power competition, which is what this NDS talks about and what this budget is all about, that's a different type of ISR. So, we're trying to divest ourselves of the ISR that is not particularly useful against a Russia or China, or even high dense air defense systems of an Iran or a North Korea, and invest in those ISR systems that do have penetration capability. That's why you see some of the "divest in order to invest." Now, there's no need—it makes no sense to me to continue to buy stuff that isn't in alignment with the NDS. So, it's a "depends" question on what your enemy is.

With respect to the quantity or capacity relative to the COCOMs [combat commands[, you'll never find a combatant commander who has enough ISR. It's just not going to happen. We are—we have been, every single year, year in and year out for 20 years, always

been short of ISR. We continue to build it. You're never going to buy your way out of the problem, because it has to do with information and having to do with knowledge and decision-making. So, we will always be chronically short of ISR. But, the key, though, for the "divest to invest" is, it depends on who you're going against. We need to invest in the capabilities that are worthwhile against a China or a Russia.

Senator CRAMER. Thank you, both of you. Thank you.

Thank you, Madam Chair.

Senator FISCHER. Senator Manchin.

Senator MANCHIN. Thank you, Madam Chairman.

Thank both of you all for your service. I appreciate very much your being here today.

Secretary Esper, I support the wall, and I have always supported the wall. But, I really have a problem with the funding, which I think you all know our position on. It should be appropriated by us. That's our job. The reprogramming of the $3.8 billion of appropriated funds to support the border wall—and the reason it troubles me is that it's—$1.3 billion of that is taken out of the National Guard and the Reserve equipment. The National Guard is—every one of us have an affinity with our National Guards.

So, how do we justify the disproportionate cuts to the Guard despite knowing the vital and ever-growing role in aspects of national security? And I know about Homeland security. But, the Guard's our front-line defense in Homeland security.

Secretary ESPER. Yes, sir. I—thank you, I appreciate that, and I think, with regard to your first remark, we would agree, our preference would be that this be funded through DHS.

Senator MANCHIN. Right.

Secretary ESPER. But, that said, we are where we are, and DOD will support DHS in this regard. As I was saying to Senator Jones, when we try to find a clear line, objective line by which to draw the sources, we came up with the one with regard "either to need" or "excess to need." And, as things popped out, it became obvious that the impact would be on the National Guard. It's no pleasure for me——

Senator MANCHIN. Yeah.

Secretary ESPER.—to have to make that——

Senator MANCHIN. I know.

Secretary ESPER.—decision, as a former guardsman myself, but it—we tried to not play——

Senator MANCHIN. Well, also, Secretary, you have said that your Night Court Program has been very successful at freeing up money. Could nothing be freed up there, on the Night Court?

Secretary ESPER. Well, we—I spent 22 sessions over 4 months, and we found $5.7 billion out of $99 to free up. I—we're going to—we've started again this year. So, I did find $5.7 to put into our NDS priorities, Senator.

Senator MANCHIN. Well, let me—another thing I would just say, since the TAGs and the Governors are so intertwined——

Secretary ESPER. Right.

Senator MANCHIN.—have they had any forewarning of this whatsoever?

Secretary ESPER. No, sir. The only forewarnings that went out were the consultations I had with the Service Secretaries and that the Chairman had with General Lengyel and the Service Chiefs.

Senator MANCHIN. I'll—another question is, I've just been briefed on the Afghan fighting that's going on, attacks from today—I think the 4th. I just got briefed on that. Maybe you could bring me up to where we are in Afghanistan with the Taliban right now. Also, the peace agreement, do you think it might hold? Because it hasn't helped very long, and what direction and what do I tell West Virginians and people that have been upset about the problems in releasing 5,000 enemy fighters? That did not go over well in the State of West Virginia.

Secretary ESPER. Sir, I'm not sure I can do it justice in 2 minutes and 12 seconds, but I'll say this much. It's my view—and I—I'll let the Chairman—I'll save time for the Chairman——

Senator MANCHIN. Sure.

Secretary ESPER.—to speak. But, my view is, the best, if not only, path forward is through a political agreement. We have an historic opportunity here. We signed, on Saturday in Qatar—I was in Kabul at the same time—this agreement that lays out a framework by which we could proceed toward an eventual intra-Afghan negotiation. It was supposed to happen, at this point, 5 days from now, and the results, so far, have been mixed.

Senator MANCHIN. What kind of signals will we get today? I'm pleased to see at least we've supported defending the Afghan fighters. We didn't just leave them.

Secretary ESPER. Which is what—what has allowed us, under the document, under the agreement, to defend them. It's the commitment I made to the Afghans when I was there on Saturday.

Senator MANCHIN. Right.

Secretary ESPER. We will continue to defend the Afghans, support them. The Taliban, to their—are honoring their piece, but—in terms of not attacking United States and coalition forces, but not in terms of sustaining a reduction of violence. Our Special Envoy is over there now. He's going to be pulling the parties back together. The critical thing, in the next 5 days—few days, will be getting the conditions set for them to sit down with regard to negotiations.

Senator MANCHIN. Will we see any retreat whatsoever once we hit the Taliban today? From their aggressiveness against the Afghan fighters?

Secretary ESPER. You know, the Chairman and I spoke to General Miller earlier on this.

Do you want to comment?

General MILLEY. Yes, Senator. Bottom line is, there was a variety of attacks over the last 24 to 48 hours. They're all beaten back. They're at small little outposts. We did use United States air in support of our Afghan allies.

What is important, though, for the agreement—we're on day 4. This was small, lower-level attacks out on checkpoints, et cetera. But, the Taliban have signed up to a whole series of conditions, of which—I believe the Committee and all the Members of the Congress have all the documents associated with this agreement. You can go through all of it, and, of significance, there's no attacks in

34 provincial capitals, there's no attacks in Kabul, there's no high-profile attacks, there's no suicide bombers, there's no vehicle-borne suicide, no attack against United States Forces, no attack against coalition. There's a whole laundry list of these things that aren't happening. Yes, there were significant numbers of attacks, small attacks. They were all beaten back, and we will continue to support——

Senator MANCHIN. Well, we've seen that they've been able—we've seen that they've been able to control their field fighters, right?

General MILLEY. We saw that over the 7 days, where they were able to——

Senator MANCHIN. So, but——

General MILLEY.—go from a high of about 125 attacks a day down to about 15 a day. They issued out instructions not to attack. That's correct.

Senator MANCHIN. So, we don't know what the cause is.

Secretary ESPER. Well, keeping that group of people on board is a challenge. They've got their range of hardliners and softliners, and so they're wrestling with that, too, I think.

Senator MANCHIN. Please keep us informed. I appreciate it.

Secretary ESPER. Yes, sir.

Senator FISCHER. Senator Perdue.

Senator PERDUE. Thank you, Chairman.

Thank you both for being here.

General Milley, I want to address—and both of you, actually, on this thing—you mentioned ISR just now, and I agree 100 percent. One of those—perfect examples. I want to lead into my question about asset allocation. As JSTAR [Joint Surveillance and Target Attack Radar] is going to ABMS [Advanced Battle Management System], and then the JDC2 [Joint All-Domain Command and Control] development, this is a lot of moving parts, very rapidly, and I'm shocked at, really, the progress we've made in the last year. I know we're not in a classified environment; I'm not going to go there. I want to know—first, Secretary, if you don't mind—the allocation of resources, after we take about 14 or 15 percent for overhead in the DOD, the—what's remaining after that, we allocate almost a third, a third, a third. Is that consistent with the NDS refocus on the maritime that General Mattis talked about, back in 2016—or 2017, relative to standing up to our major competitor, China?

Secretary ESPER. Yes, sir. It's—first of all, it's not cleanly a third and a third and a third. There is a traditional background. Normally, Navy——

Senator PERDUE. It's very close.

Secretary ESPER.—Navy has the highest, Army usually has the lowest, Air Force in between, and there's a lot of different things——

Senator PERDUE. Well, actually—I'm sorry to correct, but I—the 2021 budget, Army and Navy are almost equal.

Secretary ESPER. Oh, I—no, sir, they're quite different——

Senator PERDUE. Okay. Well, let's—we'll take that offline——

Secretary ESPER. Okay.

Senator PERDUE.—but, I'd like to see that, because the numbers I have are a little bit different.

Secretary ESPER. The Navy's at 207——

Senator PERDUE. Correct.

Secretary ESPER.—billion, and the Army at 177.

Senator PERDUE. Okay. Go ahead. I'll——

Secretary ESPER. So, anyways, I—that said, it—that is where it is. What—as the Chairman and I have talked about this, we've talked about with the chain of command, what we need to do, I think, is, first of all, have—update our war plans—they haven't been updated—and have OP PLANS that are relevant in the post-NDS environment, number one.

Number two—and the Chairman's working on this—we need a new joint warfighting concept that takes into account all domains of warfare. The Joint Staff is working on that right now. I think, once we have updated war plans that—and we have a new warfighting concept, and we have a good sense of what future systems will look like, I do think we need to look at that reallocation. But, to kind of scramble it up right now, I think would be premature.

Senator PERDUE. That's a great characterization. I accept that. I have all the respect in the world for you two, and I'm not questioning your authority at all. I know this is a moving target right now.

The shipbuilding plan, though, was due with the budget. I know it's on your desk, and I know that—I think I understand all the reasons why. It's a tough decision. You've got the *Columbia*-class requirement sitting right there as the number-one priority. I wouldn't argue with that at all. That's going to be about 25 percent—in some years, as much as 30-plus percent—of the total shipbuilding budget.

But, I want to highlight some numbers that are just shocking today. I mean, today China has about 345—I think these numbers are correct—345 service ships, ours to 295. Over the next 15 years, their plan right now, based on what we are seeing publicly, is, they're taking it to 435, and we have a 355 plan, comes from 16. Is the 355 consistent with the NDS? And, secondarily, is that being looked at seriously in the shipbuilding—the 30-year shipbuilding plan that we're going to see when it comes out of your office?

Secretary ESPER. Well, on the plan, I think the Navy's going to brief me sometime in the next few days on what their proposal is with regard to the plan.

With regard to the number, I'll echo what the CNO [Chief of Naval Operations] says. The—the CNO says he—355 is the number, but we need to look at effects and capabilities. But, if you want to stick to the number, I actually—my gut feeling is, we need more than 355, not just to deliver effects, but we need presence.

Senator PERDUE. But, is that a function of lethality, as well, given we're not hamstrung by INF anymore, and with ranges and new capabilities that we're also——

Secretary ESPER. I think, as I've laid out in my plan, my thinking—because we're going to do—we're going to run some internal wargames to look at our range of options. The Navy has some ideas. Cost Assessment and Program Evaluation (CAPE) has some ideas. Some think tanks have done some good work. I think some core principles we've worked around is, we have to have more

ships, but smaller. We need to have, I believe, more attack submarines. We need to move more quickly into unmanned, and, in all cases, we need to have distributed sensors and shooters, we need to have the ability to be survivable in this environment, and there are a number of other things. But, again, I was just meeting with the CNO and the Acting Secretary yesterday on this. We agree that you—lethality is critical at range, but, for the Navy, it's also presence. You have to have enough surface combatants available at any one time to have a presence, to show + assurance, deterrence, et cetera, which is why my instinct is that we need more than 355.

Senator PERDUE. Well, we have many more combatant commanding areas at other than the Indo-Pacific that we are responsible for today.

Secretary ESPER. Yes, sir. Many responsibilities, whether it's counterdrug——

Senator PERDUE. Yes, sir.

Secretary ESPER.—or maintaining freedom of the seas, and all that. We have the world's greatest Navy, and we need to keep it that way.

Senator PERDUE. General Milley, going to one other thing. We're talking about finding every billion dollars, right? And you've railed about this, and I have, too, so has the Secretary. You've got 23 seconds. Go after CRs [continiuing resolutions]. Tell us exactly what continuing—12 of the last 13 years, we have hamstrung the military with a continuing resolution for at least the first quarter of the fiscal year. We're in the 6th month of our fiscal year, we haven't even started this process yet. So, we're facing down another CR this year. It'll be the 13th in 14 years, and so, we are estimating, now—your service directors—surface commanders have told us, roughly, in aggregate, it's about $5 billion per quarter.

General MILLEY. Per quarter.

Senator PERDUE. Per quarter.

Secretary ESPER. Lost buying power.

Senator PERDUE. So, General Milley, tell us how it really affects our readiness and our recapitalization efforts. That's—over 10—that's $50 billion. I mean, that takes care of a lot of these long-term shipbuilding issues that we're talking about.

General MILLEY. Well, I'm already over time, and I haven't even started, but——

Senator PERDUE. No, you go, sir.

General MILLEY.—I would just tell you that it's a very ineffective, inefficient way of managing the taxpayers' money, because industry can't rely on a steady cashflow and stream and predictability in industry. Then we, in terms of programming and acquisition, et cetera, our program managers can't rely on steady building, as well. So, it's a very inefficient way. We're budgeting, basically, 9 out of 12 months, or 6 out of 12 months of a year, and that's just no way to run a railroad station, sir. It's just not a good way to do it.

Senator PERDUE. Well, thank you.

General MILLEY. CRs are not good.

Secretary ESPER. I do.

Senator PERDUE. Yes, sir.

Secretary ESPER. Just a quick follow-up. I—one thing the—that the DOD is going to come with you soon, Senator, is a legislative provision. Other departments of the Federal Government have it. It would seek legislative authority to transfer any expired Navy funds, which otherwise would go back to Treasury, back into the SCN account. Our conservative estimate is, this would free up another billion dollars a year that we can go back and—put back into shipbuilding. Otherwise, it goes back into the Treasury, and it would be money that you've already appropriated and authorized to us for this purpose.

Senator PERDUE. I want to indulge the Chairman for one last comment on this.

We're working with OMB, too, and I think there are opportunities in there. We're going to give some freedom, and our appropriators to give you some freedom, within the current rules, that they've never envisioned before, because they never realized how expensive this is, to give you some latitude that, when you are in a CR, you're not as hamstrung as you are today. But, I agree with General Milley, this is an absolute travesty.

Secretary ESPER. Particularly important for the shipyards.

Senator PERDUE. Thank you.

Senator FISCHER. Senator Kaine.

Senator KAINE. Thank you, Madam Chair.

Thank you, to our two witnesses, to the Chairman and the Secretary. I appreciate each of your service.

Testimony today has been about this budget being directed toward the National Defense Strategy. General Milley said, about something, "Why would I purchase something not aligned with the National Defense Strategy?" And we've also heard, "in an era of tight budgets." So, where in the National Defense Strategy is there a phrase "a border wall on America's southern border"?

Secretary ESPER. Senator, there's—Homeland security is in the National Defense Strategy. It's——

Senator KAINE. It is, but is there a mention of a border wall on the southern border?

Secretary ESPER. I don't believe so, but nor is there——

Senator KAINE. You're right.

Secretary ESPER.—mention of dealing with floods and putting out wildfires and——

Senator KAINE. Right. I just read the NDS, and you're talking about—this is a budget that is focused on the NDS. The National Defense Strategy has a 14-page synopsis. The border wall on the southern border is not mentioned. The southern border of the United States is not mentioned. There's one mention of a border in the 14-page public synopsis, and it is this: "Russia has violated the borders of other nations."

So, when you come and tell me that this is focused on the NDS, I've got a real problem with that, and I know that that's maybe above decisions or other people's decisions, but $6 billion came out of the Pentagon's budget last year, 3½ for MILCON and 2½ coming to—from the—into the counterdrug fund and then into the border wall.

You have done a reprogramming, I believe, of $3.9—There have been earlier questions about that—$3.8 into this counterdrug fund.

There's also been a report in the Washington Post that there's another shoe to drop, and about $3.7 billion is likely to be taken out of MILCON. Is that accurate? Should we expect to see that?

Secretary ESPER. That is not an accurate number, but it is a possibility that that could happen. Yes, Senator.

Senator KAINE. So, the number may not be accurate, but it is—is it likely that we're going to see another tranche taken out of MILCON?

Secretary ESPER. We could. I don't want to put an estimate on it, at this point in time.

Senator KAINE. So, I mean, it's just—I can't imagine a scenario in which this Committee—I'll just say it bluntly—would allow a Democratic President to take money out of the Defense budgets used for nondefense priority. I cannot imagine it. I appreciate, Secretary Esper, that you, in response to Senator Manchin, said the preferred way would be to have a tough appropriations battle, appropriate money for the border wall, and then spend the money appropriated for the DOD within DOD accounts. I think that makes perfect sense. But, you know, it's just—it's hard for you to look us in the eye and say, "This is very focused on the NDS," when I can't find mention of the border wall or the border in the NDS, and when earlier witnesses have testified, though this be an emergency, it's not a military emergency.

Let me dig into another issue. When you do the—just using the $3.8 figure—you do that transfer within the DOD into the counterdrug fund, and then use that for the wall. Is that transfer subject to the transfer authority that we give you, where there's a general transfer authority in the Appropriations Act, where you can transfer up to $4 billion a year within DOD accounts, with notice to Congress, but without approval. Is that $3.8 transfer within that $4 billion transfer authority?

Secretary ESPER. I think so, Senator, but I'd want to come back with you to affirm it.

Senator KAINE. I'd love that.

[The information referred to follows:]

Secretary ESPER. The $2.2 billion of the transfer was within the $4 billion in general transfer authority provided in section 8005 of the Department of Defense Appropriations Act, 2020.

The $1.6 billion was within the $2 billion special transfer authority provided in section 9002 of the Department of Defense Appropriations Act, 2020.

Senator KAINE. But, my belief that it is, too. So, you have $4 billion of transfer authority. We're a few months into the fiscal year. It's often the case that transfer authorities are most needed at the end of the fiscal year. You've used $3.8 billion of the transfer authority by the beginning of March, when we have a whole lot of months left in the fiscal year. So, for example, how much in the President's Budget for DOD is coronavirus response if we need to maintain people in place on South Korean bases and on bases in Italy, bases in Germany, bases in other places around the world, our troops and our families? It's probably not in the President's Budget. But, that would be the kind of thing for which we give you transfer authority. But, you've now almost bumped up against the limit of your transfer authority out of that $4 billion to build

money at the wall, and we still have, you know, 8 months left in the fiscal year. Isn't that right?

Secretary ESPER. Your assessment is correct, Senator.

Senator KAINE. Would it make your job easier if we eliminated your transfer authority and said, any transfer authority, you had to come to us for permission? The $4 billion, you can do it without our permission. Over $4 billion, you have to get our permission. If we had said you can't do any transfers without Congress's position, would that actually help you? Because it would enable us to say you've got to get it through appropriations. If you want something for a wall, if you want to fight climate change, if you want to fight gun violence, you've got to get it through appropriations. Because if you had to come back to us to ask for authority to do that $4 billion transfer, then we could actually keep the money in the budget that is directed toward the National Defense Strategy.

Secretary ESPER. Senator, as—there's no head of any organization that wants his or her hands tied by narrowing the options. You always want to expand your options in your maneuver space. So, no, not necessarily.

Senator KAINE. But, in an odd way, aren't your hands kind of tied in this way? I mean, if money can be taken out of your budget to use for DHS or to battle climate change or gun violence, if it can be taken out of your hands, that's sort of a tying of your hands, in terms of putting together a budget that promotes the National Defense Strategy, isn't it?

Secretary ESPER. Senator, I recognize what you're saying. Like I said, the President has declared a national emergency. We've been tasked to support DHS, and it's—if it's legally available, we intend to support DHS.

Senator KAINE. I appreciate your answers.

Thanks, Madam Chair.

Senator FISCHER. Senator McSally.

Senator MCSALLY. Thank you, Madam Chair.

Good to see you again, Secretary Esper and General Milley.

I want to talk about the killing of terrorist leader Qasem Soleimani. It's been about 2 months. I agreed with that important decision to take out that terrorist leader who has a lot of American blood on his hands. Despite the ridiculous politicizing that we saw at the time, people almost cheering that we were about to go to war with Iran. Unfortunately, it should have been a unifying issue. It's now been 2 months. Can you share at all what you've seen? I believe that that was a body blow. We heard, from you and others, that it was a body blow, the impact that that's having on Iran's terrorist activities, their threats in the region, their proxy forces, and the threat to us and Israel?

Secretary ESPER. I think, Senator, that—as you well know, the—he, Soleimani, was a terrorist leader of a terrorist organization who killed many, many Americans, wounded thousands more, killed his own people, killed people throughout the region, a very capable adversary. But, I think it's clear that taking him off the battlefield has set back the Islamic Revolutionary Guard Corps (IRGC) and the Iranian Government with regard to spreading their malign activity throughout the region. I think, by the same action, we have

restored deterrence, to a degree. For all those things, I still believe it was the right call made by the Commander in Chief.

Senator MCSALLY. As do I. Thanks.

General Milley, you got anything to add to that?

General MILLEY. I would add that—absolutely think it was the right goal, and I second the idea that we reestablished deterrence. I think that's really critical. We can talk about that in a classified forum, exactly what makes me believe that. But, I do believe that's been reestablished.

Senator MCSALLY. Thanks.

Staying on Iran, the reports of coronavirus there—again, another talitarian opaque country. I don't believe anything they're reporting or the way they're going to handle it. But, there's been reports that 23 members of Parliament, 10 percent of their Parliament, a senior advisor to the Supreme Leader, Vice President, Deputy Health Minister, all contracted the virus. Are you seeing anything related to the impact, especially with Iraq, with our forces in the region, or how that may further put pressure on the regime, both internally from their own people as they are failing to deal with this?

Secretary ESPER. I think that, Senator, becomes a factor. Obviously, as we see this unfold, authoritarian countries having a problem with transparency and being forthright with their folks. Quite honestly, though, my attention has been focused on the three priorities I've been outlining internally to my commanders. One is protection of our force, our servicemembers and their families. Number two, safeguarding our mission capability, and number three, supporting the interagency.

Senator MCSALLY. Great. Thank you.

I want to totally change topics here on military sexual assault. So, last year I worked with your predecessors, and I championed reforms that made it into the NDAA specifically focused on improving the process from a report forward, the investigative process and the support, going forward, after a report has been made. When I went to Yuma, in Arizona, I had heard they had no special victims counsel there full-time, that oftentimes victims were waiting a significant amount of time before they get to meet with a special victims counsel (SVC), which they often wanted before their first, you know, meeting with investigators. So, I put in the bill that they needed to have an SVC available within 72 hours, every single victim. We now have a full-time one at Yuma, for example, but we're seeing this all over the country now. Victims are able to get their special victims counsel quicker, and have a more immediate response. We're also hearing other reports of just increases to NCIS [Naval Criminal Investigative Service] and how that's having a positive impact.

So, just a question. Given the successes, we still need to prioritize implementation of those provisions. Can you report back to me on anything else you're seeing in the field and the implementation?

Secretary ESPER. Yes, ma'am. First of all, your efforts and assistance in establishing the Sexual Assault Accountability Investigative Task Force are directly helping servicemembers. We have a lot of good information data so far, both factually and anecdotally. The Department has approved all 22 recommendations in the four crit-

ical focus areas. They are all now policy, which I'm pleased to report, and we're in the process of implementation across the board. The task force continues to meet the track implementation. So, a lot of this is moving on. It's critical to reducing timelines for cases and ensuring the best evidence for consideration. I'd love to come back or send a team up to update you. But, it's all, it seems to me, moving in the right direction, generally, and it's having an impact.

Senator MCSALLY. Great. Thanks.

The next thing we want to now focus on, obviously, is prevention, stopping these crimes——

Secretary ESPER. Right.

Senator MCSALLY.—from happening in the first place, and we've talked extensively about this. I don't know, General Milley, if you want to pipe in and—you know, in your long experience in the military, how we get to the front end in preventing these crimes from happening, in the age groups where it's happening. We know exactly what we need to get after, but what we've been doing for training and prevention is just not working.

General MILLEY. I—again, I want to thank you for your personal leadership. But, the key here is the chain of command, and commanders and noncommissioned officers, starting at the senior levels, but also going all the way down to team sergeants and team leaders and first-line supervisors. Everyone is, as the Sergeant Major of the Army used to say, "not in my squad" sort of thing, or "not in my squadron," or "not in my battalion." This takes ownership, and you have to embrace it completely, and it's a function of good order and discipline of the force for which commanders, and commanders alone, are personally responsible and should be held accountable, for the good order and discipline of their force. Regardless of whether it's sexual assault or drugs or crimes of violence or whatever the—whatever it is, the key here to success is commanders.

Senator MCSALLY. Thanks.

I'm over my time. I look forward to continuing to working with you on this issue.

Thanks.

Senator FISCHER. Senator Blumenthal.

Senator BLUMENTHAL. Thanks, Madam Chair.

Thank you both for your service and for being here today.

I sent a letter last month, along with Senator Murphy, to express my frustration that the Navy budget included funding for only one *Virginia*-class submarine, and reports that you signed off on a decision to shift $1.6 billion in funding from *Virginia*-class submarine construction to the National Nuclear Security Administration. I'm not here to ask any questions about it, because I hope that you continue to believe, as you expressed when you pivoted—Groton—the last time you were there, Mr. Secretary, that the undersea warfare superiority of the United States cannot and should not be compromised, that we need to meet the goals for submarine production, and that, hopefully, two *Virginia*-class submarines for fiscal year 2021 will be accomplished. But, I'm concerned, also, about the delay in delivering the Force Structure Assessment and 30-Year Shipbuilding Plan that apparently is still on your desk or somewhere in the Pentagon for approval. I expect that both will be de-

livered to Congress and the Navy as soon as possible, both in a classified and unclassified version. I hope that's true. Would you confirm that it is?

Secretary ESPER. Senator, I've been briefed, about a week ago, on the INFSA, the Integrated Naval Force Structure Assessment. I have yet to be briefed on the 30-Year Shipbuilding Plan. Of course, they cover different timelines, different horizons.

But, what I want to do is step back and look at, not just one view, in terms of the future fleet, but I want to take in a range of views. So, I regret that it's late. I don't have a good reason why. But, what I want to do is give you a full, good assessment of what I think the future is, and I'll give you a quick note on this.

I am a big believer in attack subs. I believe it's an advantage we have, a distinct advantage we need to grow, both in terms of capability and capacity. I was very impressed by the trip I had up to Groton. But, the numbers I see right in that—in at least the INFSA right now for attack subs, I think the number needs to be higher. So, what I want to do is take a broad look at this, in light of an approved OP PLAN, in light of other ideas out there, and make sure that, before I sign off on it, albeit late—while it may be late, I want to make sure I get it right, or at least I'm comfortable with it, because I do think we need a bigger fleet, and I think we need to put more emphasis on attack submarines.

Senator BLUMENTHAL. Well, you couldn't find a more enthusiastic and passionate supporter of a bigger submarine fleet, and I hope we have an opportunity to discuss it——

Secretary ESPER. The Chairman's with me, too, on that.

Senator BLUMENTHAL.—before our markup in May on this Committee.

I want to shift slightly to a point that's been raised by at least one of my colleagues, Senator Hirono, the coronavirus impact on not only our servicemen and women and their families, grave and important as it is, but also on, for example, F–35 production. Right today, the supply line in Japan was completely shut down. That's just one example of our defense industrial base that could be gravely impaired by coronavirus. I'd like, from you and the Chairman, an assessment of what the impact is likely to be, what you're doing about it, and what your plans are to be more specific.

By the way, I was disappointed by a report that I saw—I'm not vouching, necessarily, for its accuracy—that you indicated that American military commanders were warned overseas, "not to surprise President Trump on the coronavirus". So, maybe you can respond.

Secretary ESPER. Yes, sir. First of all, that—I was disappointed by that story, as well. It's completely wrong. It's bad reporting, at its worst. I've been very clear with my commanders, both privately and publicly—I said this at a press conference Monday—our three priorities, in this order, are: protection of our servicemembers and their families; number two, safeguarding our missions, which could include production; and then, number three, support the interagency. The commanders have all the authorities they need, and I'm providing them resources, to make decisions. They've made any number of decisions. I don't think I've had to make one. My one request of them—and the Chairman will vouch for this—is, "If

you're going to make a very big decision, a high-profile decision, give me a heads-up, because I want to make sure that we're integrated across the interagency, that HHS [Health and Human Services] knows, that State knows—indeed, the White House knows, and that Congress knows," because that's what I've got to do. I've got to make sure we're integrated across. So, that was a bad report, completely false.

Chairman, if you want to add anything on that——

General MILLEY. Senator, thanks. Two things. One is, I was in the VDC. All the Secretary said—it was to Abrams, General Abrams, over in Korea—all he said was, "Hey, look-it, if you're going to make the decision of imposing this emergency declaration that he has authority to do, please give me a heads-up so I can make sure everybody here in DC is informed." That's all it was. It wasn't any kind of thing where—trying to squelch people. So, that was a mischaracterization. I read the article, and I was in the thing, and I—it struck me as very odd.

But, more importantly is the impact on the military. On the uniform military, we have a demographic that's different than society at large—young, healthy, fit. To date, we've only got—unless there's some new ones today or something—but, the reporting I've got as of 24 hours ago is, we've got one uniform member that's come down with it over in Korea. A couple of family members. We're screening lots of people. So, in terms of the numbers relative to the whole, very small impact.

Secondly is on exercises. There are exercises, mostly in Indo-Pacific, that we're taking a hard look at. One of the CPXs [Command Post Exercises], for example, at the request of the ROK [Republic Of Korea] Chairman, was canceled over on the Peninsula of Korea. There are some other exercises that are being looked at to scale down or canceled or postponed. So, there might be some impact on exercises.

But, broadly speaking right now, the impact on the uniformed military is very, very minimal. Break. We are also preparing to help whatever the Nation needs, and we've got all kinds of plans, and we're able to support other agencies, as necessary and as required by the President and Congress.

Secretary ESPER. To include our medical research institutes, et cetera. We're all—all hands are in, in terms of supporting this effort to come up with the solutions.

Senator BLUMENTHAL. My time is expired. I want to thank you both. I want to suggest, respectfully, that telling the American people more about those plans, to use your word, would be reassuring. You know, the enemy here really——

Secretary ESPER. It's panic. It's lack of information.

General MILLEY. Lack of information, lack of panic, and——

Senator BLUMENTHAL. Exactly.

General MILLEY.—and these aren't classified plans and all that kind of stuff. This is stuff that we could easily——

Senator BLUMENTHAL. It's not like the enemy——

General MILLEY. No, that's right. We could easily let people know.

Secretary ESPER. Right. Completely agree.

Senator BLUMENTHAL. Thank you.

Senator FISCHER. Thank you, Senator Blumenthal.

Senator Sullivan is going to ask questions now.

Senator SULLIVAN [presiding]. Thank you, Madam Chair.

Gentlemen, I want to thank you for your exceptional service. I appreciated our meetings yesterday. I think both of you are doing an excellent job for our Nation.

General Milley, I wanted to just get a little bit more. You have stated publicly—you stated in our classified hearing on the Soleimani strike, which I think was not only constitutional, but in the Nation's interest—you mentioned about your duty, how you saw that strike after you read the intel. As we all know, General Soleimani wasn't in Iraq on vacation, he was there targeting the killing of more American servicemembers, which he has a long history of doing. Almost half the servicemembers in Iraq at the time were Alaskan-based forces, so this was something that particularly of interest to me.

Can you succinctly say what you've said otherwise—because I think it's very important to hear directly from you, someone with over 35 years of military experience, service to your country—about what you thought your duty was after reading the intel?

General MILLEY. Well, what I had said publicly, and I reiterated it in classified sessions, was—and reiterated in more detail—was, I believe the intelligence was compelling. I believe it was imminent. Not only was Soleimani have a long track record, going all the way back to the Beirut bombing and being involved in that, but, more importantly, his command-and-control role and what he was about to do. I believe that I, Secretary Esper, the President, and many, many others would have been culpably negligent had we not take the action we did, because I think many Americans would have died as a result. So, I believe it was the right thing to do then, and I believe it was the right thing to—I still believe that. I believe we contributed to reestablishing deterrence with aggressive action from Iran.

Senator SULLIVAN. So, I appreciate that. I think reestablishing deterrence anywhere, in any theater, is actually really hard to do, and you've been able to do it, so far, and I appreciate that.

Mr. Secretary, we had a good discussion yesterday on this issue of the DPRI [Defense Posture Realignment Initiative], and I'd like to get your views—you know, there was language in the NDAA from last year that, essentially, has the two of you focusing on the DPRI. The issue of, I think, the National Defense Strategy is warmly and strongly received here in the Senate, in a bipartisan way. But, if you look at our force posture, particularly in the Asia Pacific, it's stale. A lot of it exists, really, after World War II or the Korean War. How are you thinking about that, and how should we be thinking about that here in the Senate?

Secretary ESPER. Thank you, Senator. I do think we need to take a fresh look at our force posture in the Pacific. By the way, I think we need to take a fresh look at our force posture everywhere, which is why we're doing these COCOM reviews. So, I'll be working my way through these to look at just these things. We're—by the way, we're finding some things already that just don't make sense.

But, with regard to INDOPACOM, absolutely, we should think about what it means to—if we have to face off against China in the

year 2035 or 2049. DPRI is one example of something that was developed many, many years ago. I know it's a little bit tricky. There's a lot of diplomacy involved in this. But, I think that's something also we should take a look at to make sure that we are well postured, particularly our Marine capabilities, our Marine forces, to not just be able to respond flexibly, but also be able to train and sustain our forces in the region for an extended period in light of——

Senator SULLIVAN. So, can I dig into that a little bit with you? The issue of training, I think, is a really important one, whether it's on Guam, whether it's other places—Okinawa, for example. We don't get the opportunity to do a lot of training in those places, and, I think, to have sustainable deployments, but also keeping our forces sharp, we need good training areas. Would you agree with that?

Secretary ESPER. We absolutely—I mean, training is the—it's the lifeblood of a unit's effectiveness, his ability to train, maintain, and equipment their force.

Senator SULLIVAN. Well, we look forward to working with both of you on that continued important reassessment that you're doing.

The other issue that I know—I've been raising quite a long time—Mr. Secretary, you might remember, in your confirmation hearing, you mentioned that if the Air Force, in its upcoming OCONUS [outside the continental United States] decision on where to place the next squadrons of KC–46s, did it in an area that was co-located with over 100 fifth-generation fighters, that it would provide the United States with extreme strategic reach, and it would show that to our potential adversaries. The TRANSCOM Commander testified last week that one of the most stress-capable aspects and their number-one readiness concern was the air refueling fleet. My question to him, and to you, and the Secretary of the Air Force yesterday—having a deployment of KC–46s in the OCONUS bed-down in an area that can reach multiple COCOMs, like a place like Alaska, with the 100 fifth-gen fighters—from your perspective, what message does that additionally send to our adversaries? You've already talked about the issue of extreme strategic reach when I asked that question earlier.

Secretary ESPER. Well, I do think two critical needs for our forces right now are to have that strategic lift, refueling, and sealift, by the way. But, the location of Alaska gives you great reach, in terms of whether you go across the Pole into Russia or toward China. When you couple it up with an amalgamation of forces, it does put the enemy in a different posture, your adversaries in a different posture, because you now have that reach, that lethality at hand, and ready to do what it might need to do, if called upon.

Senator SULLIVAN. Great. Thank you very much.

General MILLEY. Senator, if I might.

Senator SULLIVAN. General, please.

General MILLEY. I also don't want any adversary to walk away thinking that the United States of America cannot project power because of stress on the tanker fleet. We can, and they should have no doubt about it. Yes, we're giving up 10 KC–10s, and 13 KC–135s, but we still have almost 500. We can get there, "the firstest with the mostest." And no one should doubt that.

Senator SULLIVAN. But, certainly one of the best ways to relieve the stress is to have——

General MILLEY. It is.

Senator SULLIVAN.—tankers in places that can reach several——

General MILLEY. It is.

Senator SULLIVAN.—COCOMs.

General MILLEY. But, we can get there.

Senator SULLIVAN. Thank you.

General MILLEY. I don't want anybody to think we can't.

Senator SULLIVAN. Thank you.

Senator King.

Senator KING. Thank you, Mr. Acting Chairman. I appreciate it.

Senator SULLIVAN. I know you're going to ask a question on the Arctic, so——

Senator KING. I am, as a matter of fact.

Senator SULLIVAN. Excellent.

Senator KING. You left it for me.

Secretary Esper, first, I want to thank you personally for the participation of the Department in the National Cyber Solarium Process. Over a year, we've worked very hard. Ken Rapuano and David Norquist made significant contributions in intellectual firepower and criticism and thoughtfulness. I just want to thank you for your authorization for that participation. It was very meaningful.

Secretary ESPER. Thank you, Senator. I'm very encouraged by that—by all that, too. It's—there's a lot good coming out of it.

Senator KING. Well, we'll be releasing our report next Wednesday, as a matter of fact, and——

Secretary ESPER. Oh, great.

Senator KING.—and I think it's a good piece of work, and, indeed, we've spent a whole session here and really haven't talked about cyber, which is a—an essential—that's not the right word—a very real domain of warfare today. That's what we'll be talking about extensively next week. So, I just wanted to thank you.

Secretary ESPER. Well, thanks, and we're in cyber competition, if not conflict, every single day.

Senator KING. Exactly. We're at war today.

Secretary ESPER. Yes, sir.

Senator KING. General Milley—I guess this is a question for both of you—I'm very concerned about a gap in defense against hypersonic weapons. Both of our principal adversaries, China and Russia, have developed these weapons, have actually deployed them, and this puts at risk our—particularly, our naval resources. Talk to me about what we're doing to counter that threat.

Secretary ESPER. Senator, as part of our hypersonics research, we are putting money into defensive systems. One of the early things that we know we need, that money is going directly into, is a low-Earth orbit (LEO) missile tracking system, if you will, that would be able to track hypersonic systems moving through the atmosphere or——

Senator KING. Because one of the problems with hypersonics is, they don't leave a radar signal. They move so fast, they create a plasma shield. So, we need the tracking.

Secretary ESPER. We've determined that you need a low-—a LEO tracking system to do that. So, that's one of the priorities of our R&E [Research and Engineering] efforts to do that, and then, of course, you have to figure out the effectors by which you would knock one out of the sky, if you will. There are a variety of things that we're exploring. But, it is critical to have that defense, because it is such—the maneuverability, the speed, the effectiveness of these systems is remarkable.

Senator KING. Another——

General MILLEY. Two things——

Senator KING. Yes, sir.

General MILLEY.—Senator King, on that. One, on the defense, if it can be seen, it can be hit, and there is no defense against hypersonic. It goes 5 to 10 times the speed of sound. You're not going to defend against it. So, what you have to do is be invisible. There's all kinds of techniques and procedures that we're working on in order to make our forces very difficult to see, from an acquisition standpoint, of enemy radar. So, that's on the defense.

On the other part, you're not going to shoot the arrow. Those things are going so fast, you're not going to get it.

Senator KING. Right.

General MILLEY. You've got to shoot the archer. You've got to go deep downtown, and you've got to get on the offense. If you want to defeat hypersonics, you've got to go to the source, the launch pads——

Senator KING. And you have—ISR in order to——

General MILLEY. That's right.

Senator KING.—know where——

General MILLEY. You've got to have the ISR to get in there. If you're launching hypersonics at the United States, then you're going to war with the United States, and you're going to pour it on, and pour it on with mass and firepower, and fast and hard.

Senator KING. But, I thought you made an important point earlier in the hearing, where you talked about ISR. We've sort of had a vacation on ISR.

Secretary ESPER. That's right.

Senator KING. Because we've been acting against enemies——

Secretary ESPER. That's right.

Senator KING.—that don't have any—that capacity. It's a whole different ball game when we're talking about a peer-state competitor.

Secretary ESPER. That's right.

General MILLEY. And you want to invest in ISR that can penetrate——

Secretary ESPER. Right.

General MILLEY.—the airspace of these great-power competitors.

Secretary ESPER. It's also why we talk—as I've laid out the shipbuilding principles, if you will, going forward, is to—and the Navy agrees with this—is a move away from very large platforms into smaller platforms, a more distributed force so that you complicate the enemy's plans, particularly with regard to the employment of hypersonics.

Senator KING. Well, you raised shipbuilding. We talk about the Indo-Pacific as being the most important region. We talk about the

National Defense Strategy, and yet, the budget talks about knocking out four destroyers and, I think, an amphib in the future plan. How was that decision made? How firm is it? Can we revisit it? I want to get a little bit of thoughts on that.

By the way——

Secretary ESPER. Yeah.

Senator KING.—one thought—the other thought is, you know, we're doing this recapitalization out of operating costs. In any other organization, you'd have a capital budget and a—and you're building 40-year—an asset—a *Columbia* submarine is a 40-year asset, and yet we're building them out of cashflow instead of some kind of long-range attributing to the cost over the life of the object. But, to get back—talk to me about——

Secretary ESPER. Yes, sir.

Senator KING.—the shipbuilding.

Secretary ESPER. Well, as I said earlier, I think we need—to me, I don't focus as much of the number, but that number, 355, is out there. I think we need to be—have a fleet larger than 355. My gut tells me that. I'm convinced of that.

Senator KING. Senator Purdue had a chart this morning at the Seapower Subcommittee that, if you saw it, the—it shows what China is doing—you'd feel vindicated.

Secretary ESPER. Yes, sir. But, we do have a qualitative capability over them. There are some other things out there. But, nonetheless, it's—if it's not just capability and lethality, it's presence. You have to have the presence, and so, I do think we need to get on that path. I think there are a number of things that we need to do.

First of all, I completely support what the CNO did. The CNO decided to reallocate $4 billion or so out of SCN and put it into O&M to get readiness up. We have a readiness challenge. It's been well documented.

Senator KING. The ship's no good if it's in the dock.

Secretary ESPER. Yes, sir. I think the Government Accountability Office (GAO) said, last year, in 2019, due to maintenance challenges, the equivalent of 19 ships didn't go to sea, and so, we've got to fix the readiness challenge and then put more money into shipbuilding. If we can get the legislative approval change, Secretary Modly is digging in deep. He's doing what the Army and Air Force did to find $40 billion over 5 years. That'll free up a good chunk of what they think they need, and then we've got to get this higher top-line moving in the right direction.

Senator KING. Well, but we also have to—I mean, what worries me about what you're talking about—and I'm sorry, I know I'm over time—but, I worry about—there's a—you can't turn the industrial base off and on with a switch. If we drive it down, and you have a loss of personnel, loss of welders, loss of skilled shipbuilders in Bath, Maine, or Pascagoula or Marinette, Wisconsin, you can't turn them back on.

Secretary ESPER. Completely agree, Senator. I—that's why I think we need to look more, particularly with large capital investments like ships, multiyear, and even—I think the Navy, we discussed yesterday, is, Can you multiyear O&M so that your—you don't have the same perturbations in your maintenance cycle?

Senator KING. Right.

Secretary ESPER. Because you can't afford to go—you know, take a ship out of maintenance and then have a month or 2-month gap, and I know they're struggling with this up in Groton right now, with the sub—with the maintenance up there. So, you've got to figure out a way to smooth that out so workers will be incentivized to stay in the trade.

Senator KING. Are you suggesting that consistent funding from Congress might be a benefit?

[Laughter.]

Senator KING. I'm shocked.

Secretary ESPER. Consistent and timely.

Senator KING. Thank you.

Thank you, gentlemen.

Senator SULLIVAN [presiding]. Senator Hawley.

Senator HAWLEY. Thank you, Mr. Chairman.

Secretary Esper, General, thank you for being here. Thank you for your service.

Mr. Secretary, let me start with you. In your confirmation testimony last summer, you wrote that we needed a distributed and resilient force posture in the Indo-Pacific. I'm concerned about the concentration of our forces currently in Japan and South Korea. Give me your assessment about our ability to compete effectively with China, given that concentration.

Secretary ESPER. Yes, sir. What we—those forces are there for—you know, for a variety of reasons. I think Senator Sullivan mentioned it. You know, we have a presence that largely reflects where we've been for many, many years, and so, I do think we need to step back and look at that. I know Admiral Davidson is looking at that to make sure we have more distribution. I'm trying to get out there. I've traveled to the INDOPACOM two or three times now to visit nontraditional partners. I've been from Mongolia to Vietnam, I'll be going to Indonesia. I think there's much more ground we can cover and to build more relationships with more countries.

Senator HAWLEY. You anticipate my next question, which is whether we can disperse U.S. Forces to other locations in the Pacific to improve survivability and reduce risk to operations. You think that we can?

Secretary ESPER. Improve survivability, but also grow more partners and more people, in terms of standing up and telling the Chinese they have to obey the international rules of order, and abide by that. That's going to take a lot of investment. So.

Senator HAWLEY. What investment do we need to be able to disperse our forces along those lines?

Secretary ESPER. Well, I think we need to think creatively, Senator, about—you know, as you think through the war plans, how we might fight in the future, is—where do we need to be? Does it require MILCON, does it require—I'm—the Chairman and I are big believers in IMET [International Military Education and Training]. So, get more countries from the Indo-Pacific, even nontraditional partners, into our schoolhouses, grow that relationship over a career. There are a number of things that we should do that, by the way, the DOD is doing. We're committed to a 50 percent growth in IMET over 5 years.

Senator HAWLEY. Just sticking with the question of investment. At your confirmation hearing, you said that you were open, in principle, to using something like EDI to accelerate investment in INDOPACOM. I don't see anything like that, however, in your budget. Why is that?

Secretary ESPER. The more I think about that—I mean, we've discussed this a lot, and sometimes I get concerned, if you bucket a certain amount of money for a certain region, it can be both limiting and—in other words, if you put so much money in there, people say, "That's it, and that's all you need," or you get trapped by that fund. I actually appreciate the flexibility of putting more or less in, depending on how circumstances change. But, clearly, I think—and we're talking to the commander out there about, "What are your investment plans, focusing them more, in terms of future presence, what do we need to do, where do we need to grow relationships?"

Senator HAWLEY. EDI has been so successful in that theater and for our needs there. I continue to believe that something like that mechanism——

Secretary ESPER. The one fact—the only thing I'd say, Senator, is, sometimes it takes the pressure off of countries to invest their own dollars into supporting us and providing host-nation support. Because they see that fund out there, and they go after that instead of going to their parliaments and saying, "How can we support the U.S. presence?"

Senator HAWLEY. I just want to make sure that we are getting the resources we need to what is our priority theater, I believe, under the NDS, in a timely fashion, if we're going to be postured successfully. I mean, we are behind the curve, I think.

Secretary ESPER. I'm impatient. I think we can and should do more. That's why I'm trying to do these COCOM reviews to free up time, money, and manpower, to invest more into that future fight.

Senator HAWLEY. I applaud your COCOM reviews, by the way, and let's talk for a second about AFRICOM. The AFRICOM Commander, General Townsend, recently testified that he thought our European allies could send more forces to West Africa and take over some of the missions currently being done by our forces, like airlift, for instance, and aerial refueling.

Secretary ESPER. Sure.

Senator HAWLEY. Do you agree with that assessment?

Secretary ESPER. Absolutely, and I've talked to the allies about this, and we've talked a few times about aerial refueling. We provide that to the French for free, if you will, and that's one of the areas where I've talked to the French to say, "Look, I'm having a problem with air refuelers right now. If somebody else can pick up that mission, that helps us all out a lot." That's part of the review, is looking at, How do we do the same mission, but maybe do it differently?

Senator HAWLEY. Yeah. Well, this seems to me like a clear situation where we can and should expect our allies to do more. Again, I applaud your COCOM reviews.

General Milley, let me switch topics. Let's talk about Iran. If Iran resumes provocations in coming months, what is your assessment of how many troops we can send to that theater without risk-

ing our situation in INDOPACOM, without undermining deterrence, if you like, in the Indo-Pacific?

General MILLEY. I don't think I could answer that in an open session. I'd rather come back to you in a classified session, point one.

Point two, just to be clear, though, there is a significant amount of force in Indo-Pacific—300,000 troops, 7 aircraft carriers, the—I mean, there's a lot of force in the Pacific, and in Central Command, you're looking at about 70,000 troops currently, right now. There's an adequate amount of force in Central Command to maintain deterrence. If deterrence breaks down, we'll analyze the situation, and we'll do whatever is required to achieve whatever national security objectives are necessary, relative to Iran. I'd rather get back to you in classified session on exactly what that would be.

Senator HAWLEY. You bet. I'll pursue that with you in a classified setting.

My last question on this, Mr. Chairman, is just to your comments about the relative balance between CENTCOM and PACOM. Is it your sense that there's a little bit of slack, then, General, in INDOPACOM? I mean, is that—am I——

General MILLEY. Well, I mean, again, it's a "depends" I mean, if you think that, you know, you're close to a war with Korea or China, then probably not, but—so, it depends on what the situation is in INDOPACOM at the moment in time. It—we will do whatever is required to achieve U.S. national security interests, no matter where it's at in the world, and if something were to happen, very significantly more than what's current in the Middle East, then decisions will be made by the President and Secretary of Defense to move the right amount of forces to achieve our objectives.

Senator HAWLEY. Thank you, General.

Thank you, Mr. Secretary.

Senator REED [presiding]. On behalf of the Chairman, let me recognize Senator Peters.

Senator PETERS. Thank you, Ranking Member Reed.

To our—both the gentlemen, thank you for testimony here today, and your service.

Secretary Esper, briefly, I'd like to discuss prescription drug prices under TRICARE. This is an issue that Senator Rounds and I have been working on, along with some of the other Members of the Committee here. This Committee previously authorized a pilot program that would lower the cost of prescription drugs for TRICARE beneficiaries, including servicemembers, their families, and our military retirees. I know that the Department has begun the process of preparing for this prescription drug parity pilot program, but it still has not begun. So, my question is, Can you commit to working to—with us on action to lower the cost of prescription drugs for our servicemembers under TRICARE, and particularly expanding their opportunities to purchase these drugs?

Secretary ESPER. Yes, sir. Without knowing—having too much detail, I'm always committed to improving quality and access.

Senator PETERS. Great.

Secretary Esper, last week, Senator Cotton and I sent a letter urging you to establish a United States-Israel Operations Technology Working Group. This group would coordinate and canalize

military research and development efforts between the United States and Israel, focusing on the shared threats that our countries face, and capitalizing on, clearly, the world's leading national security innovation base in both countries, both the United States and Israel. So, this is to both Secretary Esper and General Milley. What is your view on enhancing the security cooperation with Israel, particularly in the areas of technology research and development? How can we strengthen that between our two countries?

Secretary ESPER. Senator, without having seen your letter yet, I would tell you that, you know, we have a very good innovative base. They have a very good innovative base, and I think the more we can cooperate together as allies and partners to come up with common solutions, the better. We do a lot of work with them now on a number of things. Certainly, at the industrial level, they compete to against—against and with American companies. So, I think if there are ways to improve that, we should pursue it.

General MILLEY. And we—as you know, we work very closely with Israel on a lot of areas, and specifically in R&D and S&T. In combat developments, for example, we have the active protective system on our armored vehicles. That's an Israeli-produced system. We've looked at the Arrow for our ballistic missile defense system, and a wide variety of other systems. So, there's a—there's an exchange of ideas and knowledge, research, development between us and the Israelis on a regular basis.

Senator PETERS. Secretary Esper, on February 24th of this year, the DOD officially adopted a series of ethical principles for the military use of artificial intelligence. The principles were designed to complement existing ethical frameworks, and you structured the ethical framework around five specific areas for military use of AI: responsible, equitable, traceable, reliable, and governable. I've had longstanding concerns about the consequences of the United States and our allies adopting ethical standards without similar and equitable standards being adopted by our competitors and adversaries that operate under a different framework than we do. My question is, Is the U.S. placed at a competitive disadvantage at the tactical and operational level by adopting AI ethical standards not shared by our adversaries? And, if so, how do we compensate for that disadvantage?

Secretary ESPER. Yes, Senator. First of all, it's a lot of good work done by the Defense Industrial Board with a lot of outreach to a wide range of persons and organizations to develop these. I was briefed on them. I had a number of discussions with a lot of leaders about them. But, look, I think this is an area where we lead, and I think the principles, from what I've read and studied and learned, I think they put us in a leadership position. So, I think we are establishing the standard, if you will, and I think it will make us better. The more we can get other countries to come on board and align themselves to those, the better.

Senator PETERS. In the past, the U.S. has successfully used international agreements and arms control treaties to provide some stability, particularly with emerging technologies and in the attempt to minimize potential catastrophic mistakes that could occur. In terms of AR, are we at a stage where AI requires the equivalent

of an arms control treaty to ensure the current rules-based international order? And, if so, how would that look?

Secretary ESPER. It's a good question, Senator. I'd have to think about it and get back to you and consult with people, and I just don't know. It's not something I would take off the table, but it's a fair question. Again, I think we want to develop some common standards, if you will, and I—we try to set the bar by my signing out those AI ethical principles and to set a high bar from the beginning, and urge others to come on board.

[The information referred to follows:]

Secretary ESPER. No, we are not at a stage where Artificial Intelligence (AI) requires the equivalent of an arms control treaty to ensure maintenance of the current rules-based international order. It will likely be difficult to apply traditional arms control approaches to AI. AI is an enabling technology that is inherently "dual-use," useful for both military and civilian applications. Depending on how one defines "AI," it may very well become ubiquitous and manifest in multiple systems on every platform and vehicle, as well as in the devices carried by ordinary civilians and military personnel. AI does not involve objects such as missiles or warheads that can be readily counted, nor does it require analogs to the distinctive precursor chemicals or machinery that we monitor as part of our efforts to control the proliferation of nuclear and chemical weapons.

Although the Department of Defense (DoD) does not support negotiating an AI "arms control treaty," we believe that it would be productive to begin with discussions about international norms and standards of behavior. DoD is committed to leading in military ethics and AI safety. To that end, we are working to ensure that we adopt AI-enabled capabilities in a manner consistent with American values, U.S. domestic law, and U.S. obligations under international law. For example, working with the Defense Innovation Board, which consulted with experts and stakeholders across DoD, academia, and the private sector, DoD developed a set of AI ethical principles. Those principles, which are consistent with the AI principles developed and unanimously endorsed by the Organization for Economic Cooperation and Development (OECD), were adopted and promulgated as guidance for the Department of Defense in February 2020. Efforts such as these will allow DoD, along with like-minded allies and partners, to employ AI-enabled capabilities in a responsible manner that is consistent with our values and enhances compliance with the Law of War.

Senator PETERS. General Milley, any thoughts?

General MILLEY. I think artificial intelligence, as I've testified before, is sort of the mother of all technologies out there. It's extraordinarily powerful, and there's no doubt in my mind that it's going to be used for military purposes in the not-too-distant future. There's a wide variety of ethical concerns with that. I don't know if arms control agreements are the right mechanism or not. But, all countries, not just the United States, are going to have to come to grips with the introduction of artificial intelligence for use in military operations. It is extremely powerful, and it's going to have to be dealt with.

Senator PETERS. Great.

Thank you, gentlemen.

Senator REED. On behalf of the Chairman, let me recognize Senator Duckworth.

Senator DUCKWORTH. Thank you, Mr. Chairman.

I'd like to thank both of the witnesses for appearing before the Committee today.

I'd like to follow up on what my colleague, Mr. Hawley, touched on, which is the Indo-Pacific Strategy. I feel very strongly that this is a part of the world we need to spend more attention on. I have heard, from both of you, the emphasis on INDOPACOM and our

role—and the importance of our role there. While I applaud the Department's messaging about prioritizing great-power competition in this region over other activities, I do remain concerned that we've not matched our rhetoric with our actions. How are we able to divert some $7 billion to border wall construction and yet we're not—the Pacific region is our main effort? And, you know, Secretary Esper, I agree with you that IMET is certainly very important. In fact, I recently met with General Aparit Kongsompong, who is the Thai Army leader, and he talked very fondly about how his time that he spent at U.S. training facilities. In fact, he said it was his joint experience, training at United States facilities, as that of General Andika, from Indonesia, that led them to form a friendship based on their experience in the United States, that then led to this recent agreement they just signed, 2 months ago, on information-sharing.

But, I think it takes more than IMET. I think you need to put some MILCON in this. I think we need to look at staffing and resources increasing for the INDOPACOM in order to really deter Chinese aggression. So, I'd love to hear from both of you as to when we're going to see more of a plus-up in this region, beyond just talking about how great this is.

Secretary ESPER. Senator, I think the—first of all, you know I agree with the importance of INDOPACOM, and its—because it's number-one in our strategy, to say the least. But, if you look at the simple disposition of forces, INDOPACOM has five times as many forces as any other theater, over 350,000. The next-closest theater is 70,000. If you added up every other theater, INDOPACOM would still be twice as big as all of them, combined. So, we have a lot of forces in the theater. I think the challenge isn't necessarily putting more forces in, it's making sure that we look at our disposition on the ground and think, How do we use them more effectively to grow partners and allies, and how do we exercise with them, et cetera, et cetera? That's my quick assessment. I don't——

Senator DUCKWORTH. I mean, I don't disagree with you that it's not about—it's not just about the number of troops that are on the ground, it's about resourcing INDOPACOM so that they can go out—I think we need to be—you know, I mean, you're already talking about this—more basing agreements.

Secretary ESPER. Right.

Senator DUCKWORTH. I was very impressed with what was done in South Korea when we didn't have enough ammunition, and you guys, took that out of Hyde and plussed them up. But, the reason that you have more troops is because it's a larger geographic region than, say, CENTCOM is. You know, I'll—maybe AFRICOM would have more geographic area. But, the geography is different.

General, you were going to——

General MILLEY. Well, the—you're exactly right, the geography is completely different, the politics are different, the international politics, the threats are different, the allies are different. All of that is different, and you have to factor all of that in. But, in terms of main effort versus supporting efforts and economy-of-force efforts—in the NDS, the Central Command area, AFRICOM, and SOUTHCOM are all designated as economy of force, and you're familiar with that term from your military experience, and EUCOM

is a supporting effort, and PACOM is, "the main effort." It's all part of a globally integrated level of effort with all the resources the Department of Defense has.

With respect to INDOPACOM, you know, the Secretary mentioned 350,000 troops. He's also got, you know, 200 ships, 7 aircraft carriers. He's got three ARG/MEUs. He's got 1,600 high-performance aircraft. This is a highly resourced—from a military standpoint, highly resourced theater. So, it's not so much the numbers of the ships, planes, trains, and automobiles sort of thing. It's how we use it, where we put it, and what our broader strategy is with respect to what we think is going to be the most significant adversary for the next 100 years, which is China, and the rise of China, how we, as a nation, deal with that. Military is one aspect of a much broader strategy that we've got to come to grips with.

But, I do think that INDOPACOM is well resourced, from a departmental standpoint, in terms of military capability, right now.

Senator DUCKWORTH. But, the Chinese are really moving ahead of us——

General MILLEY. They are.

Senator DUCKWORTH.—when it comes to basing issues there, and——

General MILLEY. They are.

Senator DUCKWORTH.—we have to have more than a little toehold there in order to——

General MILLEY. Sure.

Senator DUCKWORTH.—ensure freedom of navigation——

General MILLEY. That's right, and access, basing, over-flight, all of that stuff plays into it.

Senator DUCKWORTH. So, adjacent to this issue, I want to shift slightly to the other—if there was a bet on what I—questions I was going to ask you, I'm sure this was one of the ones that would have come up, which is logistics. I'm deeply concerned about our ability to transport and sustain our forces overseas, especially in places like INDOPACOM. Contested logistics is something I believe we need to pay far more attention to. This year's cuts to the tanker fleet and anemic investment in sealift replacement and maintenance really worry me.

Secretary Esper and General Milley, can you tell me how this year's Defense budget request preserves or improves our ability to transport and sustain our forces in a——

Secretary ESPER. Yeah.

Senator DUCKWORTH.—contested environment? The days that we're going not be able to send ships full of what we need without our enemy trying to attack, take the ship out, are behind us.

Secretary ESPER. Senator, you're exactly right. I don't know if you were here earlier, but I mentioned this. You know, I'm concerned that—two important things that often get overlooked because they're not sexy are things like airlift and aerial refueling and strategic sealift. You know, we've invested in two surge ships this year, but if you—I've had a lot of conversations with General Lyons—we need to do more, and we need to do more, soon. That's why we've talked a few times about the shipbuilding plan, but one of the things the shipbuilding plan doesn't incorporate is strategic lift, sealift. So, I sent a letter to the committees, and I said, when

I look at the shipbuilding plan, I think we should factor in strategic sealift, because it also competes for budget dollars, and I—it's a critical factor. So, between that—I'm very concerned about the delays in the KC–46. I had the chance to crawl through one about a week—2 weeks ago, and look at the problems. We—so we're going to have to look restoring some—maybe some 10s, some 135s, so we keep that—at least 479 aircraft going. But, it's a very capable airplane, it's just going to take some time. But, the—those are critical things, particularly when you see the distances from CONUS or Alaska all the way into theater, into INDOPACOM theater, and then forward basing is another way you offset that, of course.

Senator DUCKWORTH. Yes. You're right, because it's not just about the sealift, it's—the tanker fleet, as you were mentioning——

Secretary ESPER. Right.

Senator DUCKWORTH.—but it's also fueling.

Secretary ESPER. Yes, ma'am.

Senator DUCKWORTH. We've got to have forward fueling capability. We can't just be shipping our fuel there for everything that sucks gas. Right?

Secretary ESPER. That's right.

General MILLEY. And you're right. You're over—we're over time, so I can get you an answer for the record, but——

Senator DUCKWORTH. Thank you, General.

General MILLEY.—you're absolutely right to be concerned about the maritime sealift. We've given that up, as a nation, for the most part, over the last many, many years, and the tanker fleet and the airlift fleet.

On the tankers, though, I just want to be clear again, you know, we've got almost 500 tankers, so, in this budget, there's 10 KC–10s and 13 KC–135s. Yes, there's stress on the force. No question about it. You've heard from General Lyons and others. But, at the same time, I don't want people who are watching this, especially in certain countries, to think that the United States of America cannot project power overseas, when needed. We can, and we will, if required.

[The information referred to follows:]

General MILLEY. In an effort to better define future warfighting requirements, the Secretary of Defense has directed the development of a Joint Warfighting Concept against peer adversaries in the 2030 timeframe. A subset of this requirement is the development of a corresponding Joint Concept for Contested Logistics. Strategic Sealift requirements for projecting the Joint Force in contested, all-domain environments from the Homeland, through the approaches, and to the tactical edge are fundamental to the success of any future large-scale military operation. The outcomes of the Joint Warfighting Concept and Joint Concept for Contested Logistics in December 2020 will help to inform future Strategic Sealift force composition requirements and long-range shipbuilding plans for the Navy and the Secretary of Defense.

In fiscal year 2021, TRANSCOM will invest $26.3 million of RDT&E funding towards Joint Deployment and Distribution challenges in a contested environment. These challenges include improvements to transportation and sustainment of our forces through cyber assurance, global posture, transportation capacity and fleet readiness. They plan to invest $30 million in fiscal year 2022. Additionally, the USTRANSCOM joint exercise program receives dedicated funding through the Combatant Commanders' Exercise Engagement and Training Transformation (CE2T2) program. For fiscal year 220, USTRANSCOM is allocated $31.3 million for six joint exercises.

The Joint Exercise Transportation Program (JETP) is a sub-program of CE2T2 that funds the strategic transportation of personnel and equipment to worldwide combatant command sponsored joint exercises. This program provides an oppor-

tunity to stress strategic transportation and C4I systems and evaluate their readiness and supportability across the full range of military operations. USTRANSCOM Service Components execute the majority of JETP funding to deploy and re-deploy units participating in CE2T2-funded joint exercises. In fiscal year 2020 the JETP budget is $207.3 million.

Senator DUCKWORTH. Thank you.

Senator REED. Gentlemen, let me thank you for your testimony, and thank you, particularly, for your service.

On behalf of the Chairman, Chairman Inhofe, let me call the adjournment of the hearing.

Thank you, gentlemen.

[Whereupon, at 4:40 p.m., the Committee adjourned.]

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JAMES INHOFE

FUNDING LEVELS

1. Senator INHOFE. Secretary Esper and General Milley, the National Defense Strategy (NDS) Commission and senior Pentagon leadership have all endorsed 3 to 5 percent real annual growth to implement the strategy. Every year since the NDS was published in 2018, leadership has said the next budget will implement the NDS. Now we hear it won't be until fiscal year 2022. Has the U.S. military fully recovered from lack of funding that existed under the Budget Control Act, particularly from 2013 to 2017?

Secretary ESPER. The Department lost $400 billion in buying power from fiscal year 2013 through fiscal year 2017. While the Congress has enacted funds for the Department at levels that reverse the loss in topline, the Department has not fully recovered from the lost buying power under the Budget Control Act.

General MILLEY. The last four defense budgets have done much to address the shortfalls resulting from the lost buying power under the Budget Control Act, but readiness and modernization challenges remain. The Department requires sustained, predictable, adequate, and timely budget enactment to fully recover from the Budget Control Act and effectively compete in an era of great power competition.

2. Senator INHOFE. Secretary Esper and General Milley, how much money in dollars above inflation do you need over the next 5 years to implement the NDS with low risk?

Secretary ESPER. Three percent real annual growth over the Defense fiscal year 2021 topline established by the Bipartisan Budget Act of 2019 requires an additional $232 billion over the next 5 years. Five percent real annual growth would require an additional $395 billion over the next 5 years.

General MILLEY. Three percent real annual growth over the Defense fiscal year 2021 topline established by the Bipartisan Budget Act of 2019 requires an additional $232 billion over the next 5 years. Five percent real annual growth would require an additional $395 billion over the next 5 years.

ELECTROMAGNETIC SPECTRUM: BALANCING MILITARY AND COMMERCIAL USE

3. Senator INHOFE. Secretary Esper, spectrum is critical to the execution of all DOD missions from radios to radars—including defense of the Homeland. In your February 26, 2020, testimony to the House Armed Services Committee (HASC), you commented on mid-band spectrum (3 to 4.2 gigahertz): "Private sector wants that. We need that . . . " and "We're willing to share it." Why does the military need to share bandwidth with U.S. 5G companies rather than just moving out of those bands altogether?

Secretary ESPER. The Department of Defense (DOD) conducts operational missions, warfighting exercises, training, and testing in the 3.1–3.55 gigahertz (GHz) spectrum range using a variety of land, air, and sea weapons systems, and command and control platforms. These capabilities do not tune to other parts of the spectrum to accommodate vacating the 3.1–3.55 GHz band. Being that industry wants this band fast and DOD fully supports U.S. leadership in 5G and the economic potential, we are willing to share the band. To accelerate the availability of this mid-band spectrum for 5G, spectrum sharing is the only viable option. Modifying all the necessary DOD equipment to vacate a band is an undertaking that is

enormously complex, costly and time-intensive. DOD systems are optimized for the original frequency band they were developed to operate in and are fully integrated into the vehicle, ship, or aircraft. DOD originally selected the 3.1–3.55 GHz band for the operation of certain mission-critical capabilities such as radars for many reasons to include threats, the technical characteristics of this spectrum, regulatory considerations and more. Today, there are a limited number of bands with similar physical characteristics for relocation and many of are either already intensely used or have been identified for study for reallocation. This further underscores that sharing is the most feasible option.

4. Senator INHOFE. Secretary Esper, do we have the technology to share?

Secretary ESPER. The Department of Defense (DOD) has the technology today, in varying stages of development, to enable us to share all or portions of the mid-band spectrum range. DOD, in partnership with stakeholders across industry and government, is already expanding the technological boundaries of sharing, including in the mid-band 5G spectrum of 3.55–3.65 gigahertz (GHz). This is an important air search radar spectrum band for the operational Navy. Since 2012, DOD, industry, the Federal Communications Commission and the National Telecommunications and Information Administration have worked on a sharing solution based on advanced technology that allows commercial services to share 3.55–3.65 GHz without modifications to Navy capabilities.

DOD also is assessing, as part of 5G experimentation with industry partners, the potential for dynamic spectrum sharing to enable co-existence between radar systems and commercial 5G technology in mid-band spectrum. This is part of an overall approach the Department has embraced to lean forward with smart technology and informed policy that protects our mission capabilities while allowing for sharing with 5G. The shift to a sharing and maneuver focus will align with efforts across DOD to achieve U.S. military readiness, integration across warfighting domains, and increased lethality of U.S. forces. DOD is ready to work through the machine learning and artificial intelligence analysis required to achieve effective machine-to-machine communications for near-real time sharing. These tools will improve 5G and enable military operations and 5G and beyond systems to cohabitate in congested spectrum. Overall, information technology modernization will better deconflict operations and enable more sharing in more bands, including those valuable for 5G.

UNITED STATES AFRICA COMMAND (AFRICOM) TROOP LEVELS

5. Senator INHOFE. Secretary Esper and General Milley, do you agree that Africa is key terrain to implement the NDS given the intersection of Russian and Chinese influence as well as al Qaeda and ISIS threats?

Secretary ESPER. First, I want to clarify that National Defense Strategy (NDS) implementation is a Department of Defense-wide effort to improve lethality, expand and establish partnerships, and empower reforms. These efforts drive our engagements and force posture across the world, so yes, it will include parts of Africa as it is an emerging frontier for global power competition and an area plagued by transnational threats.

Second, consistent with the NDS, the Department will emphasize relationships as key to achieving these goals. This means the Department will primarily work by, with, and through local partners and allies to combat transnational threats and minimize malign influence of non-African powers. The NDS reinforces partner-centric strategies and approaches to strengthen our partners' defense capabilities. The Department will continue to use a variety of tools to work closely with African and other international partners to achieve several policy goals including capacity-building programs, security assistance, military equipment sales, education, and exercises.

General MILLEY. Africa is home to some of the fastest growing economies and populations in the world and sits at the crossroads of international commerce and trade. Africa is also a key nexus for many of the strategic challenges identified in the National Defense Strategy.

Malign actors' coercive and exploitative activities undermine and threaten many African countries' stability. If left unimpeded, Russia and China threaten to erode United States influence and access in Africa over time.

Al Qaeda and ISIS linked violent extremist networks are expanding in Africa at a rapid pace, due in large part to weak governance and disenfranchised populations. Most VEOs in Africa seek to strike at the United States in the region, and some aspire to strike the U.S. Homeland.

The Department of Defense will remain engaged in Africa because America's future security, prosperity, and strategic access in times of crisis relies upon free, open, and secure sea and air lines of communication around Africa.

Our efforts in Africa to address priority security challenges and compete with Russia and China will also require continued investments across the whole-of-government.

6. Senator INHOFE. Secretary Esper and General Milley, as the threats grow in Africa, should we be looking at troop increases instead of troop cuts?

Secretary ESPER. The Department is evaluating United States Africa Command's force posture through the combatant command review process. The review process will ensure United States Africa Command is appropriately sized to enable United States war plans and contingency plans, compete with China and Russia through a whole-of-government approach, and degrade violent extremist organizations that have the capability and intent to target the Homeland. United States Africa Command is conducting a troop-to-task analysis to determine whether an increase or decrease is needed to meet the above objectives. These reviews are ongoing.

General MILLEY. The United States Government's commitment to Africa is demonstrated across the spectrum of national power—including diplomatic, military and economic efforts.

Persistent United States military presence is not the only measure of the Department of Defense's commitment in Africa, but we will continue to do our part.

DOD's continued commitment in Africa is demonstrated through its counter-terrorism training and operations, military training exercises, dynamic force employment, intelligence sharing, crisis response, and emergency humanitarian assistance.

While the results of the United States Africa Command review are not yet final, I am confident that the command will remain adequately resourced to accomplish its priority missions.

7. Senator INHOFE. Secretary Esper and General Milley, what are you doing to ensure that AFRICOM has the resources it needs to accomplish its mission and implement the NDS?

Secretary ESPER. The Department is evaluating United States Africa Command's force posture through the combatant command review process. The review process will ensure United States Africa Command is appropriately sized to enable United States war plans and contingency plans, compete with China and Russia through a whole-of-government approach, and degrade violent extremist organizations that have the capability and intent to target the Homeland. United States Africa Command is conducting a troop-to-task analysis to determine whether an increase or decrease is needed to meet the above objectives. These reviews are ongoing.

General MILLEY. The Department of Defense is reviewing activities and resources across all combatant commands to ensure alignment with the National Defense Strategy. United States Africa Command has been the first to undergo this review.

The purpose of these reviews is to rebalance and right-size to ensure DOD is aligned to most effectively meet the priorities of the National Defense Strategy, such as great power competition and countering violent extremist organizations that threaten the Homeland.

While the results of the United States Africa Command review are not yet final, I am confident that the command will remain adequately resourced to accomplish its priority missions.

PENTAGON BUDGETING REFORM

8. Senator INHOFE. Secretary Esper, the Pentagon still uses systems designed decades ago to manage its processes—namely, the Planning, Programming, Budgeting and Execution (PPBE) system for developing its budget. Do you believe the current Pentagon budgeting system is flexible enough to implement the NDS?

Secretary ESPER. The Department of Defense is reviewing activities and resources across all combatant commands to ensure alignment with the National Defense Strategy. United States Africa Command has been the first to undergo this review.

The purpose of these reviews is to rebalance and right-size to ensure DOD is aligned to most effectively meet the priorities of the National Defense Strategy, such as great power competition and countering violent extremist organizations that threaten the Homeland.

While the results of the United States Africa Command review are not yet final, I am confident that the command will remain adequately resourced to accomplish its priority missions.

9. Senator INHOFE. Secretary Esper, is it time to consider both fundamental and incremental changes to the PPBE process?

Secretary ESPER. The Department is constantly improving the way it conducts its PPBE process. This year, I have tasked my Chief Management Officer to conduct a consolidated program and budget review of the Defense Agencies. This review will provide a comprehensive review of the Fourth Estate and its contributions to the National Defense Strategy (NDS). All savings from this process will be invested to further the full implementation of the NDS for the Department.

CHINA AND POSTURE IN THE INDO-PACIFIC

10. Senator INHOFE. Secretary Esper, General Wolters recently told this Committee that the European Deterrence Initiative (EDI) fixed a lot of our posture problems in Europe. Do you agree we need that same focus now on posture in the Indo-Pacific?

Secretary ESPER. European Deterrence Initiative (EDI) funding has enabled the Department to increase our force presence in Europe, improve critical capabilities, establish pre-positioned equipment sets, and execute readiness-building exercises. All of these efforts have contributed greatly to United States European Command's warfighting capabilities and correcting posture problems in Europe. The United States must now focus on posture in the Indo-Pacific region and continue our efforts to broaden our posture across the Indo-Pacific region. Adapting our current posture that is concentrated in Northeast Asia to a more distributed laydown is an important element of our objective of denying adversaries sustained air and sea dominance in the region.

11. Senator INHOFE. General Milley, is the posture we have today in the Indo-Pacific the posture we'll need in the future to deal with a China that is more and more aggressive?

General MILLEY. In accordance with the NDS, DOD is focused on adapting to a battlefield where US operations will be challenged in all domains—air, sea, land, space, and cyberspace—with increasing speed and reach. If left unaddressed, these trends would erode our military advantage and challenge our ability to deter aggression.

To counter these trends, DOD is emphasizing investments in capabilities and posture to be able to deploy, survive, operate, and maneuver while under attack. These include: survivable and resilient communications and intelligence, surveillance, and reconnaissance systems; survivable long-range strike platforms and munitions; cost-effective missile defenses capable of defeating sophisticated air, cruise, ballistic, and hypersonic threats; and smaller, more dispersed, geographically diverse and resilient bases that incorporate active and passive defenses, promote interoperability and cooperation with allies and partners and enhance logistics flexibility and resilience.

12. Senator INHOFE. Secretary Esper, you mentioned in your testimony that funding like EDI can reduce the willingness of allies to meet burden sharing commitments. Isn't it true that EDI investments totaling over $20 billion have coincided with significant increases in defense spending across the North Atlantic Treaty Organization (NATO) alliance, including over $100 billion in new defense spending since 2016?

Secretary ESPER. European Deterrence Initiative (EDI) improves the readiness, responsiveness, lethality, and resiliency of United States forces in Europe in order to strengthen our deterrence posture and enhance our defense capabilities. It is indicative of the ironclad U.S. commitment to the North Atlantic Treaty Organization (NATO), but I continue to make clear to Allies that EDI, in and of itself, will not maintain the world's strongest military alliance. NATO Allies have responded to the call for increased burden sharing with sustained increases in defense spending. Defense spending across European Allies and Canada increased in real terms in 2019 by 4.6 percent, the fifth consecutive year of growth. By the end of 2020, European Allies will have invested $130 billion more since 2016, and the accumulated increase by the end of 2024 will be $400 billion.

13. Senator INHOFE. Secretary Esper and General Milley, in your testimony, you both referred to the number of forces assigned to United States Indo-Pacific Command (INDOPACOM)—300,000 in 1 instance and 350,000 in another. How many forces are assigned to INDOPACOM?

Secretary ESPER. There are 300,780 military personnel assigned to U.S. Indo-Pacific Command.

General MILLEY. There are 300,780 military.

14. Senator INHOFE. Secretary Esper and General Milley, how many civilian personnel are assigned to INDOPACOM?
Secretary ESPER. There are 53,972 government civilians & contractors assigned to U.S. Indo-Pacific Command.
General MILLEY. There are 53,972 GS & contractor.

15. Senator INHOFE. Secretary Esper and General Milley, please detail the number of forces currently assigned to INDOPACOM by location (i.e. in foreign countries, U.S. states, and U.S. territories).
Secretary ESPER. U.S. Indo-Pacific Command forces are spread across 44 Foreign Countries, all 50 States and Washington, DC and 4 U.S. Territories.
General MILLEY. Forces are spread across 44 Foreign Countries, all 50 States and Washington DC and 4 U.S. Territories.

16. Senator INHOFE. Secretary Esper and General Milley, how many forces assigned to INDOPACOM are stationed west of the International Date Line and how many forces assigned to INDOPACOM are stationed east of the International Date Line?
Secretary ESPER. There are 110,458 U.S. Indo-Pacific Command personnel west of the International Dateline. There are 244,294 personnel east of the International Dateline.
General MILLEY. West: 110,458. East: 244,294

17. Senator INHOFE. Secretary Esper and General Milley, in each of the last three annual DEPORDs/GFMAPs (including the current), how many forces assigned to INDOPACOM were allocated to other combatant commands (COCOMs)?
Secretary ESPER. [Deleted.]
General MILLEY. [Deleted.]

18. Senator INHOFE. Secretary Esper, please consider the example of denying a fait accompli in a Taiwan scenario. Given the tyranny of distance you referenced in your testimony, would you agree that the responsiveness of forces assigned to INDOPACOM in such a scenario would vary significantly based in part on their location in the INDOPACOM area of responsibility (AOR)?
Secretary ESPER. The location of U.S. forces within the U.S. Indo-Pacific Command (USINDOPACOM) area of responsibility (AOR) is a critical element of any response to a regional crisis or contingency. Our regional force posture has shifted our approach to warfighting to a posture that is geographically distributed, operationally resilient, and politically sustainable. In particular, the Department's Global Operating Model is designed to orient activities against the adversary's theory of victory—particularly a fait accompli scenario. The mix of activities in the contact and blunt layers is designed to focus the Department's military operations, especially in concert with allies and partners, to prevent adversary activities that may seek to achieve a fait accompli. Our effective operation in the contact and blunt layers of the Global Operating Model, as implemented in the USINDOPACOM AOR, is a combination of combat-credible forward forces deployed to the region (including in Guam, Korea, and Japan) and U.S. operations conducted at greater distance. Our responsiveness is also contingent upon the continued prioritization of investments in the logistics backbone of operations—including prepositioned forward stocks, munitions, strategic mobility assets, and maintenance.

19. Senator INHOFE. Secretary Esper, as one example, in the context of such scenario, would you consider ships stationed on the West Coast of the United States to be part of the contact, blunt, or surge layer of the Global Operating Model described in the NDS?
Secretary ESPER. Through the layers of the 2018 National Defense Strategy's (NDS) Global Operating Model, the Department seeks to identify the general attributes and key functions U.S. forces must be capable of performing to advance NDS objectives, and specifically the requirement to arrest the erosion of military advantage against our primary competitors in key theaters. For example, U.S. forces in the blunt layer must be combat credible and positioned to ensure they can help delay, degrade, or deny an armed attack by a U.S. competitor for limited objectives. In the scenario provided, the ship's capabilities and mission are the critical factors determining which layer of the Global Operating Model they support.

QUESTIONS SUBMITTED BY SENATOR MIKE ROUNDS

SPECTRUM SHARING

20. Senator ROUNDS. Secretary Esper and General Milley, in your HASC testimony on February 26, 2020, you said the Department is willing to share spectrum with 5G networks in the "Mid-Band" (3 to 4.2 gigahertz). Can you describe some of the ways that the Department relies on spectrum to support warfighter requirements?

Secretary ESPER. Spectrum is imperative to Department of Defense (DOD) operations. DOD must have the ability to gain and maintain an advantage in the electromagnetic spectrum when and where it is needed. To its meet national security and homeland defense missions, DOD relies on spectrum-dependent systems to provide command and control; voice and data communications; intelligence, surveillance, and reconnaissance (ISR); advanced threat detection and targeting systems; electronic attack and electronic protection; and battlefield situational awareness and protection (e.g., air traffic, weather, counter unmanned aerial systems or UAS). Without spectrum access, DOD is unable to train and equip its forces nor meet operational mission requirements. DOD has several types of important capabilities in the 3.1–3.55 GHz frequency range including major weapons systems. These include shipboard and ground based radars supporting multiple strategic and tactical ballistic missile defense missions, systems providing counter-mortar weapons and counter-air and UAS capabilities for homeland defense and critical site protection, and airborne command and control. The Department also relies on the use of airborne radars in this band to provide intelligence and protection of national security events.

General MILLEY. To meet national security and homeland defense missions, DOD relies on spectrum-dependent systems to provide command and control; voice and data communications; intelligence, surveillance, and reconnaissance (ISR); advanced threat detection and targeting systems; cyber; electronic attack and electronic protection; and battlefield situational awareness and protection (e.g., air traffic, weather, counter unmanned aerial systems or UAS). Without spectrum access, the Department is unable to train and equip its forces nor meet its operational mission requirements.

The White House, DOD, DOC and FCC have formed a task force to develop the details of a nationwide spectrum sharing solution by August 1, 2020. The collaborative agreement will enable sharing in the 3450–3550 MHz range, providing 100 MHz of nearly contiguous access across the Nation to enable America to lead the world in 5G development.

21. Senator ROUNDS. Secretary Esper and General Milley, what are some of the future spectrum warfighter requirements that will be essential to competing with Russia and China on a future battlefield?

Secretary ESPER. Military operations will see the integration of all domains (air, land, sea, space, and cyber) and the widespread use of all domain sensors, radars, and cloud-based systems leveraging advanced quantum computing, artificial intelligence, and machine learning for near real-time assessment and decision making. The military will significantly expand the number of autonomous air and ground systems that operate at extended distances for longer periods of time, providing persistent and high-quality situational awareness, tracking, guidance, and force. Winning in the future battlefield requires the ability to see and strike adversaries first while preventing adversaries from detecting the Department's presence.

This will be accomplished by interconnecting our geographically dispersed heterogeneous systems, which are often on-the-move, through the effective and efficient use of spectrum. Future spectrum requirements are shaped by overarching new capability requirements that include increased operational agility; expanded throughput via traditional line-of-sight radio frequency and data links that are on platforms; smart and adaptive global distribution networks; expanded space-based capabilities, and increased use of commercial off-the-shelf technologies. In addition, to keep pace with the rapid dispersion of technology and new concepts of warfare and competition, the Department is developing Dynamic Spectrum Utilization tools and methods to allow access to the spectrum regardless of adversary attempts to deny access.

General MILLEY. Military operations will see the integration of all domains (air, land, sea, space, and cyber) and the widespread use of sensors, radars, and cloud-based systems leveraging advanced quantum computing, artificial intelligence, and machine learning for near real-time assessment and decision making. The military will significantly expand the number of autonomous air and ground systems that

operate at extended distances for longer periods of time, providing persistent and high-quality situational awareness, tracking, guidance, and force employment. Winning in the future battlefield requires the ability to see and strike adversaries first, while preventing adversaries from detecting DOD's presence.

This will be accomplished by interconnecting our geographically dispersed heterogeneous systems, which are often on-the-move, through the effective and efficient use of spectrum. Future spectrum requirements are shaped by next-generation capabilities that include increased operational agility, expanded throughput via traditional line-of-sight RF and data links that are on platform. Additionally, they include smart and adaptive global distribution networks, expanded space-based capabilities, and increased use of commercial off-the-shelf technologies. Finally, to keep pace with the rapid dispersion of technology and new concepts of warfare and competition, we are developing Dynamic Spectrum Utilization tools and methods. These will allow DOD to maximize the use of available spectrum to exploit battlefield opportunities while preventing interference to other authorized users.

22. Senator ROUNDS. Secretary Esper and General Milley, what help is needed from Congress in this area?

Secretary ESPER. The Department of Defense (DOD) appreciates the Committee's continued support of our 5G plans, including our engagement as part of a "whole-of-government" approach to make the President's 5G goals a reality. A specific area in which Congress could assist is spectrum information technology (IT) modernization, as proposed in Fiscal Year 2020 National Defense Authorization Act (NDAA), section 214. This provision will modernize the Department's spectrum IT infrastructure, standardize modeling and simulation tools, standardize spectrum data, and allow interoperability between DOD, Federal users and national regulators (Federal Communications Commission and the National Telecommunications & Information Administration). This support will accelerate spectrum-repurposing decisions, resulting in an improved ability to deconflict operations and enable more sharing, including for 5G and beyond. This aligns with the greater reliance on sharing as part of a "whole-of-government" approach enables us to gain flexibility to be resilient against coercive,

General MILLEY. DOD appreciates SASC's continued support of our 5G plans, including our engagement as part of a "whole-of-government" approach to make the President's 5G goals a reality. The U.S. has great momentum and SASC's continued support of the National Spectrum IT Modernization initiative will enable interoperability between DOD, Federal users and national regulators (Federal Communications Commission and the National Telecommunications & Information Administration), accelerate spectrum-repurposing decisions, resulting in an improved ability to deconflict operations and enable more sharing, including for 5G and beyond. A specific area in which Congress could assist is to increase funding in DOD's RDT&E activities, specifically its recently established Next Generation Information Communications Technology Program (Early-stage R&D program). This program comprises a new initiative known as "5G to Next G." DOD's current efforts are focused on developing 5G-enabled military applications and spectrum sharing between national 5G and military systems. The new program would add a focus on technologies beyond 5G, working with agencies such as the National Science Foundation and National Institute of Standards and Technology on millimeter-wave technology, multi-antenna systems, dynamic spatial spectrum reuse, and "special/spectral/network security techniques." DOD's operations have become increasingly dependent on electromagnetic spectrum access across all domains. To improve national security readiness, effectiveness, and efficiency, Congress must encourage coordination across all federal agencies. We have lost our edge in this critical domain and need to quickly restore readiness in the electromagnetic spectrum to ensure we can execute the National Defense Strategy.

23. Senator ROUNDS. Secretary Esper and General Milley, if DOD was required to "vacate" or leave that band of the spectrum instead of sharing, what are the potential dollar costs to the military?

Secretary ESPER. The Department of Defense (DOD) cannot vacate the spectrum, because there is no comparable spectrum or technology to which military systems can transition that is as mission effective as this band. As a consequence, spectrum sharing is the only viable option at this time to accelerate the availability of this band for commercial 5G systems. As part of our proactive engagement in ensuring that mid-band spectrum is available to meet national 5G priorities for the U.S., DOD is studying the issue of dollar costs if comparable spectrum were available. That study is expected to be out later this year.

General MILLEY. Currently the DOD cannot vacate this band of spectrum due to weapons systems and our National Security in the near term. For instance, we have nearly 100 Aegis ships, each with an Aegis radar at the cost of $1 billion each. We also have a fleet of AWACs aircraft in this band of spectrum. These two platforms make up a significant portion of our National and Homeland defense. There are many other radar weaons systems that would be effected which is why our sharing strategy is so essential to our National Security and in the vital interest of our 5G efforts.

I, collaborating directly with the White House Chief of Staff, will co-chair a steering group to identify a solution that allows commercial industry nationwide 5G access while preserving critical DOD readiness and operations. The steering group is scheduled to present results to the President by August 1, 2020.

24. Senator ROUNDS. Secretary Esper and General Milley, how long would it take to move to a different area of the spectrum?

Secretary ESPER. Initial estimates for relocation timelines range from well over a decade to several decades, depending on the cost that would be acceptable and if comparable replacement spectrum were identified and made available, as required under current statutory safeguards.

General MILLEY. In the immediate future, the White House has identified access to 100 MHz of contiguous mid-band spectrum as essential to the U.S. efforts to lead the world in 5G development. There will be a two-phase sharing plan to expedite commercial access. The short term solution will be sharing spectrum via adjustments to Concept of Operations (CONOPS), Standard Operating Procedures (SOPs) and Tactics, Techniques, and Procedures (TTPs.) The long term solution will include identifying comparable spectrum, and making modifications to DOD equipment and/or operating concepts to improve the sharing environment. The final plan is scheduled to be delivered to the White House by August 1, 2020 with an aim to announce the associated spectrum auction no later than October 1, 2020.

CLOSE COMBAT LETHALITY TASK FORCE

25. Senator ROUNDS. Secretary Esper, one of Secretary Mattis' signature efforts was to create the Close Combat Lethality Task Force (CCLTF). The charter of this task force recognizes that, after WWII, close combat forces suffered 90 percent of all combat deaths, despite comprising only 4 percent of the total force. Senator Duckworth and I offered an amendment that was included in the Senate Report accompanying the fiscal year 2020 National Defense Authorization Act (NDAA), urging the department to continue its support of this task force and for its direct reporting relationship to the Secretary of Defense. Secretary Mattis called this task force his #2 priority, only behind the NDS. Will you give me your commitment to continue your direct oversight of this important task force, so that our ground combat forces, from all services, have a champion in its Secretary?

Secretary ESPER. The work of the Close Combat Lethality Task Force (CCLTF) is very important and having been an Infantryman myself the purpose of the task force is of vital importance to me. That is why I want to ensure this critical effort continues well into the future.

I am focused on implementing the National Defense Strategy and efforts like the CCLTF are a key part of ensuring our Nation's readiness now and in the future. That is why I have asked the Secretary of the Army to explore how this successful endeavor can be improved and institutionalized. Our Army provides the majority of the close combat forces and in order to prevent duplicate efforts across the Department, I decided the Department of the Army would be the lead in formalizing the critical mission of the task force.

DOD CYBER STRATEGY

26. Senator ROUNDS. Secretary Esper and General Milley, one of the five objectives in the 2018 DOD Cyber Strategy is to deter, pre-empt and defeat malicious cyber activity against U.S. critical infrastructure. The National Guard and Reserve Components are uniquely positioned to respond to cyber incidents of national significance, yet they continue to experience difficulty in cyber recruitment and retention. Can you describe your cyber talent management strategy; any innovative efforts that DOD is using to recruit and retain National Guard and Reserve cyber forces?

Secretary ESPER. Similar to the Active Component, recruiting and retaining National Guard (NG) and Reserve personnel with cyber skills is challenging given the competition with other sectors and private industry. The Military Departments are working to attract and retain the best cyber talent by utilizing bonuses, direct commissioning, constructive credit, continuing education programs, and assignment in-

centive pay. The NG provides servicemembers the opportunity to continue their industry and government careers and competes to retain personnel with cyber skills. Continued congressional support for Department of Defense recruiting programs such as direct commissioning, training and education, retention pay, bonuses, and other incentives is critically important to recruiting and retaining NG and Reserve personnel with cyber skills.

General MILLEY. There is a recognized nation-wide shortage of highly skilled cybersecurity professionals, and each of our DOD components, Regular and Reserve, are competing with external agencies and industry for the same small pool of talent. The Regular and Reserve components have been out in front addressing this issue and the National Guard is working to stay fully integrated with the solutions as we determine are successful methods of recruitment and retention.

I'd like to thank congress for providing enhanced recruiting and retention authorities to both the Regular and Reserve components, and note that officer direct appointment authority and constructive service credit enhancements have created more agile military personnel programs. The military pay and incentive system has agility built into it as well. Continued Congressional support for Reserve Component (Guard and Reserve) parity with Regular component authorities for recruiting and retention programs such as direct commissioning, tuition assistance and educational benefits, retention pay, critical skills bonuses, and Tricare, among others, is critically important. Our strategy is to leverage all traditional and non-traditional recruiting methods to attract talent and then retain that talent through use of incentives, both monetary and non-monetary.

While I believe we have the authorities we need to successfully recruit and retain cyber talent, we are closely watching market trends for talent in Artificial Intelligence and Machine Learning; there are early indicators that this may become an area where additional recruiting and retention authorities and/or special pay authorities are needed.

Examples:

With our Reserve component for example, in addition to traditional recruiting methods our reserve components have developed programs to leverage officers participating in Scholarship and Fellowship Programs. These programs include the Federal Executive Fellowship, SECDEF Executive Fellows, SECNAV tours, Industry Fellowships (e.g. Amazon, Apple, Microsoft, JP Morgan Chase), and universities (e.g. Harvard, MIT, CMU, Stanford). Our professionals build bridges with these officers to develop leads with promising candidates. We also seek both enlisted and officer candidates by liaising with regional colleges and universities offering information technology and cybersecurity certifications and degrees.

Following the Defense Digital Services model, more often today we have software developers recruiting software developers and engineers recruiting engineers. In fact, we have a USMC reservist in one of our cyber units who works at Google full time as an engineer. Reserve component (Guard and Reserve) members are uniquely positioned in their civilian occupations and industries to recruit similarly talented and skilled individuals through business cards and LinkedIn profiles.

Also, the National Guard Bureau consistent with their Cyber Strategy laid out in 2018, is establishing Cyber Workforce Forums (CWFs) to bring together representatives from the private sector, academia (including K–12), industry partners, and public organizations to create innovative solutions and improve management of the national cyber work force to meet both military and mission partner requirements. CWFs will be established at a variety of levels including state, regional and national levels and will necessitate states to facilitate interactions with partners. A robust and well integrated cyber workforce is a national asset vital for sustaining our economy by meeting both the Nation's defense and mission partner cyber security needs.

Not only is our reserve component a cost-effective model, but it's filled with tremendously talented individuals, the vast majority of whom serve for less pay than they receive in their civilian positions. Understanding why they do this is key to both recruiting and retention. The Covid-19 pandemic has brought forth additional challenges that have highlighted the innovation of our professionals and provided new examples of agility that will help move us forward.

For example, in April 2020, a Marine Corps Reserve cyber group in the 6th Communication Battalion, Force HQ Group, innovatively redesigned a full drill weekend to a virtual format in a secure Cloud environment, ensuring every element of training and mission tasks were completed. They culminated the training event with a Cyber Operator Competition scenario called Capture the Flag, which was a tremendous success. The feedback from reservists was very positive and has caused us to re-think some of the ways we're able to organize reserve training and drills in a more flexible manner that may also improve retention without expending any addi-

tional resources. We're taking a hard look at this and other examples, to find benchmark programs that continue to improve our ability to attract, recruit and retain talented professionals.

27. Senator ROUNDS. Secretary Esper and General Milley, the 2018 DOD Cyber Strategy refers to the integration of cyber and information operations as a line of effort. Some services have integrated their cyber forces into new information warfare commands. Can you describe the steps DOD has taken to integrate cyber, space, electromagnetic warfare, and information operations?

Secretary ESPER. The Department of Defense (DOD) recognizes the important developments on the global threat landscape, particularly involving China's and Russia's emphasis on domination in the information environment. DOD is undertaking several steps to address these threats effectively and to support the further integration of our military cyber, space, electromagnetic spectrum, and information operations. Among these efforts is a focus on designating a Principal Information Operations Advisor to oversee a cross-functional team, develop or update the DOD information operations strategy and conduct the first-ever information operations posture review, designate Information Operations Joint Providers and Information Operations Joint Force Trainers for the Department, develop and manage a joint lexicon for relevant information operations terms, and determine the relevant set of capabilities for these operations across domains. Other ongoing efforts include improving DOD organization, such as at the Military Department level; updating DOD doctrine, joint planning, and guidance, including by designating information as a joint function; identifying and addressing any gaps or seams in policies or authorities; and enhancing the Cyber Mission Force's ability to conduct integrated operations. DOD is continuing to assess the effectiveness of its current and planned efforts and to identify any additional steps that should be considered.

General MILLEY. DOD is undertaking several steps to support further integration of cyber, electromagnetic spectrum operations, and information operations. Across the Joint Force, we're analyzing the successes of the Services, such as the Navy, Air Force, and Army, who have aligned many commands and organizations to fuse cyber, space, electromagnetic warfare, and information operations most effectively to gain and maintain information advantage and to increase lethality. Specifically, the Army's Multi-Domain Task Forces, the Navy's 10th Fleet, and the Air Force's 16th Air Force are examples of larger optimization and integration efforts. You have also seen the Department form the U.S. Space Force, and the Space Force will optimize its forces and organizations to support the Department and the National Defense Strategy most effectively. We are continuously innovating and seeking to optimize the warfighting capabilities delivered to the combatant commands. Lastly, my staff is reviewing the Department's and the Joint Staff's organization to determine how to evolve in this era of Great Power Competition most effectively, and evaluating the fusion of information warfare internally, across the U.S. Government, and with our U.S. and international partners.

28. Senator ROUNDS. Secretary Esper and General Milley, does this entail or should this entail a single organization and command structure across the department?

Secretary ESPER. The Department of Defense (DOD) is open to making adjustments to its organization or resource allocations to enable the necessary integration of cyber, space, electromagnetic spectrum, and information operations; however, any such decision is premature pending the results of ongoing DOD assessments, including the forthcoming information operations strategy and posture review. Presently, effective operational integration to enable simultaneous effects from the strategic to the tactical levels is occurring through established procedures across combatant commands, leveraging authorities delegated to multiple combatant commanders in their assigned mission areas. Current OSD and Joint Staff organizations and processes also regularly provide valuable support to enable this integration.

General MILLEY. The Department recognizes the changing threat environment and is examining all options. We are driving toward operational integration from the strategic to the tactical level across combatant commands and leveraging authorities delegated to multiple combatant commanders in their assigned mission areas. Department of Defense and Joint Staff organizations are assessing ways to provide support to enable this integration further and simultaneously with the Department configuring a Principal Information Operations advisor and Cross Functional Team. Services are experimenting, innovating, and adapting the concepts to their own unique operating requirements. We expect our efforts with Joint All Domain Command and Control (JADC2) and the associated joint concept of Information Advantage to result in a comparative advantage in all-domain operations. We

will continue to engage with the combatant commands to identify gaps in information warfare capabilities and capacities and to collaborate with our allies and partners to accelerate delivery of effective and affordable solutions.

READINESS AND MODERNIZATION

29. Senator ROUNDS. Secretary Esper and General Milley, the personnel in the Armed Forces and the equipment utilized by those personnel have sustained a substantial strain from being at war for 20 years. Please speak at the unclassified level about your modernization and readiness strategy to maintain a lethal force in a contested and disruptive battlefield in alignment with the NDS and subsequently your agency's objectives.

Secretary ESPER. Since the release of our National Defense Strategy (NDS), the Department of Defense (DOD) has invested in new equipment, improved operational readiness, and modernized our nuclear deterrent forces. For example, DOD is modernizing all three legs of the nuclear triad, modernizing our space capabilities, investing in missile defense to protect the Homeland, procuring advanced aircraft, developing next generation precision guided munitions across the services and modernizing our electronic warfare systems. DOD also continues to invest in advanced technologies that will help maintain tactical advantage, such as artificial intelligence, directed energy, and hypersonic weapons. DOD's fiscal year 2021 budget focused on the development of these crucial emerging technologies to expand our warfighting advantages over strategic competitors and enhance our fighting capabilities in the increasingly complex battlefield of the future.

The Navy's strategy of sea control and implementation of distributed lethality as an operational and organizational principle for achieving and sustaining sea control at will is evident with their aggressive strategy of shipbuilding the next generation of submarines, aircraft carriers, and surface combatants. Specifically, the SSBN–826 *Columbia*-class submarine, the Navy's *Ohio*-class ballistic missile submarine replacement; the on-going construction of three CVN–78 *Gerald R. Ford*-class nuclear powered aircraft carriers; the DDG–1000-class of guided missile destroyers to provide offensive, distributed, and precision firepower at long ranges; the SSN–774 *Virginia*-class fast-attack submarine to be capable of targeting, controlling, and launching MK–48 torpedoes and Tomahawk land-attack missiles; the FFG(X) multi-mission guided missile frigate, to maximize the Navy's small surface combatant survivability and capabilities in surface warfare, submarine warfare, electromagnetic maneuver warfare, and air warfare mission areas; and the FREEDOM and INDEPENDENCE variants of the Littoral Combat Ship to defeat asymmetric "anti-access" threats such as mines, quiet diesel submarines and fast surface craft. Sea control is the precondition for the Navy's surface warfare, submarine warfare, and air warfare operational areas, while distributed lethality reinforces fleet initiatives that drive collaboration and integration across warfighting domains. The Navy's distributed lethality requires increasing the offensive and defensive capability of surface forces, and guides their deliberate resource investment for modernization and for the future force, thus providing more capabilities across surface forces and yielding more options for geographic combatant commanders in peace and war.

The Army's multi-domain operations uses calibrated force posture, multi-domain formations, and convergence as three key tenets to eliminate multiple layers of near peer stand-off in all domains—land, sea, air, space and cyberspace. Their strategy incorporates cross-domain fires as an evolution of combined arms maneuver, where the combination of complementary effects complicates an enemy's ability to act, producing an overall effect greater than the sum of the individual parts. Multi-domain formations deliver cross-domain fire capabilities through surface warfare aviation platforms such as future vertical lift, ground combat platforms such as Paladin Integrated Management, and integrated air and missile defense systems. Success against significantly large and lethal near-peer enemy forces, will not rely exclusively on a technological advantage, but also on the superior execution of concurrent single-domain mission threads with the ability to refocus and execute converging new multi-domain mission threads with speed and agility. Space and cyberspace domains provide layered offensive and defensive capabilities to increase stand-off and provide gray-zone/hybrid capabilities between unconventional warfare and conventional surface warfare.

The Joint Force has the necessary capability, capacity, and readiness to contend with today's threats at an acceptable level of operational risk, but our adversaries' demonstrated desire to contest U.S. military advantages will, if left unchecked, increase the risk to our national defense strategic objectives. In order to ensure the long-term readiness of the Joint Force, we must continue to modernize and expand our margin of dominance, while balancing the risks to mission success and a serv-

ice's force generation ability. The fiscal year 2021 request reflects an increase in readiness funding from $114.5 billion in fiscal year 2018 to $130.4 billion, an increase of 14 percent over four years. Focused investment in readiness allowed the Department to halt readiness declines across the Joint Force and initiate readiness recovery that has provided demonstrable improvements. The Department is consistently improving readiness reporting to identify leading indicators and systemic issues preventing accelerated readiness recovery, and improve the linkage between resources and readiness outcomes to ensure effective allocation of Department funding. We are strengthening our warfighting approach, improving how we develop, posture, and employ the Joint Force to implement the NDS most effectively, while prioritizing modernization, future high-end readiness, and the development of new operating concepts.

General MILLEY. The NDS provides the framework for the department's readiness and modernization strategy to deliver a ready, agile, and capable Joint Force that can compete, deter, and win across all domains today and in the future. President's Budget 2021 funds major readiness accounts to grow operational availability and recover from years of wartime operations and budget instability. We must be able to adapt quickly to the rapid evolution in advanced technologies to compete and win against potential adversaries. Our President's Budget 2021 request targets specific investments in readiness, modernization, leader development and support to our people and families to retain overmatch in an era of great power competition.

QUESTIONS SUBMITTED BY SENATOR THOM TILLIS

COVID–19

30. Senator TILLIS. Secretary Esper, I wrote a letter to you concerning Coronavirus. Can I get an update on how you're educating the Force about the risks associated with COVID–19, communicating DOD's emergency and preparedness plan, and how that plan is being executed?

Secretary ESPER. The Department has issued a series of documents that provide force health protection guidance. This guidance provides information to the force on coronavirus disease 2019 (COVID–19) risk, informs DOD Component plans, and communicates COVID–19 health protection measures and guides actions on medical treatment and laboratory diagnostic testing.

- Memorandum (dated January 30, 2020) addresses risk to personnel, individual prevention and protection measures, healthcare information, patient screening and isolation information, as well as information on diagnosis, treatment, and reportable medical events.
- Supplement 1 (dated February 7, 2020) directs identification, restriction of movement, and monitoring for servicemembers returning from mainland China.
- Supplement 2 (dated February 25, 2020) provides a risk-based framework to guide commanders on implementing health protection measures based on their local circumstances. This document allows a tailored response to the local needs to ensure the protection of our force and their families. These plans can include preventive hygiene measures, meeting and event cancellations, or access restrictions, among other actions.
- Supplement 3 (dated March 10, 2020) provided guidance for use of personal protective equipment and implementation of non-materiel solutions during the COVID–19 outbreak (rescinded and superseded by Supplement 7).
- Supplement 4 (dated March 11, 2020) directs and recommends actions for all DOD travelers in alignment with CDC Travel Health Notices.
- Supplement 5 (dated April 7, 2020) serves as a COVID–19 specific supplement to DOD policy on patient movement, the DOD Fire and Emergency Services Program, and public health and medical services as part of defense support of civil authorities providing best practices for the evaluation, treatment, and management of COVID–19 and associated patient movement guidance.
- Supplement 6 (dated April 7, 2020) provides laboratory diagnostic testing guidance to protect at-risk populations while maximizing critical testing capability and enabling optimal public health decision making.
- Supplement 7 (dated April 8, 2020) updates existing COVID–19 guidance for use of cloth face coverings in addition to personal protective equipment, and non-pharmaceutical interventions during the COVID–19 outbreak.
- Supplement 8 (dated April 13, 2020) provides guidance for protecting personnel in workplaces during the response to COVID–19 including restricting workplace access, collecting information necessary to protect the workplace and provides

a series of frequently asked questions and answers concerning Occupational Safety and Health issues.

HOUSING

31. Senator TILLIS. Secretary Esper, what is the plan to address the three remaining provisions still missing from the Resident Bill of Rights?

Secretary ESPER. The remaining three rights—Maintenance History, Dispute Resolution, and Rent Withholding—will require more work, to include additional coordination, resolution of legal concerns, and determining underlying processes, before implementation. The Department remains fully committed to continuing to work with the Military Housing Privatization Initiative (MHPI) companies to ensure the benefits of these rights are fully available to servicemembers and their families residing in MHPI housing. However, implementing these three rights does not lend themselves to unilateral action by the Department. Agreement needs to be reached with the MHPI companies and their third party lenders to operationalize these rights, including making necessary changes to existing MHPI project legal documents. We are engaging with these parties now to obtain agreement on processes to implement the three rights.

32. Senator TILLIS. Secretary Esper, is this indicative of ongoing challenges in the implementation or identification of the most qualified office/individual to work the mechanics of those missing provisions?

Secretary ESPER. The delay is indicative of ongoing implementation challenges due to three remaining rights pertaining to legal matters that do not lend themselves to unilateral action by the Department. The Department is working to reach agreement with the Military Housing Privatization Initiative companies and their third party lenders to operationalize these rights.

33. Senator TILLIS. Secretary Esper, as you retrofit the military housing program, what are you doing to improve the fundamentals of DOD's business model in housing?

Secretary ESPER. The Department of Defense (DOD) has taken a number of actions to improve DOD's business model for providing oversight of our housing program, to include:

- Establishing a Chief Housing Officer to provide overall Military Housing Privatization Initiative (MHPI) program oversight.
- Hiring additional housing-related staff to increase oversight and responsiveness to tenant concerns and increasing training for leadership and housing-related staff.
- Enhancing installation communication with tenants.
- Implementing measures set out in the Fiscal Year 2020 National Defense Authorization Act, to include; hiring/identifying military tenant advocates; requiring MHPI landlords implement electronic work order systems to improve transparency and tracking of tenant requests for repairs; developing a comprehensive work order approach to evaluate property management performance and better incentivize MHPI landlords; and an improved dispute resolution process.
- Implementing a comprehensive work order approach to evaluate property management performance and better incentivize MHPI landlords.
- Improving policy and processes when residents raise health concerns that may be related to their housing.
- Reviewing the Basic Allowance for Housing (BAH) rate setting process to ensure BAH rates, which serve as the basis for MHPI housing rents and project revenue, appropriately reflect the local military housing market rents.

34. Senator TILLIS. Secretary Esper, how are you refocusing DOD and the housing industry to fix our housing issues?

Secretary ESPER. The Department of Defense (DOD) has a dual focus on ensuring a positive living experience for residents and financially viable projects that deliver safe, quality, well-maintained housing. During the past year, the Department has taken a number of actions to address Military Housing Privatization Initiative (MHPI) housing issues, to include increasing leadership engagement with MHPI landlords, hiring additional housing-related staff, making work order progress transparent and assessable to residents and housing staff, and increasing leadership and staff training. In addition, the Department has issued policy requiring that Military Departments revise performance fee metrics to better incentivize the privatization projects to improve conditions on the ground; and has required that Military Departments undertake reviews of their MHPI project business processes, as well as their

internal processes, to identify where practices required improvement. Consistent with the Fiscal Year 2020 National Defense Authorization Act, in February 2020 the Department designated a Chief Housing Officer (CHO) to provide oversight of the MHPI program. The CHO's responsibilities include leading DOD's efforts to work with MHPI landlords to improve housing conditions and address resident concerns; ensuring implementation the Tenant Bill of Rights and other MHPI requirements in the Fiscal Year 2020 NDAA; and monitoring the long-term financial viability of the MHPI projects.

35. Senator TILLIS. Secretary Esper, how confident are you in the underlying structure of the proposed Global Household Good Contract (GHC) to coordinate and shift capacity requirements?

Secretary ESPER. While the Global Household Good Contract (GHC) will not be in place until the 2021 move season, implementing it offers the Department the opportunity to set terms and conditions that favor Department of Defense (DOD) families and an avenue to hold industry accountable. It's important to note that we have no formal contractual relationship with our disparate industry-base today; in addition to improving accountability, this construct provides industry with the rationale to invest in quality capacity to meet DOD's peak demand. Changing our relationship with industry is necessary to improve access to—and management of—quality capacity to meet our peak summer demand and enable DOD to affix the accountability and responsibility lacking in today's program. The current disaggregated program will never deliver the quality our families deserve or the accountability the Congress demands. Recent studies validate this approach. The Business Case Analysis U.S. Transportation Command submitted to the Defense Committees in January underscores the value of the GHC. I was similarly encouraged by the GAO's report on this subject—the GAO made sensible recommendations to improving the program, but recommended no changes to the Department's acquisition approach or timeline.

36. Senator TILLIS. Secretary Esper, I have concerns about (1) resiliency, (2) peak season transition phase, (3) system accountability, and (4) driver recruitment. Are we prepared to provide quality service to our military families this upcoming PCS season?

Secretary ESPER. This summer's permanent change of station (PCS) season will be particularly challenging due to the outbreak of COVID–19 and the impacts on the household goods industry. We will continue to execute this season under the existing framework with the Global Household Goods Contract implementation after the completion of the peak season. The service personnel and logistics communities are working closely with U.S. Transportation Command (USTRANSCOM) and my staff to understand demand and capacity. With this understanding, we will appropriately review report dates and move schedules to meet service and servicemember requirements. USTRANSCOM continues to work closely with the moving industry to understand challenges and communicate the dynamic nature the Department's demand signal. With the Stop Move order remaining in place, the normal summer peak season will be approximately half over before we begin relocations on a large scale. As we resume travel and relocation, our main priority will be the safety of our members and their families.

1. *Resiliency.* The household goods relocation industry has been impacted by the COVID–19 outbreak with many States restricting operations and a significant drop in the number of military moves. As the outbreak reduces in severity and the military resumes moves on a larger scale, there may be some capacity issues but USTRANSCOM's engagement with industry indicates that with sufficient lead time and a ramp up period, industry can get 'back to normal' capacity levels to support military moves.
2. *Peak season transition phase.* Once the stop move order is lifted, we expect to see a short ramp up period and then will have high volumes for several months due to the high number of moves that have been delayed. USTRANSCOM is communicating with the moving industry and services on a weekly basis to provide a consolidated view of Department of Defense demand as well as inform the Service's decisions on prioritizing and staggering PCSs to avoid exceeding capacity. Due to the late start of the peak season, we expect a higher number of movers to be moving in the early fall as the backlog is cleared.
3. *System accountability.* We are committed to ensuring that servicemembers and their families receive the support they need during the PCS process. Through our quality assurance inspections, servicemember counseling, and program management, we will do everything we can to increase the likelihood of a positive move experience.

4. *Driver recruitment.* The trucking industry as a whole has been significantly disrupted due to changing demand patterns and an overall decrease in commercial activity. Through timely communication with our industry partners, we are supporting their efforts to match demand with capacity. We expect industry will be able to react to that demand and deliver near historical capacity.

DOD COMMUNICATION AND TRANSPARENCY

37. Senator TILLIS. Secretary Esper, military families insist that DOD needs to improve how it educates and communicates with the force. This question extends beyond communication issues between families and housing companies, it's also about improving the culture of DOD, particularly how well it communicates and informs servicemembers and their families. Do I have your commitment to addressing those concerns?

Secretary ESPER. Yes, you have my commitment to address these concerns. As indicated in my letter to the SASC and HASC on day one, and as a personal challenge, I added a fourth line of effort of taking care of Service members and their families as part of our National Defense Strategy. We deliver critical family readiness information that helps our families live their best military lives through the Department's flagship program for supporting our people—Military OneSource—and I commit to continue using this and other platforms to communicate and inform families.

AFGHANISTAN

38. Senator TILLIS. Secretary Esper, could you please provide an assessment of how you think the recent peace deal with the Taliban will effect operations, troop levels, and future United States policy toward Afghanistan?

Secretary ESPER. Since the signing of the United States-Taliban Agreement on February 29, 2020, the United States has proceeded with a plan to reduce United States forces in Afghanistan to 8,600 in 135 days. During this time period, the Department of Defense has remained focused on conducting two missions in Afghanistan: training, advising, and assisting the Afghan security forces and executing counterterrorism operations against ISIS–K, al Qaeda, and other terrorist groups. Further implementation of the agreement will occur if the Taliban adhere to the conditions of the agreement, which will be assessed continually. Consistent with the 2017 South Asia Strategy, the best way to end the war in Afghanistan is a political settlement between all Afghans. The signing of the United States-Taliban Agreement and the release of the United States-Afghanistan Joint Declaration were the first steps in this process.

39. Senator TILLIS. Secretary Esper, what risks do we, the United States, assume in entering into this agreement?

Secretary ESPER. As with all agreements, there are risks. However, the United States has mitigated the risks to our national security interests in the United States-Taliban Agreement by embedding conditionality in the agreement. If the United States assesses that the Taliban is not complying with the terms, we could nullify the agreement. This could result in a resumption of offensive operations against the Taliban and halting, or potentially reversing, the withdrawal of U.S. forces. We continue to urge the Taliban to choose the path to peace.

RUSSIA-TURKEY RELATIONS

40. Senator TILLIS. General Milley, Russia-Turkey relations is in contention over provocative acts by Moscow against the Turkish military. How does that change the calculus of capability and capacity in the joint environment, particularly with NATO forces?

General MILLEY. We deeply regret the loss of Turkish soldiers in Idlib due to pro-Regime air strikes. Idlib is a unique case. For political reasons, Turkey does not have air superiority in Idlib—pro-regime forces do. Additionally, this is in many ways a proxy fight between pro-regime forces and Turkish Supported Opposition. For these reasons, we cannot draw real conclusions with respect to NATO capability and capacity from Syria. Russia continues to act as a destabilizing element in Syria and remains an unreliable partner. The conflict in Syria has highlighted the untrustworthiness of Russia to the entire NATO alliance.

41. Senator TILLIS. General Milley, what does this mean for regional focus and strategy?

General MILLEY. Russia has proved to be an unreliable partner for Turkey in several regions. In Syria, Russo-Turkish friction reinforces the need for a political reso-

lution under the auspices of UNSCR 2254. In Libya, Russian involvement is prolonging the conflict and preventing a diplomatic resolution. For Turkey and for our other Allies and Partners, Moscow's provocative acts underscore the unreliability of Russia as a partner. As the global ally and partner of choice, the United States will work through the UN, with NATO, and in other multilateral and bilateral fora to counter Russian aggression and malign influence.

LEADER DEVELOPMENT/TALENT MANAGEMENT

42. Senator TILLIS. General Milley, in your testimony, you mentioned the leadership development aspect of maintaining our military competitive advantage. Within your Talent Management Enterprise, how are you maximizing the human talent in the joint force?

General MILLEY. The Joints Chiefs and I have an ambitious vision to create a fully aligned Professional Military Education and Talent Management system that identifies, develops, and utilizes strategically minded, critically thinking, and creative joint warfighters skilled in the art of war and the practical and ethical application of lethal military power. Our intent is to produce leaders at all levels who can achieve intellectual overmatch against strategic competitors and adversaries. In the Talent Management space, this entails rewarding continuous intellectual development and growth; holding individuals accountable for academic performance in their records; targeting those who have performed well academically for follow-on assignments that hone newly acquired skills; and by better matching the cognitive abilities of individuals with appropriate PME opportunities and positions of responsibility.

QUESTIONS SUBMITTED BY SENATOR DAN SULLIVAN

DEFENSE POLICY REVIEW INITIATIVE (DPRI)

43. Senator SULLIVAN. Secretary Esper, how is your combatant commands review of INDOPACOM—and as a subset, DPRI—taking into consideration the criteria of strategic presence, training opportunities, host-nation support, cost, and potential for growth?

Secretary ESPER. The combatant command review for U.S. Indo-Pacific Command (USINDOPACOM) has not yet commenced. The Department shares your appreciation for the importance of the criteria you outline. These, along with other critical posture criteria, will be a part of the overall review process calculus, ultimately guided by the 2018 National Defense Strategy and optimized within political, geographical, and budgetary constraints, all of which will best position our military forces to compete, deter, and, if needed, win in this theater.

44. Senator SULLIVAN. Secretary Esper, how would you optimize DOD's force posture in INDOPACOM?

Secretary ESPER. The 2018 National Defense Strategy recognizes the need to make investments that will solidify our competitive advantage and modernize how we operate, particularly in the Indo-Pacific region. To that end, the Department continues to adapt our current posture that is concentrated in Northeast Asia to a posture that is more geographically distributed, operationally resilient, and politically sustainable. The Department also faces key deficits in resilient and agile logistics. The Department will make investments to prioritize prepositioned forward stocks and munitions and mobility assets, and will seek partner and allied support, to ensure logistics sustainment can be maintained while under persistent multi-domain attack.

45. Senator SULLIVAN. Secretary Esper, what specific changes would you potentially look to make?

Secretary ESPER. The Department seeks to transition from large, unhardened infrastructure to smaller, dispersed, resilient basing that incorporates active and passive defenses. The most critical investments for increasing joint force lethality and resilience in the Indo-Pacific theaters include: survivable and resilient communications and intelligence, surveillance, and reconnaissance (ISR) systems; survivable long-range strike platforms and munitions; and cost-effective missile defenses capable of engaging sophisticated air, cruise, ballistic, and hypersonic threats. In particular, the Department will have to make significant investments to maintain and extend the joint force's advantages in the undersea, air, space, and cyber domains.

MISSILE DEFENSE

46. Senator SULLIVAN. Secretary Esper and General Milley, what are the strategic and tactical risks of waiting a decade to fill the twenty empty ground-based interception (GBI) silos in Missile Field 4 at Fort Greely, Alaska, as you work to field the Next Generation Interceptor (NGI)?

Secretary ESPER. The United States continues to strengthen its homeland missile defenses and is pursuing more advanced capabilities to stay ahead of rogue state threats and reduce the risk of attack. Today, the U.S. is defended by the Ground-based Midcourse Defense (GMD) system which includes 44 Ground-based Interceptors (GBIs). To improve the current GMD system, the Fiscal Year 2021 budget request includes funds for: Improvements to existing sensors; a new discrimination radar in Alaska; and refurbishing the COBRA DANE radar.

The Department of Defense (DOD) is pursuing more advanced capabilities to continue providing effective protection for the Nation. First, it is modernizing the GMD system. This effort includes the development of a new interceptor to meet evolving missile threats—the Next Generation Interceptor (NGI). The Department is planning to field the NGI beginning in 2028 and will continue delivering new interceptors into the fleet until we meet the appropriate mix of 64 interceptors. Second, DOD is improving reliability and extending service life of the existing GMD system until replaced by the NGI by conducting a Service Life Extension Program (SLEP) with older GBIs and by continuing Stockpile Reliability Program (SRP) and Service Life Extension (SLE) testing to inform SLEP upgrade decisions. Third, to strengthen the defense of the Homeland, especially between now and when NGI becomes operational late in the decade, DOD is examining options for a layered homeland missile defense architecture. For example, the Missile Defense Agency will conduct a flight test later this year of the SM–3 Block IIA against an Intercontinental Ballistic Missile-class target to determine its potential contribution as an additional layer for the homeland defense architecture. Within a layered defense architecture, the SM–3 IIA could offer additional opportunities to defeat missile threats in the late mid-course phase to complement the existing GBIs. With these efforts, the U. S. will be postured to effectively meet the evolving missile threats to the Homeland.

General MILLEY. As outlined in the 2019 Missile Defense Review, it is imperative that U.S. Homeland missile defenses outpace rogue state missile threats. Our missile defense posture includes active and passive defensive capabilities, as well as offensive options, that together comprise a comprehensive and layered missile defense architecture. I believe North Korea will continue to develop its intercontinental ballistic missile program to hold the U.S. Homeland at risk. Due to the uncertainty of how that threat will advance over the next decade, we must optimize our investment strategy to ensure that we can protect the Homeland against these potential rogue threats not only today, but also well into the future.

47. Senator SULLIVAN. Secretary Esper and General Milley, the planned NGI gives the Department the capabilities needed to defend against future rogue nation threats but not until a decade away in 2030. In addition to fielding the NGI, would you prefer to see an interim solution—or an earlier version of NGI—fielded years sooner in order to boost the limited homeland missile defense capability?

Secretary ESPER. The Missile Defense Agency has worked with U.S. Northern Command and other Department of Defense (DOD) stakeholders to define the requirements for Next Generation Interceptor (NGI) that enable earliest possible fielding while still providing the needed capability to defend against the projected threats to the Homeland in 2030 and beyond. NGI contract incentives have been included to incentivize delivery of NGI in less than the 10 years referenced above. To strengthen the defense of the Homeland between now and when NGI becomes operational late in the decade, DOD is examining options for a layered homeland missile defense architecture. Existing defensive systems, to include the Aegis Weapon System using the Standard Missile-3 Block IIA missile and the Terminal High Altitude Area Defense system could offer additional opportunities to defeat limited missile threats and augment the existing Ground-based Midcourse Defense system. Without sacrificing critical requirements that enable a credible homeland defense capability, any interim solution to replace the Ground-Based Interceptor would be on a similar timeline to NGI.

General MILLEY. The Ground-based Midcourse Defense (GMD) system currently provides effective defense of the United States against rogue threats. We are implementing several measures that will bolster protection of the Homeland to include improvements to existing sensors, adding a new discrimination radar in Alaska, and refurbishing the COBRA DANE radar. We are also investigating the feasibility of further augmenting our current system with additional sensors and weapons that

could possibly provide additional engagement opportunities against inbound threats. A layered architecture of sensors and interceptors, one that potentially includes the SM3–IIA and/or a modified THAAD interceptor, could complement existing Ground Based Interceptor capability to provide additional protection of the Homeland against a rogue nation ICBM attack.

48. Senator SULLIVAN. Secretary Esper and General Milley, would you prefer to see more, but slightly less-capable, interceptors sooner, or more, perfectly-capable interceptors much later?

Secretary ESPER. The Department has coordinated with U.S. Northern Command to define the minimum set of Next Generation Interceptor (NGI) requirements to enable earliest possible fielding of NGI while still providing the needed capability to defend against the projected threats to the Homeland. Without sacrificing critical requirements that enable a credible homeland defense capability, any interim solution to replace the Ground-Based Interceptor would be on a similar timeline to NGI.

General MILLEY. As the 2019 Missile Defense Review directs, I prefer to maintain a capability that continues to outpace the rogue missile threat against the Homeland. Ultimately, we must balance cost, schedule, technology, and performance trade-offs when developing an acquisition strategy with finite resources. That strategy must be able to address projected challenges in both capacity and capability in order to stay ahead of the threat. We assess that our chosen strategy best balances those risks over the next decade. It also important to note that our long-term strategy is dependent upon improvements in our terrestrial and space-based sensor portfolios to maximize our capability to defend against emerging threats in all phases of flight.

STRATEGIC ARCTIC PORT

49. Senator SULLIVAN. Secretary Esper, a provision in the Senate-passed fiscal year 2020 NDAA allows the Secretary of Defense to designate sites for a Strategic Arctic Port. What is the status on your decision to designate sites for a Strategic Arctic Port?

Secretary ESPER. The Department has initiated work on the Strategic Arctic Port assessment. That evaluation has not yet reached a point where I have been presented with a recommendation.

50. Senator SULLIVAN. Secretary Esper, how are you factoring the emergence of greater power competition from both Russia and China in the Arctic into your decision?

Secretary ESPER. The Department applies the guidance contained in the 2018 National Defense Strategy and the 2019 Arctic Strategy when evaluating Arctic-related issues associated with great power competition.

ARCTIC COMMUNICATIONS

51. Senator SULLIVAN. Secretary Esper, in testimony this week, General Terrance O'Shaughnessy stated, "Over the last year, our commands have worked alongside the military services and the Office of the Secretary of Defense to ensure that our warfighting requirements are met, with particular emphasis on improving joint domain awareness and communications. In order to reclaim our strategic advantage in the high north, it is critical that we improve our ability to detect and track surface vessels and aircraft in our Arctic approaches and establish more reliable secure communications for our joint force warfighters operating in the higher latitudes." What exactly are the military services and the Office of the Secretary of Defense doing in this regard and what specific progress are they each making?

Secretary ESPER. The Department of Defense (DOD) recently completed a Report on Arctic Capabilities and Resource Gaps that detailed issues related to domain awareness and communications.

On Domain Awareness—DOD has the ability to sense and otherwise detect and track contacts in the region through a number of U.S. military installations and platforms. These capabilities are further bolstered by cooperation with allies and partners. DOD is researching options that will support enhanced domain awareness in the Arctic. For example, the Air Force is working with U.S. allies, partners, and the private sector to examine mutually beneficial partnerships to address common space challenges in the Arctic.

On Communications—DOD has the ability to execute core communications requirements. DOD is working with U.S. interagency partners to address communications challenges in the Arctic, including through the Department of Homeland Secu-

rity's Arctic Domain Awareness Center. Capability requirements in these areas may change as the Arctic region becomes more accessible.

ARCTIC THREATS

52. Senator SULLIVAN. Secretary Esper and General Milley, what do you see as the key threats to U.S. interests and security in the Arctic region?

Secretary ESPER. Both Russia and China pose threats to United States interests and security in the Arctic. I have provided the Committee an intelligence assessment with additional classified details.

General MILLEY. DOD seeks a secure and stable Arctic region where U.S. national interests are safeguarded, the U.S. Homeland is defended, and nations work cooperatively to address challenges. We currently assess the risk of conflict in the Arctic as minimal. However, DOD recognizes that Russia and China are actively challenging the Arctic rules-based order. Russia views itself as a polar great power and is the largest Arctic nation by landmass, population, and military presence above the Arctic Circle. It is recognized that Russia could attempt to use its military capabilities to deny access to disputed Arctic waters or resources.

China is attempting to gain a role in the Arctic in ways that may undermine international rules and norms, and there is a risk that its predatory economic behavior globally may be repeated in the Arctic. Moreover, China is increasing its presence through economic outreach, investments in Arctic states' strategic sectors, and scientific activities.

The Arctic is a rapidly evolving security environment in which the Joint Force must present a credible deterrent to conflict, maintaining its flexibility to respond promptly and effectively to contingencies in the region.

QUESTIONS SUBMITTED BY SENATOR JOSH HAWLEY

IRAN DETERRENCE

53. Senator HAWLEY. General Milley, what is the process used by the Joint Staff in its role as global integrator for determining the number and composition of U.S. military forces that can be sent to United States Central Command (CENTCOM) in a given period of time for the purpose of deterring Iranian aggression without undermining INDOPACOM's ability to deter Chinese aggression, EUCOM's ability to deter Russian aggression, or both?

General MILLEY. The Global Force Management Process allows me to provide risk informed military advice to the Secretary of Defense for his decisions. This process solicits risk inputs from all stakeholders, so as a global integrator, I can fully understand not only the short-term risks but longer term considerations as well.

While the need to send forces to CENTCOM to support operations deterring Iranian aggressions was needed—this is temporal. Our focus is on near-peer competitors, specifically China and Russia. Part of our strategy is Dynamic Force Employment, which builds readiness over time while enabling rapid response as required.

54. Senator HAWLEY. General Milley, if Iran resumes provocations in the coming months, how many troops can the United States deploy to the CENTCOM AOR for the purpose of deterring further Iranian aggression without undermining INDOPACOM's ability to deter Chinese aggression, EUCOM's ability to deter Russian aggression, or both?

General MILLEY. There are adequate forces in the Central Command Area of Responsibility to deter Iran. However, if deterrence breaks down, I will analyze the situation and recommend to the Secretary any necessary actions to achieve the security objectives relative to Iran. These decisions may or may not include additional force allocation. Force posture is but one of the tools the Joint Force leverages to compete and achieve NDS Priorities. Within the construct of the NDS, the Joint Staff constantly evaluates the force posture within each combatant command and is prepared to recommend options for the Secretary based on the global threat situation, Commander's request, and Service considerations.

QUESTIONS SUBMITTED BY SENATOR JACK REED

ADMINISTRATION ANTI-UNION MEMO/DELEGATION TO SECRETARY OF DEFENSE

55. Senator REED. Secretary Esper, the Administration recently issued a Memorandum, blatantly anti-union, purporting to authorize you to exempt the entire Department of Defense, and all its constituent parts, from collective bargaining re-

quirements under the Federal Service Labor-Management Relations Statute. You testified to the House last week that you neither requested this authority nor knew it was coming. A significant portion of DOD's civilian workforce enjoys protections afforded by their ability to collectively bargain. To clarify again, did you request this authority, or know about it before you saw the Memorandum?

Secretary ESPER. I did not request this authority. The Presidential Memorandum delegates the President's authority to exempt certain agencies and subdivisions based on critera set forth in the statute. I assure you my approach should I choose to exercise this authority, will be deliberative, with full application of the statutory criteria to ensure no employees lose their rights to collective bargaining except under the narrow conditions set by Congress under the Federal Service Labor-Management Relations Statute.

56. Senator REED. Secretary Esper, what is your view of the professionalism and quality of DOD's civilian workforce?

Secretary ESPER. I have a positive view of the professionalism and quality of the Department of Defense's (DOD's) civilian workforce. DOD civilian employees are high performing, and serve as an integral part of our National Defense Strategy. We cannot accomplish our mission without them.

57. Senator REED. Secretary Esper, do you believe that DOD's civilian workforce contributes to the National Defense and enhances national security?

Secretary ESPER. Yes. The Department of Defense's (DOD's) civilian workforce contributes to the National Defense and enhances national security. DOD civilian employees are essential for DOD's warfighting success, working side-by-side with our military members to protect America from existing and emerging threats across every operating domain.

58. Senator REED. Secretary Esper, there have been numerous disruptions to DOD's civilian workforce over the past decade—including furloughs, multiple pay freezes, and hiring freezes at all levels. Do you believe these disruptions have helped or hurt DOD in executing its mission?

Secretary ESPER. While furloughs, pay freezes, and hiring freezes have caused disruptions to the Department of Defense (DOD) civilian workforce over the past decade, my experience has been that the Department has effectively managed the workforce to successfully achieve DOD mission objectives.

59. Senator REED. Secretary Esper, do you believe removing collective bargaining rights from those who have them now would be a disruption to their employment and to the execution of DOD's mission?

Secretary ESPER. An employee whose agency or subdivision is excluded based on the statutory criteria set forth in the Federal Service Labor Management Relations Statute would no longer be covered by the federal labor-management relations program. However, this will not cause a disruption to the employee's employment or the execution of the DOD mission.

TENANT BILL OF RIGHTS FOR PRIVATIZED HOUSING

60. Senator REED. Secretary Esper, last week you finally approved your version of a Tenant Bill of Rights for families living in privatized housing. Yet you chose to omit three key tenets required in the Fiscal Year 2020 NDAA. Your accompanying statement incorrectly claimed that the three rights related to dispute resolution, maintenance history, and withholding of rent "were not anticipated by DOD."

In fact, back in May of last year, your own department shared with our Committee a working draft, which included a dispute resolution process and the ability to withhold rent. In June of last year, you were aware of the right to maintenance history once the Senate bill became public.

Secretary Esper, is it true that you and DOD were in fact aware of these tenant rights, had them in your own working drafts, and were certainly aware of them after the Senate bill was publicly released in June of last year?

Secretary ESPER. The rights set out in the Fiscal Year 2020 National Defense Authorization Act were far more prescriptive than originally set out in the Senate bill or incorporated into our working drafts. The requirements for the three remaining rights raised concerns that the Department is working through in coordination with the Military Housing Privatization Initiative (MHPI) companies, given that the MHPI companies and their third party lenders must agree to incorporate these rights and procedures into appropriate project legal documents. The Department will work with Congress as necessary to ensure these rights are provided to MHPI

tenants. The Department is working with the MHPI project landlords on an approach to expedite provision of these remaining rights.

61. Senator REED. Secretary Esper, do you agree that even if these three basic housing rights are not in your Bill of Rights, that they are still in fact now legal protections for military families and rights by law as codified by the Fiscal Year 2020 NDAA?

Secretary ESPER. Legislation cannot alter the terms and conditions of previously executed legal agreements. The Military Housing Privatization Initiative (MHPI) companies must agree to incorporate the three remaining rights into existing MHPI project legal documents and, for the dispute resolution and rent withholding processes, the MHPI projects' third party lenders must approve those changes; the three remaining rights do not lend themselves to unilateral action by the Department. The Department of Defense is working the MHPI companies and, as necessary, will work with Congress to ensure the benefits of these rights are fully available to military members and their families who are tenants of MHPI housing. In the short term, the Department is leaning forward to put in place interim procedures to provide the benefit of these rights to tenants while we work to finalize necessary changes to the project legal agreements.

JOINT OPERATIONAL CONCEPTS

62. Senator REED. Secretary Esper, section 1708 of the Fiscal Year 2020 National Defense Authorization Act included a requirement that the Secretary of Defense provide a report to Congress on the implementation of the National Defense Strategy. The report must include an explanation of the joint operational concepts developed by the Department of Defense; the required force posture changes to implement the NDS; any necessary adjustments to program budgets; an assessment of personnel and organizational changes; and the resources necessary to implement operational concepts.

In addition, the law requires that the Secretary of Defense provide for two independent studies on the development of joint operational concepts. A federally funded research and development center (FFRDC) will perform one study, and an independent, non-governmental 501 (c)(3) organization will perform the other study.

The Committee understands that the Department of Defense has not made progress on fulfilling this congressional mandate.

Secretary Esper, please provide a status update on what actions the Department has taken to date in order to comply with the reporting requirement in section 1708.

Secretary ESPER. Since the release of the National Defense Strategy (NDS), we have been making strides in aligning our posture, resources, and personnel with the NDS priorities. These efforts will be shaped by the development of our new Joint Warfighting Concept (JWC), which will greatly influence future force development and design. To date, the Joint Staff and Office of the Undersecretary of Defense for Policy (OUSD(P)) have had several conversations with the House Armed Services Committee and Senate Armed Services Committee professional staff members on section 1708. During these conversations, we agreed to provide periodic updates on the JWC development and NDS implementation beginning in May 2020, and to provide the final reports in early 2021. OUSD(P) and the Joint Staff have identified lead components for answering the reporting requirements, and have identified several potential federally funded research and development centers (FFRDCs) and non-FFRDC think tanks to meet the independent assessment requirements.

63. Senator REED. Secretary Esper, which component within the Department have you chosen to be the lead for meeting the reporting requirement in section 1708?

Secretary ESPER. We have chosen the Office of the Undersecretary of Defense for Policy, working in close coordination with the Joint Staff and the other Office of the Secretary of Defense components, to be the lead component for meeting the section 1708 reporting requirements.

64. Senator REED. Secretary Esper, have you determined which FFRDC and independent, non-governmental 501 (c)(3) organization will perform the independent studies mandated by the law?

Secretary ESPER. We have identified several potential federally funded research and development centers (FFRDCs) and non-FFRDC think tanks to perform the independent assessments required by section 1708. We have not yet put any single organization on contract to perform the assessments while we work with the House Armed Services Committee and Senate Armed Services Committee to delineate more clearly the specifics of the assessment requirements.

AFGHANISTAN AGREEMENT

65. Senator REED. Secretary Esper, how is it that the implementation and monitoring documents that have been signed and communicated widely to members of the Taliban are classified Secret?

Secretary ESPER. I defer to the State Department on questions pertaining to negotiations with the Taliban and the associated documents.

66. Senator REED. Secretary Esper and General Milley, given the Taliban announcement of a resumption of violence against our Afghan partners, what expectations have we communicated to our Afghan Security Force partners with regard to conducting offensive operations going forward?

Secretary ESPER. We have made clear to the Taliban and our Afghan security force partners that we will continue to defend Afghan security forces against Taliban attacks, and Coalition forces continue to support our partners through the train, advise, and assist mission. Afghan security leaders have directed their forces to take appropriate measures to prevent and defend against Taliban attacks. Consistent with the United States-Taliban Agreement, the United States will continue its pause in offensive operations against the Taliban so long as the Taliban adhere to their end of the deal. If the United States Government assesses that the Taliban is not complying with the agreement, the Department has the authorities and capabilities to resume offensive operations against the Taliban.

General MILLEY. We have made clear to the Taliban and our Afghan security force partners that we will continue to defend Afghan security forces against Taliban attacks and Coalition forces continue to support our partners through the train, advise, and assist mission. Afghan security leaders have directed their forces to take appropriate measures to prevent and defend against Taliban attacks. Per the United States-Taliban agreement, the United States is pausing offensive operations against the Taliban so long as they adhere to their end of the deal. If the United States Government assesses that the Taliban are not complying with the agreement, the Department has the authorities and capabilities to resume offensive attacks against the Taliban.

67. Senator REED. Secretary Esper and General Milley, what support are U.S. and coalition military advisors and intelligence professionals authorized to provide for any such offensive operations?

Secretary ESPER. Under the NATO-led Resolute Support Mission, United States and Coalition forces provide training, advice, and assistance to our Afghan security force partners, focusing on leadership development and institutional capacity building, including advising Afghan forces on planning operations and providing enabler support to those operations. The agreement with the Taliban has not affected the Department's authorities used to provide such support. The United States continues to defend the ANDSF against Taliban offensive attacks.

General MILLEY. Under the NATO-led Resolute Support Mission, United States and Coalition forces provide training, advising, and assistance to the Afghan National Defense and Security Forces (ANDSF), focusing on leadership development and institutional capacity building, including advising Afghan forces on planning operations and providing enabler support to those operations. The agreement with the Taliban has not resulted in any reduction in authorities for U.S. forces conducting Operation FREEDOM'S SENTINEL. The United States continues to defend the ANDSF against Taliban offensive attacks.

68. Senator REED. Secretary Esper and General Milley, given the sizeable air support we provide Afghan Security Forces, from moving personnel and cargo, to ISR, to close air support, what commitments have we made to our Afghan partners in terms of this support going forward?

Secretary ESPER. The agreement with the Taliban has not resulted in any reduction in operational authorities for United States Forces—Afghanistan (USFOR–A) to provide those kinds of combat enabler support. As agreed upon in the United States-Afghanistan Joint Declaration: "The United States re-affirms its commitments regarding support for the Afghan security forces and other government institutions, including through ongoing efforts to enhance the ability of Afghan security forces to deter and respond to internal and external threats, consistent with its commitments under existing security agreements between the two governments. This commitment includes support to Afghan security forces to prevent al Qaeda, ISIS–K, and other international terrorist groups or individuals from using Afghan soil to threaten the United States and its allies."

General MILLEY. The agreement with the Taliban has not resulted in any reduction in operational authorities for Operation FREEDOM'S SENTINEL to provide those kinds of combat enabler support.

69. Senator REED. Secretary Esper and General Milley, more specifically, when will we be able to come to their aid and when will we be restricted from doing so under this agreement?

Secretary ESPER. The agreement with the Taliban has not resulted in any reduction in operational authorities for USFOR–A. We have reiterated our commitment to the ANDSF to defend them from attacks.

General MILLEY. The agreement with the Taliban has not resulted in any reduction in operational authorities for Operation FREEDOM'S SENTINEL. It is at the discretion of the Commander USFOR–A to determine when to employ forces to come to the aid and defense of the ANDSF, and we have reiterated our commitment to the ANDSF to defend them from attacks.

70. Senator REED. Secretary Esper, what is your understanding as to how the 14-month withdrawal timeline was reached?

Secretary ESPER. The Department of Defense provided advice on the appropriate time and conditions for a safe and orderly withdrawal that protect our forces, but I defer to the State Department on questions pertaining to the specifics of negotiations with the Taliban.

71. Senator REED. Secretary Esper and General Milley, do you believe that 14 months is sufficient time to assess the seriousness with which the Taliban will address terrorist threats emanating from Afghanistan?

Secretary ESPER. Yes, I do. I have provided the Committee with an intelligence report with additional classified information regarding how the Department intends to assess this issue.

General MILLEY. We have assessed that 14 months is sufficient to assess the Taliban's compliance with the agreement. That period can be extended or halted as necessary depending on compliance. The United States will closely monitor the Taliban's compliance with its counterterrorism commitments under the United States—Taliban agreement over the next 14 months and beyond.

72. Senator REED. Secretary Esper and General Milley, do you believe coalition forces will be able to both conduct the rigorous monitoring and verification needed and also carry out a full scale withdrawal?

Secretary ESPER. The United States Government has developed a robust process for monitoring implementation of the agreement and verifying Taliban compliance. The agreement is not based on trust; it is based on whether we can verify Taliban compliance. This process compiles information and intelligence from United States Forces-Afghanistan and interagency partners to support monitoring and verification of the agreement.

General MILLEY. The United States Government has developed a robust process for monitoring implementation of the agreement and verifying Taliban compliance. The agreement is not based on trust; it is based on whether we can verify Taliban compliance. This process compiles information and intelligence from Resolute Support and across the interagency to support monitoring and verification of the agreement. The process will adjust as forces are drawn down. Monitoring and verification is not limited to military forces. It is a whole-of-government effort.

ACQUISITION AND CROSS-SERVICING AGREEMENTS

73. Senator REED. Secretary Esper, oversight efforts by the Committee uncovered that the Department had not properly sought repayment from Saudi Arabia and UAE for approximately $300 million in aerial refueling support provided by the United States for operations in Yemen. I understand UAE has fully reimbursed DOD, but Saudi Arabia still owes approximately $67 million.

Given the accounting errors the Committee uncovered, we asked the GAO to investigate the Department's broader provision of reimbursable support around the world. According to a GAO report released on March 4, the Department has failed to secure reimbursement for more than $1 billion in support provided to other nations.

What steps will the Department be taking to recover the more than $1 billion it is owed by foreign partners?

Secretary ESPER. Since ceasing aerial refueling support to the Saudi-led Coalition operating in Yemen in November 2018, the Department has worked with both Saudi

Arabia and the United Arab Emirates to recoup the costs for our support. As indicated, the United Arab Emirates has paid in full. Saudi Arabia's costs for aerial refueling support are divided into two categories: Costs for flight hours and fuel costs. Saudi Arabia has paid 4 installments totaling $151.2 million for costs for flight hours in Fiscal Years 2015–2017. However, Saudi Arabia has not yet paid a $6.3 million charge for the flight hours costs for Fiscal Year 2018. Furthermore, Saudi Arabia has not paid for any of the fuel costs during Fiscal Years 2015–2018 because we have not yet invoiced Saudi Arabia for any of the fuel costs for Fiscal Years 2015–2018. The Department is preparing invoices for the fuel costs for submission to Saudi Arabia.

The Office of the Secretary of Defense continues to work with the Military Departments to close its open ACSA transactions by making final payments and seeking final reimbursement for Logistic Support, Supplies, and Services provided by the Military Departments to international partners.

74. Senator REED. Secretary Esper, how is the Department improving its accounting practices to ensure such oversights don't happen again in the future?

Secretary ESPER. The Office of the Secretary of Defense is assessing options to improve the accountability of Military Department execution and reconciliation of ACSA transactions and will provide me with recommendations for implementing new accounting oversight procedures.

QUESTIONS SUBMITTED BY SENATOR JEANNE SHAHEEN

COLLECTIVE BARGAINING

75. Senator SHAHEEN. Secretary Esper, in New Hampshire and across the country, the DOD civilian workforce proudly supports our Nation's military and national security interests. The Department has historically had a productive relationship working with the labor unions that represent these dedicated employees. However, a January 29 memo signed by President Trump authorized you to waive the collective bargaining rights of the nearly 750,000 civilian workers in the Department of Defense, citing the need for increased flexibility when carrying out DOD's national security mission. Do you plan to exercise this authority to exclude Defense civilians from the right to bargain collectively?

Secretary ESPER. Should I choose to exercise the authority delegated to me by the Presidential Memorandum, I assure you my approach will be deliberative, with full application of the statutory criteria to ensure no employees lose their rights to collective bargaining except under the narrow conditions set by Congress under the Federal Service Labor-Management Relations Statute.

76. Senator SHAHEEN. Secretary Esper, under what circumstances would this flexibility be necessary for national security, and do you believe we are experiencing these circumstances now?

Secretary ESPER. The President has statutory authority to limit the scope of collective bargaining based on national security if specific statutory criteria are met. Every President, including former President Barack Obama, has exercised the authority to limit these rights since Congress granted Federal employees the right to collectively bargain. If I decide to exercise this authority as granted by the Presidential Memorandum, I will do so following the criteria under the law and with the same level of rigor that has been exercised in the past.

If and when this authority is utilized, it will be exercised as outlined in the statute for those agencies and subdivisions that have a primary function of intelligence, counterintelligence, investigative, or national security work; and where the provisions of the statute cannot be applied to that organization in a manner consistent with national security requirements and considerations.

77. Senator SHAHEEN. Secretary Esper, if implemented, how could this departure from the long-standing practices and culture at DOD impact our Nation's military readiness?

Secretary ESPER. The Department respects the rights of its employees to collectively bargain under the law and is committed to maintaining productive labor-management relationships with its labor unions, some of which have existed for nearly 100 years and predate the establishment of the Department of Defense. Any decision to implement the authority granted by the Presidential Memorandum will not be a departure from our long-standing practice to carefully analyze where collective bargaining interferes with our national security, following the criteria that Congress

has provided for the President. In no way will the Department implement this authority in a manner that negatively impacts our Nation's military readiness.

QUESTIONS SUBMITTED BY SENATOR RICHARD BLUMENTHAL

COVID–19 READINESS

78. Senator BLUMENTHAL. Secretary Esper, given the rapid spread of the 2019 Novel Coronavirus, I am deeply concerned about actions the Department of Defense is taking to protect U.S. servicemembers, personnel, and family members stationed at military installations globally. I am also concerned about the threat to the global supply chains that support our defense industrial base. Just today, F–35 production in Japan was halted in Japan due concerns about COVID–19. Last week, I sent a letter to Under Secretary Donovan to request a briefing on the comprehensive DOD response to COVID–19 and an assessment of any impact on military readiness. But I was extremely disappointed—and frankly, horrified—by reporting earlier this week that indicated you warned American military commanders overseas "not to surprise President Trump on the coronavirus." Did you, in fact, direct commanders not to make any decisions related to COVID–19 that might surprise the White House or run afoul of President Trump's messaging on this rapidly spreading disease?

Secretary ESPER. My direction to military commanders is outlined in the Department's top three priorities for dealing with COVID–19. First, we must protect our forces and their families. Second, we must maintain mission readiness. Third, we will continue to support the interagency whole-of-government approach to combating the virus. I will continue to ensure that commanders have the resources necessary to achieve the priorities outlined above.

79. Senator BLUMENTHAL. Secretary Esper, are you concerned that tying the hands of commanders will compromise their ability to protect Americans under their command?

Secretary ESPER. We will continue to empower commanders and take all necessary precautions to ensure that our servicemembers are safe and able to maintain a high state of readiness. To that end, I signed a memorandum on April 1, 2020 titled, "Guidance for Commanders on the Implementation of the Risk-Based Responses to the COVID–19 Pandemic," which empowers leaders at all echelons to take proactive steps to protect local Service members, civilians, and families. This includes the option to implement additional Force Protection Health Condition measures.

80. Senator BLUMENTHAL. Secretary Esper, what specific actions will you take if President Trump—or other Administration officials—make a decision related to COVID–19 that you fear could jeopardize the health and safety of American servicemembers and military families?

Secretary ESPER. My top priority is to protect our Service members, civilians, and their families. Accordingly, I have published comprehensive Force Health Protection Guidance with eight supplements to date. Additionally, the Department closely follows Centers for Disease Control and Prevention (CDC) guidance in order to combat and help stop the spread of COVID–19 in the Department of Defense and in our local communities.

81. Senator BLUMENTHAL. Secretary Esper, do commanders across military services have all the necessary authorities to best protect servicemembers and military families?

Secretary ESPER. Yes. COVID–19 is a dynamic and evolving pandemic which requires an equally dynamic response. Between guidance under my signature and that of the Office of the Under Secretary of Defense for Personnel and Readiness, we've set policy guidance across the spectrum of personnel, travel, health, and readiness, among others. We also published a memorandum reiterating processes to ensure Child Development Programs are taking appropriate actions to ensure safety of children. To date, we've published 31 guidance memos and are continuing to update, extend or draft new guidance as required.

82. Senator BLUMENTHAL. Secretary Esper, does United States Northern Command (NORTHCOM) have all necessary authorities and resources to continue to serve as the global integrator for DOD efforts and entities?

Secretary ESPER. Yes. The published guidance for the Department provides U.S. Northern Command with the necessary policy guidance to perform their role as the Department's synchronizer for our COVID–19 response efforts.

83. Senator BLUMENTHAL. Secretary Esper, I have seen reports that the American Federation of Teachers has urged the Department of Defense Education Activity (DODEA) to protect 700 teachers represented by the unions at schools on military installations globally. What are you doing to implement a comprehensive protocol to protect all Americans working on military installations threatened by COVID–19?

Secretary ESPER. All Department of Defense Education Activity schools are now closed out of an abundance of caution for COVID–19. Our protocol while in session, and even now that they are closed, is to follow the guidelines from their local military commanders. On April 1, 2020 I signed a memorandum titled, "Guidance for Commanders on the Implementation of the Risk-Based Responses to the COVID–19 Pandemic." It states that COVID–19 impacts are different in the many places the Department operates. As a result, leaders at all echelons are expected to take proactive steps to protect local Service members, civilians, and families; assure the readiness of their units consistent with necessary force protection measures; and provide support to the U.S. Government's domestic and international responses to the pandemic. I further directed Commanders to take local force protection measures suitable to the needs of their organizations, as determined by their assessments and reflective of the health conditions of their surrounding communities and direction from Centers for Disease Control COVID–19 public health guidance.

84. Senator BLUMENTHAL. Secretary Esper, will you provide a briefing to members of this Committee on specific actions the Department is taking to prepare for COVID–19—specifically how you will tailor protective guidance for each area of responsibility, and military installation?

Secretary ESPER. Yes, the DepartmeoD COVID–19 Task Force will prepare a brief that includes an overview of our preparations and actions to date, to include our support through U.S. Northern Command to the Federal Emergency Management Agency (FEMA)-led whole-of-government response, direction, policy, and support to services / components / commanders / servicemembers and their families, and medical, logistics and engineering support to FEMA and Health and Human Services.

85. Senator BLUMENTHAL. Secretary Esper, do Military Treatment Facilities have all the necessary equipment—including testing kits, supplies, and sterile spaces—to screen, diagnose, and treat all potential or confirmed COVID–19 cases?

Secretary ESPER. The Department is actively monitoring and ensuring necessary medical equipment is delivered to the military medical treatment facilities (MTFs) as the need arises. While currently, there are no shortages for screening, diagnosing and treating COVID–19 cases at the MTFs, the demand continues to evolve and expand. Additionally, the support through U.S. Northern Command to the Federal Emergency Management Agency (FEMA)-led whole-of-government response will further increase demand for medical equipment and place added stress on the personal protective equipment supply chain. As a result, we will actively and continuously monitor and re-assess medical equipment and supplies at the MTFs.

MILITARY HOUSING—TENANT BILL OF RIGHTS

86. Senator BLUMENTHAL. Secretary Esper, the Fiscal Year 2020 NDAA included urgently needed reforms to address the military housing scandal—and I would like to thank Chairman Inhofe and Ranking Member Reed for their leadership in conducting oversight hearings and championing critical provisions. However, we were all extremely disappointed that your proposed Bill of Rights does not go nearly far enough to protect our military families—it failed to include tenants' rights codified by Congress, and signed into law by the President. This Bill of Rights should have included three basic items: the right to dispute resolution, the ability to withhold rent, and access to a home's maintenance history. I fail to understand why the Bill of Rights omitted these key provisions—arguably, some of the most important to protect military families. Why did you inexplicably decide to drop these three crucial protections for military families, after sharing a draft Bill of Rights with this Committee that included these key protections back in May 2019?

Secretary ESPER. The rights set out in the Fiscal Year 2020 NDAA were far more prescriptive than originally set out in the Senate bill or incorporated into our working drafts. The requirements for the three remaining rights raised concerns that the Department is working through in coordination with the Military Housing Privatiza-

tion Initiative (MHPI) companies, given that the MHPI companies and their third party lenders must agree to incorporate these rights and procedures into appropriate project legal documents. The Department will work with Congress as necessary to ensure these rights are provided to MHPI tenants. The Department is working with the MHPI project landlords on an approach to expedite provision of these remaining rights.

87. Senator BLUMENTHAL. Secretary Esper, what legal action will you take in order to require companies to comply with these protections, as required by law?

Secretary ESPER. I expect the Military Departments to hold the Military Housing Privatization Initiative (MHPI) landlords accountable for abiding by the terms of their MHPI legal agreements; this includes the legal requirements for any of the Tenant Rights covered in the project legal agreements or in the tenant's rental agreement lease with the landlord, to include state or local tenant rights specific to the project's geographic location. If a project fails to abide by the terms of the project legal agreements, the existing deal structures provide the mechanisms for the Military Departments to hold the private-sector MHPI partners accountable. However, legislation cannot alter the terms and conditions of previously executed legal agreements and, therefore, the Department of Defense cannot impose a unilateral requirement for the MHPI Landlords to abide by requirements set out in the Fiscal Year 2020 NDAA. The Department is diligently working solutions with the MHPI Landlords to resolve challenges posed by the three remaining tenant rights so we can expedite implementation of the Fiscal Year 2020 NDAA requirements.

88. Senator BLUMENTHAL. Secretary Esper, can you confirm that—according to the law—military families have the right to dispute resolution, withhold rent, and access maintenance history And that private housing companies must legally comply with these requirements?

Secretary ESPER. Legislation cannot alter the terms and conditions of previously executed legal agreements. The Military Housing Privatization Initiative (MHPI) companies must agree to incorporate the three remaining rights into existing MHPI project legal documents and, for the dispute resolution and rent withholding processes, the MHPI projects' third party lenders must approve those changes; the three remaining rights do not lend themselves to unilateral action by the Department. The Department of Defense is working the MHPI companies and, as necessary, will work with Congress to ensure the benefits of these rights are fully available to military members and their families who are tenants of MHPI housing. In the short term, the Department is leaning forward to put in place interim procedures to provide the benefit of these rights to tenants while we work to finalize necessary changes to the project legal agreements.

89. Senator BLUMENTHAL. Secretary Esper, across the services, how many allegations of fraudulent activity by private contractors have been referred to the Department of Justice (DOJ) for criminal or civil investigation?

Secretary ESPER. The Air Force Office of Special Investigation has referred one Military Housing Privatization Initiative (MHPI) company, Balfour Beatty Communities (BBC), to the Department of Justice for investigation.

90. Senator BLUMENTHAL. Secretary Esper, has DOJ notified you that it has undertaken any civil or criminal investigations in response to your referrals?

Secretary ESPER. No.

91. Senator BLUMENTHAL. Secretary Esper, have the services stopped paying incentive fees to any contractor suspected of fraud, or referred to DOJ for investigations into potential fraud?

Secretary ESPER. The Departments of the Air Force and the Navy are withholding Performance Incentive Fees (PIFs) from all Balfour Beatty Communities (BBC) projects. In addition, the Air Force is withholding PIFs at four Hunt Military Community project sites and two Corvias Military Housing project sites. Reviews by the Army are ongoing but have not identified Military Housing Privatization Initiative (MHPI) project business anomalies indicative of potential fraud such that would justify withholding of PIFs.

92. Senator BLUMENTHAL. Secretary Esper, given this betrayal of military families, how will you work to restore their trust and assure them that your Department will recommit to ensuring that they have safe housing that is free from health hazards?

Secretary ESPER. The Department of Defense's (DOD's) focus has been, and continues to be, on corrective actions to enhance the Military Housing Privatization Initiative (MHPI) program, consistent with our commitment to ensure housing privatization projects provide safe, quality, well-maintained housing for military members and their families, and to rebuild trust with our military families. The recently released Tenant Bill of Rights and Tenant Responsibilities are visible and important commitments in DOD's larger effort to regain resident trust. This is just one of many completed and ongoing improvements to restore the trust of military families. Other completed actions include ensuring housing privatization project owners increase transparency and reporting of maintenance and repair work orders; revising project performance incentive fees; enhancing oversight and leadership engagement with the housing privatization project owners; increasing government housing staff and training; and improving leadership communication with residents.

REDUCTION IN SECURITY COOPERATION FUNDING AND THE IMPORTANCE OF ALLIES

93. Senator BLUMENTHAL. Secretary Esper, in your posture statement, you highlight that "The United States' competitive advantage is not only a result of our unrivaled warfighters and state-of-the-art weapons and equipment, but also our unmatched network of alliances and partnerships." I agree completely and believe that security cooperation and interoperability built through deliberate efforts like EDI and NATO are essential to fulfilling our NDS. Despite the benefits of partnerships like this being clear in places like EUCOM, the President's budget request cuts security cooperation funding across all the COCOMs, and specifically within EUCOM by around 40 percent. Additionally, funding for EDI was cut by over $1 billion in this year's proposal.

Secretary Esper, are you concerned about these drastic funding cuts and the ability to credibly deter Russian aggression and support our Eastern European allies?

Secretary ESPER. The Department has a range of security cooperation tools to support Allies and partners in the United States European Command (USEUCOM) area of responsibility (AOR). In fiscal year 2021, the "National Defense Strategy Implementation (NDS–I) Account," previously the DSCA Security Cooperation Account, was created to reflect the role security cooperation plays in advancing the National Defense Strategy (NDS) by consolidating multiple funding lines to provide greater flexibility in executing programs based on NDS objectives. This consolidation will result in greater efficiencies and cost savings through increased scrutiny combined with active prioritization of security cooperation programs. In fiscal year 2021, the Department plans to allocate approximately $286 million of NDS–I Account funds to building partner capacity efforts in the USEUCOM AOR, which is largely consistent with fiscal year 2020 levels and reflects funding for validated requirements.

Thanks to consistent congressional funding over the last several years, the European Deterrence Initiative (EDI) has reinvigorated United States defense posture in Europe to deter an increasingly malign Russia. EDI is designed to enhance the capability and readiness of United States Forces, NATO Allies, and regional partners for a faster response to any aggression in Europe and to transnational threats by a regional adversary against the territory of NATO Allies. The Department has made significant progress in EDI's five lines of effort: presence, exercises and training, prepositioning, infrastructure, and building partnership capacity. The planned reduction in EDI funds from fiscal year 2019 ($6.5 billion) to fiscal year 2021 ($4.5 billion) reflects the substantial progress the Department has made in establishing needed infrastructure, building Army and Air Force prepositioned equipment sets, and refining exercise scheduling. The proposed fiscal year 2021 funding levels build on our prior year investments and effectively deter Russian aggression in Europe and maintain our EDI-funded rotational force presence across the eastern flank of NATO. Our European Allies and partners have steadily increased their defense spending, providing a more effective collective deterrent to Russian aggression, and they have more equally distributed the burden of European defense among all Allies and partners.

94. Senator BLUMENTHAL. Secretary Esper, how should our allies in Europe and elsewhere interpret this reduction in security cooperation funding?

Secretary ESPER. Our commitment to the North Atlantic Treaty Organization (NATO) remains ironclad, and our Allies in Europe recognize this in our continued collective efforts to strengthen the Alliance. Our European Allies and partners do not see any decrease in United States commitment to Europe and NATO. Instead, Allies see our continued extensive security cooperation activities with them as a vital component of the reestablishment of a robust United States presence in Europe.

95. Senator BLUMENTHAL. Secretary Esper, how will these proposed cuts to security cooperation impact the Department of Defense's ability to "strengthen allies and attract new partners," as you discuss in your posture statement?

Secretary ESPER. The new National Defense Strategy-Implementation account provides the Department greater flexibility in prioritizing and executing programs in accordance with National Defense Strategy objectives to build partner capacity sustainably and holistically. The Department prioritizes these initiatives based on a strategy-driven process to ensure security cooperation plays a critical role in advancing the National Defense Strategy's emphasis on strengthening alliances and attracting new partners.

96. Senator BLUMENTHAL. General Milley, how does security cooperation—including joint exercises, subject matter exchanges, and other military-to-military engagements—contribute to a strong and peaceful Europe?

General MILLEY. Security Cooperation activities build capability, capacity, and interoperability with our European allies that ensure we can fight and win against aggression in Europe. This is clearly demonstrated by the regular joint exercises that we conduct throughout Europe. These highly visible exercises deter our adversaries while simultaneously assuring our most vulnerable allies. Our training with allies and partners builds the mutual understanding and skills needed for us to work together, and grows our collective defense capacity, increasing the deterrent effect. The training effects are reinforced and institutionalized by our mil-to-mil engagements. These engagements build ties at all levels that establish personal relationships and trust necessary to be successful during a crisis situation. Security Cooperation activities produce real deterrence effects through actual capabilities and assures our allies of our commitment to their security. This creates the foundation of peace and stability in Europe.

QUESTIONS SUBMITTED BY SENATOR MAZIE K. HIRONO

MISSILE DEFENSE

97. Senator HIRONO. Secretary Esper, we have established that North Korean long-range ballistic missiles are a threat to the Homeland—of which Hawaii is part of. In spite of 4 years of authorizations and 3 years of appropriations from Congress, and the Department's own 2019 Missile Defense Review, you have zeroed out the Homeland Defense Radar-Hawaii (HDR–H) for fiscal year 2021. The HDR–H contract has been let, the radar is being built. Fiscal year 2020 funds are currently being obligated for this radar. There are no known operational impediments to the Missile Defense Agency continuing their process to site the HDR–H. They have several sites where they will conduct environmental impact statements as part of that process. I need a commitment from you that you will not put a stoppage on the fiscal year 2020 funding for the HDR–H or terminate that contract.

Secretary ESPER. The Department is committed to continuing work to the extent possible on Homeland Defense Radar-Hawaii (HDR–H) efforts with Fiscal Year 2020 funding. As I committed during my testimony, the Department's priority has been to identify a suitable site upon which to build the HDR–H, and phasing the program in line with construction at that site. To this end, in October 2019, the Missile Defense Agency (MDA) revisited the viability of fielding the HDR on Department of Defense property at the Pacific Missile Range Facility (PMRF) on Kauai, Hawaii, at locations not previously explored in the HDR–H siting analysis due to potential operational impacts. In January 2020, MDA conducted additional siting studies at PMRF and is in the process of analyzing data collected. MDA anticipates making a site viability determination in third quarter fiscal year 2020, which will allow for the official inclusion of PMRF into the Environmental Impact Statement. Initial analysis indicates potential viability of at least one site on PMRF. MDA is continuing siting analysis, advanced planning surveys and environmental efforts to determine a suitable site, and to minimize further delay if HDR–H is funded beyond fiscal year 2020.

UNITED NATIONS CONVENTION ON THE LAW OF THE SEA

98. Senator HIRONO. Secretary Esper, when you were here for your confirmation hearing last July, I asked you about your advocacy for accession to the Law of the Sea Convention in regards to emerging maritime disputes such as the South China Sea and in the Arctic. You advised that you would review the issue. Now that you've been the Secretary for 8 months, do you support United States accession to the United Nations Convention on the Law of the Sea?

Secretary ESPER. The United States does not have to be a party to the Convention on the Law of the Sea to recognize its provisions and exercise the rights and freedoms under the Convention. Since President Reagan's 1983 Statement on Ocean's Policy, the United States has recognized that the navigation and overflight provisions of the Convention reflect customary international law. The Department's commitment to the principles of freedom of navigation and overflight is evident in our practices. The Department's operations respect international law in all of its operations, including Freedom of Navigation Operations (FONOPs), and we expect others to do the same.

DECISION REGARDING OPERATIONAL CONTROL OF C–17 AIRCRAFT

99. Senator HIRONO. General Milley, in the Air Force posture hearing on Tuesday, the Air Force Chief of Staff mentioned that the decision for all C–17 strategic airlift assets be assigned operational control to TRANSCOM instead of to the COCOMs. What was the rationale behind that decision?

General MILLEY. C–17s are a global strategic mobility asset and COCOMs have agreed that CDRUSTRANSCOM is in the best position to most effectively control the employment of these assets in support of global priorities. Accordingly, TRANSCOM's Operational Control (OPCON) of C–17s allows agile support to all COCOMs and allows them to perform their mission while allowing TRANSCOM to support global requirements.

100. Senator HIRONO. General Milley, why weren't affected Congressional offices notified?

General MILLEY. It is within the Secretary of Defense's purview to realign the Operational Control (OPCON) of forces from one combatant command to another. It should also be noted that in this instance, the change had no impact on force structure or basing, matters which often do require Congressional notification.

MILITARY FAMILY HOUSING

101. Senator HIRONO. Secretary Esper and General Milley, the Military Family Housing Tenants Bill of Rights was directed in the Fiscal Year 2020 NDAA. While I laud your efforts to put something in place, the bill of rights you signed left out three of the required items: the right to dispute resolution, the ability to withhold rent, and access to a home's maintenance history. Can you explain the rationale and how you intend to fix the bill of rights as directed by this Congress?

Secretary ESPER. The Fiscal Year 2020 National Defense Authorization Act set out 18 rights of Military Housing Privatization Initiative (MHPI) tenants, 15 of which can be implemented without additional guidance or with development of policies, processes, and procedures within the control of the Department of Defense. The three remaining rights have financial implications and, therefore, can only be implemented if the MHPI project landlords and their third party lenders agree to modify existing project legal agreements. The Department is working with the project landlords on an approach to expedite provision of these remaining rights. For the short term, the Department is leaning forward to put in place interim procedures to provide the maximum benefit of these rights to tenants that we can now while working to finalize necessary changes to the project legal agreements. If we encounter a challenge that requires assistance from Congress, we will engage with the appropriate committees quickly.

General MILLEY. The Fiscal Year 2020 NDAA set out 18 rights of Military Housing Privatization Initiative (MHPI) tenants, 15 of which can be implemented without additional guidance or with development of policies, processes, and procedures within the control of DOD. The three remaining rights have financial implications and, therefore, can only be implemented if the MHPI project landlords and their third-party lenders agree to modify existing project legal agreements. The Department is working with the project landlords on an approach to expedite provision of these remaining rights. For the short term, the Department is leaning forward to put in place interim procedures to provide the maximum benefit of these rights to tenants now, while working to finalize necessary changes to the project legal agreements. If we encounter a challenge that requires assistance from Congress, we will engage with the appropriate committees quickly.

THE CLOSE COMBAT LETHALITY TASK FORCE

102. Senator HIRONO. Secretary Esper and General Milley, in March 2018, then-Secretary of Defense Mattis established the Close Combat Lethality Task Force (CCLTF) in an effort to make combat units more lethal. He had concerns about the erosion of close combat capability relative to threats identified in the NDS. The

Task Force recently fielded some new cutting edge capability in regards to training and night vision for Special Operations Forces and Army soldiers. How will the CCLTF remain a priority to you and an asset to the entire force if they report to the Secretary of the Army vice the Secretary of Defense as they support the NDS?

Secretary ESPER. I am focused on implementing the National Defense Strategy and efforts like the Close Combat Lethality Task Force are a key part of ensuring our Nation's readiness now and in the future. That is why I have asked the Secretary of the Army to explore how this successful endeavor can be improved and institutionalized. Our Army provides the majority of the close combat forces and in order to prevent duplicate efforts across the Department, I decided the Department of the Army would be the lead in formalizing the critical mission of the task force.

General MILLEY. As the Secretary has said, the CCLTF is not going away. The Secretary of the Army is drafting a plan to institutionalize the CCLTF for the department.

The Secretary of the Army has established and is leading a joint planning team with the USMC and SOCOM to ensure the work of CCLTF continues to serve the close combat formations, as it always has in the past.

COMPACT OF FREE ASSOCIATION RENEWAL

103. Senator HIRONO. Secretary Esper and General Milley, in testimony provided to the Senate Energy and Natural Resources Committee, DOD testified that the Department strongly supports extending Compact financial assistance to the Freely Associated States, and that failing to do so could weaken the United States' position in the Indo-Pacific. I share the Department's assessment, and want to work with DOD to ensure that Compact assistance grants are extended past 2023. What impacts on national security does the Department foresee if Compact financial assistance to the Freely Associated States is not extended beyond 2023?

Secretary ESPER. Failure to extend the economic provisions of the Compact Agreements has the potential to create an opening for China and other malign actors to exploit vulnerable Pacific island countries by replacing the economic and social support the United States is currently providing. The Compact States provide a strategic and logistical highway to the Pacific. If lapsed, China could seize the opportunity to bifurcate our sea lines of communication in the South Pacific, further weakening our national security interests. Without the financial assistance provided to these countries through the Compacts, the United States could face a requirement to reduce its footprint due to reduced access in places like Kwajalein Atoll or Palau. These reductions in capabilities would reduce our interoperability with allies and partners and directly impact operational plans and strategies.

General MILLEY. Extending the economic provisions of the Compacts of Free Association (COFA) remain a priority. Extension demonstrates U.S. commitment to the Indo-Pacific region and assures the Department of Defense maintains access to the land, waterways, and airspace of the Freely Associated States. The Freely Associated States provide a strategic and logistical highway to the Indo-Pacific, vital in the event of a significant military engagement in the region. While the immigration, defense, and foreign affairs provisions remain as long as the COFAs are in force, the economic provisions are due to expire in 2023 for the Republic of the Marshall Islands and the Federation States of Micronesia and 2024 for Palau. If the economic provisions expire, there is an opportunity for China, and other malign actors, to exploit vulnerable Pacific Island Countries. China could extend financial support and gain influence in absence of United States assistance. This would allow the PRC to divide United States sea lines of communication in the South Pacific, weakening our national security interests. Failure to extend the COFAs may require the United States to reduce its footprint by reducing access in places like Kwajalein Atoll, the location of our Ronald Reagan Test Center, or the planned construction of the Tactical Multi-Mission Over-the-Horizon Radar (TACMOR), which provides a High Frequency (HF) radar system for persistent, long-range, detect and track capability of air and surface targets. These two facilities are key to our military shaping in the Pacific. Additionally, if lapsed, the U.S. could lose its right to exclude foreign militaries' access to the Freely Associated States, severely impacting our Nation's national security.

104. Senator HIRONO. Secretary Esper, what steps has DOD taken to date to work with the Department of State and the Department of the Interior, and the FAS to renew economic assistance under the Compacts of Free Association?

Secretary ESPER. The Department of Defense (DOD) is currently working with the National Security Council staff and interagency counterparts to finalize the negotiating instructions to extend the economic provisions of the Compacts of Free Asso-

ciation. DOD representatives from the offices of the Undersecretary of Defense for Policy and Undersecretary of Defense (Comptroller) have met with multiple offices in the Department of State and the three U.S. Ambassadors to the Freely Associated States to discuss renewal of economic assistance.

105. Senator HIRONO. Secretary Esper, has DOD and its interagency partners set a timeline for Compact renewal prior to the end of Compact economic assistance?

Secretary ESPER. The economic provisions for the Republic of the Marshall Islands and the Federated States of Micronesia expire in 2023. The economic provisions for the Republic of Palau expire in 2024. The National Security Council staff has a goal of completing negotiations as soon as possible. We recognize the important role that Congress will play in this process and welcome the opportunity to work with Congress to secure long-term U.S. strategic interests in this vital region.

106. Senator HIRONO. Secretary Esper, what additional steps need to be taken by DOD and its interagency partners before Congress can consider enacting legislation that would implement the renewal of the Compacts?

Secretary ESPER. The Department of Defense is involved in the National Security Council staff's coordinated effort on this issue, along with the Department of the Interior, the Office of Management and the Budget, and the Department of State. Next steps are to finalize negotiating instructions so that the U.S. lead negotiator can begin negotiations with the Freely Associated States before taking the final agreement to Congress for vote and final passage.

QUESTIONS SUBMITTED BY SENATOR MARTIN HEINRICH

SPACE FORCE ORGANIZATION

107. Senator HEINRICH. Secretary Esper, Space Force Vice-Commander, Lt. Gen. David Thompson, recently indicated that the U.S. Space Force will propose the consolidation of current space acquisition organizations under one entity called Space Systems Command. General Goldfein agreed emphatically that the Space Rapid Capabilities Office should remain an independent organization during yesterday's Air Force posture hearing. What consequences would such a consolidation have on the organization's ability to adapt and innovate?

Secretary ESPER. The Department is considering all options to streamline the Space Force's acquisition system, but we have not proposed legislative changes to the Space Rapid Capabilities Office (SpRCO) at this time. The Space Rapid Capabilities Office (SpRCO) was established in statute by Congress. Consistent with current law, the SpRCO reports to the Commander, U.S. Space Force (formerly Air Force Space Command). In the Fiscal Year 2020 National Defense Authorization Act, Congress established the Assistant Secretary of the Air Force for Space Acquisition and Integration who will oversee and direct the SpRCO, along with the Space and Missile Systems Center (SMC) and the Space Development Agency (SDA). We expect this change will go far to improve the integration and synchronization of space programs.

TECHNOLOGY TRANSFER

108. Senator HEINRICH. Secretary Esper, I was encouraged to see the types of investments the Fiscal Year 2021 President's Budget proposed in technologies of the future like Directed Energy, hypersonics, and Artificial Intelligence. As you know, investments like these are only of use to our servicemembers in the field if we are able to transition them out of the laboratories. What kind of investments does the budget make in our Nation's test and range infrastructure to speed up the tech transition process?

Secretary ESPER. It is essential that our training capabilities and our ranges support live, virtual and constructive (LVC) training with these new systems. For example, in fiscal year 2021, the Department has requested funding for spectrum awareness tools, prototyped an advanced air combat training system, fielded advanced electronic warfare replicators, and developed an automated spectrum access management tool largely funded by the Spectrum Access Research and Development Program. Additionally, the Department plans to field a 5G capability to select locations providing a virtual reality capability targeting the training audience. Key live ranges are investing in communication networks and security protocols to digitally connect ranges providing a larger geographic footprint for hypersonic platforms and extended range weapons. The Department is developing a training infrastructure strategy to identify current training gaps with corrective actions that will be re-

flected in future budgets. fiscal year 2021's investments coupled with the training strategy provides the baseline to incorporate new technologies into training.

QUESTIONS SUBMITTED BY SENATOR ELIZABETH WARREN

CORONAVIRUS

109. Senator WARREN. Secretary Esper, in response to the coronavirus, you have articulated three priorities: to protect our forces and their families, to safeguard our mission capabilities, and to support the efforts across federal agencies. You have also stated that NORTHCOM is the global integrator for all DOD efforts to combat the disease. I understand that you have indicated that DOD civilian and military leadership, including all the service secretaries and COCOM commanders, have worked together to ensure the Department is ready for short- and long-term scenarios, as well as domestic and international situations. A March 3, 2020, Star and Stripes report indicates that "[a]ll Army recruits entering basic training will be screen for coronavirus, a precaution to curtail the spread of the illness[.]" A March 5, 2020, CNN report indicates that "the coronavirus is now a particular concern for the US Navy, Air Force and Army who have implemented new screening procedures as the virus spreads." That report also indicated that the "Navy [. . .] began screening for the coronavirus in the initial processing of recruits in January" and that the "Air Force is also screening recruits when they leave processing centers before they enter training." At this time, can you confirm that recruits for each of the military services are being screened for the coronavirus, and if not, do you believe it is appropriate to conduct such screening?

Secretary ESPER. Yes, the Military Departments are "screening" recruits via non-test based procedures or other methods to reduce the potential that COVID–19 infected recruits will enter the training pipeline. Surveillance testing is being examined and refined as a test-based method in conjunction with social distancing, restriction of movement, and other procedures to achieve this end.

110. Senator WARREN. Secretary Esper, the most recent unclassified Worldwide Threat Assessment by the Office of the Director of National Intelligence (ODNI), published in January 2019, observed, "The growing proximity of humans and animals has increased the risk of disease transmission. The number of outbreaks has increased in part because pathogens originally found in animals have spread to human populations." The DNI also assessed that "the United States and the world will remain vulnerable to the next flu pandemic or large-scale outbreak of a contagious disease that could lead to massive rates of death and disability, severely affect the world economy, strain international resources, and increase calls on the United States for support." Have you performed an assessment of the potential adverse impact to the readiness of U.S. forces in the event of the coronavirus outbreak being declared a pandemic by the World Health Organization (WHO), and if not, do you plan to conduct such an assessment?

Secretary ESPER. The Department of Defense (DOD) continually monitors and assesses the readiness of our military forces and their ability to support the priorities outlined in the National Defense Strategy across multiple lines of effort, to include personnel, training, equipment, and supply. Since the coronavirus outbreak was declared a pandemic by the World Health Organization, DOD has focused on providing military manpower and equipment—both capacity and capability—to state and local authorities to help combat COVID–19.

The Department's participation and leadership in the Nation's efforts ensure that we are apprised of the most current information and able to adjust to emergent requirements. I have given the Department three priorities for our focused response to the pandemic: protecting our people and their families, maintaining military readiness, and supporting the whole-of-government interagency response. To do this, we must ensure that we take prudent measures to limit COVID–19's spread, while also ensuring the men and women of our All-Volunteer Force are trained and ready to defend this Nation.

111. Senator WARREN. Secretary Esper, a March 5, 2020, Stars and Stripes report indicates, "[Department of Defense Education Activity-Europe] has canceled the first two weeks of its upcoming spring sports season due to concerns over the spread of the coronavirus." I understand that DODEA Schools in Korea, Italy, and Bahrain have initiated temporary closings. According to DODEA's website, "DODEA operates 163 schools in 8 Districts located in 11 countries, 7 states, and 2 territories across 10 time zones." On its coronavirus website, DODEA says, "[o]ur school nurses and

staff will be working with students to promote good hygiene and to keep everyone healthy and safe. We also work with our custodial providers to ensure our schools receive thorough cleaning every day. Parents are asked for help in reinforcing healthy practices at home with children." Consistent with your three priorities in response to the coronavirus, what steps are specific DODEA schools are taking to protect DODEA students, personnel, and their families from the coronavirus?

Secretary ESPER. The Department of Defense Educational Activity (DODEA) is an integral part of our mission. Quality education is a key factor in quality of life and servicemember retention of the most talented members of the force. At this time, all DODEA schools are closed as a result of Health Protection conditions on the installations DODEA serves, but the mission of DODEA continues. I am proud to say that all schools are providing continuity of education in an online environment. As teachers around the world continue their work online, our facilities and maintenance personnel continue to maintain our schools and DODEA will continue to work with Commands to ensure that when conditions allow it, schools are ready again to be central learning environments for our communities.

112. Senator WARREN. Secretary Esper, what criteria are DODEA using to make decisions regarding school closures and activity cancellations in response to the coronavirus?

Secretary ESPER. The Department of Defense Educational Activity (DODEA) has worked closely with installation commanders and public health officials as well as our host nation partners to make coordinated decisions about activity cancellations. These decisions have been based on a combination of Health Protection conditions on the base, host nation public health guidance and restrictions, and information about any cases in the community.

113. Senator WARREN. Secretary Esper, what steps have you taken or do you plan to take to ensure that disruptions do not negatively affect students' academic progress?

Secretary ESPER. From Daegu, South Korea, which was the first Department of Defense Educational Activity (DODEA) school to close on February 20th, to Guantanamo Bay Cuba, which closed on March 25th, all DODEA schools have had continuity of education plans in place focused on a virtual learning platform within 4 school days of initial closure. DODEA has signed out thousands of computers and procured and distributed hundreds of internet hotspots for students needing connectivity. Students meet at least twice weekly with their teachers, and teachers are hosting office hours and providing assignments to students. Students with disabilities continue to be served in this model in the most comprehensive way possible, and DODEA has taken special consideration to ensure families are able to remain engaged. "Counselor Watch" programs are designed to engage with families whose students are not accessing learning materials or are otherwise struggling in this new structure. DODEA teachers and leaders in the field continue to analyze and adjust the model to ensure student needs are met based on feedback from the community.

114. Senator WARREN. Secretary Esper, what effect, if any, has the coronavirus had on DOD child care centers, and what is DOD's plan to address situations in which such facilities must close due to concern about the outbreak?

Secretary ESPER. The impact of coronavirus on Department of Defense child care programs is very fluid. We have experienced a number of our facilities being closed, especially at our OCONUS locations. Most of our child care programs that are open are supporting mission essential personnel only. Installation commanders, working with local public health professionals and senior leadership, have the authority to make these decisions based on the local situation. Facilities will reopen as local officials feel the timing is right to do so.

115. Senator WARREN. Secretary Esper, in the event that a deployable vaccine to the coronavirus is developed, can you guarantee that all DOD military, DOD civilian personnel, and their families will receive a vaccination for free?

Secretary ESPER. If a vaccine for COVID–19 is approved by the Secretary of Health and Human Services, the vaccination will be considered a preventive service and covered at no co-pay or cost-sharing for Department of Defense (DOD) beneficiaries who use network providers and network pharmacies. Health coverage for civilians that are not eligible DOD beneficiaries is available through the Federal Employee Health Benefits Program, which has different governing statutes, regulations, policies, and contracts.

116. Senator WARREN. Secretary Esper, according to a March 3, 2020, Politico report, the Overseas Federation of Teachers says that teachers at DODEA schools in Italy and Bahrain that closed due to coronavirus concerns have nonetheless been required to report to school to supervise students' online learning. I am concerned that this puts educators' health and safety at risk and creates significant childcare challenges for their families. In areas where DODEA schools are closed, will you commit to allowing teachers and other school personnel to telework in order to protect their health and safety?

Secretary ESPER. The Department of Defense Educational Activity (DODEA) prioritizes the health and safety of all employees. In the beginning of the continuity operations model in most schools, it was important to provide training and for teachers to be able to work together in small groups to engage in new online learning platforms. At that time, all civilian employees were still reporting to work on installations.

117. Senator WARREN. Secretary Esper, have DODEA officials sought input from unions representing DODEA teachers and school staff on decisions related to closures, telework, and working conditions? Please describe which unions DODEA has consulted, the nature of DODEA outreach, and the specific feedback obtained from these stakeholders.

Secretary ESPER. At the headquarters-level, all unions are being sent government/Department-wide COVID–19 guidance from the Department of Defense, Office of Personnel Management, Centers for Disease Control and Prevention, etc. for informational purposes. The Department of Defense Educational Activity established a headquarters labor meeting to better keep national level union officials informed about component-level responses and policy development regarding operational and personnel decisions and to allow them to comment on actions taken and planned. In this regard the following unions were invited to participate in component-level meetings: Federal Education Association (FEA); Federal Education Association-Stateside Region (FEASR); Overseas Federation of Teachers (OFT); Antilles Consolidated Education Association (ACEA); American Federation of Government Employees, Local 1770; American Federation of Government Employees-Consolidated; and National Federation of Federal Employees (NFFE). By way of specific feedback: FEA and OFT have submitted questions concerning the application of the Authorized Departure. At the Regional level and District levels, the unions have been very active in working with their Management counterparts (Directors for Student Excellence (DSEs) and Superintendents) to make and sustain the transition to the digital teaching platform. They have provided invaluable feedback from teachers and helped in communicating Management decisions to teachers. FEASR met with the DSEs to deliver a list of issues from teachers whose resolutions were intended to enhance mission delivery.

TRAUMATIC BRAIN INJURY

118. Senator WARREN. Secretary Esper, based on public reporting, there appears to have been significant difficulties encountered by DOD personnel tasked with efficiently assessing servicemembers who were exposed to blast during the Iranian missile strike on Al Assad air base on January 8, 2020, for potential traumatic brain injuries. Why is the Department not broadly leveraging technologies that quantitatively measure and record blast overpressure exposures?

Secretary ESPER. The Department is leveraging technology as much as possible to assist in evaluating Service members who may be involved in potentially concussive events. We are committed to further implementing our Comprehensive Strategy for Warfighter Brain Health which has numerous components that support a better understanding of brain exposures, to include blast overpressure, as well as monitoring and mitigating such exposures. As technology has evolved, we are working towards a blast monitoring program that is able to interface with our information technology systems in a seamless and secure fashion. The outcome will be a blast monitoring system that utilizes accurate data to record personnel level exposures and guides decisions aimed to reduce the effects of blast exposures.

119. Senator WARREN. Secretary Esper, the Committee understands that such technologies have been fielded successfully in the combat environment as early as 2011 through the Defense Advanced Research Projects Agency. In your opinion, are there strategies that Congress and this Committee can undertake to ensure that these technologies are more rapidly fielded?

Secretary ESPER. The Defense Advanced Research Projects Agency (DARPA) does not need any additional authorities at this time to field new technologies. If, in the

future, DARPA becomes in need of any new authorities, the Department will engage and discuss with the Congress and the Senate Armed Services Committee on the best way forward.

120. Senator WARREN. Secretary Esper, section 734 of the Fiscal Year 2018 NDAA mandated blast overpressure monitoring for servicemembers at risk of these exposures in training and operations. Can you provide an update on the progress of this congressionally mandated initiative, including the number and types of units/personnel that are bring monitoring by the 734 program, the amount and type of data collected, and any relevant findings related to blast overpressure exposure rates to date?

Secretary ESPER. We have incorporated the new legislation in the National Defense Authorization Act (NDAA) for Fiscal Year 2020; section 717 and section 742 into our longitudinal medical studies of blast overpressure in high overpressure weapon systems, which focuses on documenting blast overpressure data into a Service member's record as well as being able to retrieve that data when being evaluated for a potentially concussive event. There have been 58 units representing all the Services, outfitted with wearable blast gauges that are part of a pilot research surveillance project called CONQUER (COmbat in TraiNing QUerable Exposure Repository). The types of units include but are not limited to: special operation forces, snipers, breachers, explosive ordnance disposal (EOD) personnel and infantry and artillery units. We have been able to collect blast overpressure information for shoulder mounted weapon systems, .50-caliber weapons, indirect fire systems and multiple breaching charges. We are working towards being able to provide mitigation strategies through analysis of this data. Additionally we are studying the health and performance effects from blast overpressure. We will translate this information as quickly as possible into our safety and training platforms so that we can maximize the readiness and effectiveness of our Warfighters.

WHITE SUPREMACY

121. Senator WARREN. Secretary Esper, section 530 of the Fiscal Year 2020 NDAA requires the Secretary of Defense to "study the feasibility of, in background investigations and security and suitability screenings of individuals who seek to enlist in the Armed Forces—(1) screening for extremist and gang-related activity; and (2) using the following resources of the Federal Bureau of Investigation: (A) The Tattoo and Graffiti Identification Program and (B) The National Gang Intelligence Center." By no later than June 17, 2020, the Secretary must submit an unclassified report to Congress with his conclusions on this study. However, there is no explicit requirement that DOD include white supremacy extremism in this study. Given the threat posed by white supremacy extremism to our military and our country, do you believe that the Department should include white supremacy extremism in its upcoming study on its process for screening recruits to the Armed Forces pursuant to the Fiscal Year 2020 NDAA?

Secretary ESPER. White supremacy extremism is an element of domestic extremism and will be included in our report.

QUESTIONS SUBMITTED BY SENATOR DOUG JONES

SPACE COMMAND HEADQUARTERS

122. Senator JONES. Secretary Esper, please set forth the new site selection criteria for Space Command headquarters and explain how those criteria differ from the previous criteria.

Secretary ESPER. The Department of the Air Force is currently working to finalize screening and evaluation criteria to expand the number of cities and installations analyzed. The Department of the Air Force will consult with the Defense Committees on these criteria once I have had the opportunity to review them.

123. Senator JONES. Secretary Esper, please explain why any criteria have been changed in the site selection process for Space Command.

Secretary ESPER. I have asked the Department of the Air Force to take a different approach by breaking down the selection criteria into its foundational components and conducting a more holistic and iterative selection process that considers the concurrent establishment of the U.S. Space Force.

124. Senator JONES. Secretary Esper, please explain the problems with transparency you identified in your hearing testimony which led to your decision to reopen the site selection process for Space Command.

Secretary ESPER. Based upon feedback I received from members of Congress and my review of the process, the screening criteria were insufficient and resulted in a limited number of eligible locations without the data to support the exclusion of many others. Also, the initial criteria had not considered the impacts caused by the establishment of U.S. Space Force. Therefore, I asked the Department of the Air Force to take a different approach.

125. Senator JONES. Secretary Esper, please explain in detail the new process and timeline for the Space Command headquarters site selection.

Secretary ESPER. We will use a revised basing process that leverages best practices from the Department of the Air Force strategic basing process and the Army's recent Futures Command stationing action. This will expand the number of locations under consideration for the U.S. Space Command, and give eligible installations and communities an opportunity to provide input based on approved requirements and evaluation criteria. The Department of the Air Force will consult with the Defense Committees on their schedule and revised evaluation and screening criteria this spring. I anticipate a final decision sometime next year.

126. Senator JONES. Secretary Esper, you testified that the new process "would allow all members to nominate locations" for the headquarters of Space Command. Is that a change to the normal process for basing decisions?

Secretary ESPER. This is a modification to the Department of the Air Force basing process. Since U.S. Space Command is a combatant command with unique and complex warfighting requirements, I have asked the Department of the Air Force to revise its process for this action in a way that leverages best practices from the Department of the Air Force strategic basing process and the Army's recent Futures Command stationing action.

127. Senator JONES. Secretary Esper, did the sites previously identified as finalists for Space Command headquarters not satisfy the basing criteria and if so, in what ways?

Secretary ESPER. The six original candidate locations that the Secretary of the Air Force approved in May of 2019 met all basing criteria laid out in the original basing decision.

REPORT REGARDING CONDITION OF ROTC FACILITIES AT HBCUS

128. Senator JONES. Secretary Esper, what is the status of the report required by the Fiscal Year 2020 NDAA regarding the current condition of facilities used by units of the Senior Reserve Officers' Training Corps at minority-serving institutions and when can Congress expect the report?

Secretary ESPER. Facilities used for Reserve Officer Training Corps (ROTC) purposes are all fully owned and operated by the universities and colleges that host our programs. Facility maintenance is managed by the host institution, as laid out in the Memorandum of Understanding each school signs when an ROTC program is established, and conditions vary greatly depending on multiple factors. The Department is exploring alternative means to meet this congressional reporting requirement because it does not have the authority to compel historically black colleges and universities to provide facility reports. As soon as a viable information source is determined, we will coordinate the data collection and transmit the report.

AIR FORCE PILOT ACADEMY

129. Senator JONES. Secretary Esper, is DOD committed to continuing and growing the Air Force's Pilot Academy program for JROTC students?

Secretary ESPER. Yes, the Air Force remains committed in Fiscal Year 2021 to providing funding for 400 scholarships which include 300 Air Force Junior Reserve Officer Training Corps (+AFJROTC) cadets, 20 Air Force Reserve Officer Training Corps, 20 Civil Air Patrol, and for the first time, 10 U.S. Air Force Academy cadets and 50 young people from affinity groups. The affinity group students will compete for slots through a collaborative effort between AFJROTC, Air Force Recruiting Service and several nation-wide "affinity" groups such as Women in Aviation (WIA) and the Organization of Black Airline Pilots (OBAP). In addition, the Flight Academy is included in Program Objective Memorandum 22 to ensure long-term stability and growth of this highly successful program. To date, 217 out of 270 (80 percent success rate) have earned their Private Pilot Certificate and all have earned College

Credit. This program specifically targets the strategic imperative of a diverse fighting force directly linked to the National Defense Strategy.

REPORT REGARDING DOD CHILD DEVELOPMENT CENTERS

130. Senator JONES. Secretary Esper, what is the status of the report the Fiscal Year 2020 NDAA required to be provided by March 1, 2020, regarding child development centers and when can Congress expect that report?

Secretary ESPER. An interim report was provided in February of this year, indicating that a final, comprehensive report would be submitted by June 1, 2020. The final report combines nine separate child care reports requested by the Congressional Defense and Appropriations committees.

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2021 AND THE FUTURE YEARS DEFENSE PROGRAM

THURSDAY, MARCH 5, 2020

UNITED STATES SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

NAVY POSTURE

The Committee met, pursuant to notice, at 9:32 a.m. in Room SD–G50, Dirksen Senate Office Building, Senator James M. Inhofe (chairman of the Committee) presiding.

Committee Members present: Senators Inhofe, Wicker, Fischer, Cotton, Rounds, Ernst, Tillis, Sullivan, Perdue, McSally, Scott, Hawley, Reed, Shaheen, Gillibrand, Blumenthal, Hirono, Kaine, King, Heinrich, Peters, Duckworth, and Jones.

OPENING STATEMENT OF SENATOR JAMES M. INHOFE

Chairman INHOFE. Our meeting will come to order.

Let me apologize to my fellow Senators. You know, I had just gotten back from Iraq, Erbil, Uganda, Rwanda, Ethiopia, Mauritania, felt fine, but I hit the ground here and I got non-contagious bronchitis. So anyway, it is much better today than it was yesterday. Much better, much better.

The Committee today will receive testimony on the posture of the Department of the Navy and the fiscal year 2021.

We welcome our guests today: the Acting Secretary of the Navy, Tom Modly; Admiral Gilday, Chief of Naval Operations; and David Berger, Commandant of the Navy. Thanks for coming. Thanks for your long-term service. We appreciate you very much.

With the alarming speed of modernization of both conventional and nuclear forces, China and Russia present a credible threat. I always make reference to this because when we put this together, this was equal Democrats and Republicans, people who no one could question their capabilities, and so we have been trying to follow this. So I will make several references to this, as will other members. The major thing there is that China and Russia have passed us in areas that we did not want to be passed.

I am encouraged by some of our witnesses' public statements and guidance and their subordinates related to reorienting to great power competition.

Thanks to President Trump's leadership, we reset defense spending in 2017, and we are beginning to rebuild the military after many years of neglect. But the hole is deep and the work has just begun.

I commend our witnesses for submitting a budget that continues to trend the funding in the readiness accounts that support today's Navy and Marine Corps. However, it is clear to me that the Department of the Navy's proposed budget is only sufficient to support a fleet of about 300 ships. That is clearly inadequate to the 355 as we find in the manual I just referred to.

Along these lines, I must also point out that the Department has yet to submit a 30-year shipbuilding plan, which by law was required to be submitted to Congress with the budget last month. The absence of this plan makes it impossible to understand how the Department plans to reach its goal and the national policy of a 355-ship Navy. We have got to be smart and not hasty as we modernize our military. I urge each of you to take a long view. Recent history should be our guide because without better acquisition performance, we will fall behind or further behind, I should say, China and Russia.

Senator Reed?

STATEMENT OF SENATOR JACK REED

Senator REED. Well, thank you very much, Mr. Chairman. I join you in welcoming Acting Secretary Modly and Admiral Gilday, and General Berger to the Committee this morning to testify on the plans and programs of the Department of the Navy in our review of the fiscal year 2021 authorization request. I particularly want to welcome each of you to your first posture hearing before the Committee. We are grateful for your service, for the service of the men and women under your command, and for the support of all the Navy and Marine Corps families. So please express to these wonderful Americans.

As the leaders of the Navy and Marine Corps, you face significant challenges as you strive to balance the need to support ongoing operations and sustain readiness with the need to modernize and keep the technological edge so critical to military success.

In addition, because significant levels of funding are being transferred to build the wall on the southern border, you will have fewer resources for modernization.

The Department of the Navy faces serious readiness problems caused by deferred maintenance, reduced steaming and flying hours, and canceled training and deployments. We remember too well the collisions of the *McCain* and *Fitzgerald* and the loss of life that resulted. I will be interested in hearing about the progress the Navy is making in continuing to implement changes that will ensure such incidents will not happen again.

All areas of our naval forces are maintaining an extremely high operations tempo. Demand is overwhelming for attack submarines, air and missile defense cruisers, destroyers, and strike fighter inventories. The Navy is now in its eighth year of operating with fewer than the legally required 11 aircraft carriers. The *Ford* is listed in the Navy inventory, but that carrier is more than 5 years behind schedule and will not be ready to deploy for many, many

months. In addition, during the next decade, the Navy will need to buy the new *Columbia*-class ballistic missile submarines to replace the *Ohio*-class submarines. This is an extremely expensive undertaking that is on a very tight schedule.

The Navy is using authorities such as multiyear procurement authority to conduct modernization programs more efficiently. Congress has approved multiyear procurement authority for both attack submarines and Aegis destroyers. These vessels represent the largest inventory shortfall compared to the goals in the 2016 Force Structure Assessment, with the actual Navy fleet 15 boats below the attack submarine goal and 14 destroyers below the goal for large surface combatants.

The Navy just recently signed the multiyear procurement contract for the block 5 of the *Virginia*-class attack submarine. This contract provides for buying nine boats of the 5-year period, fiscal year 2019 through fiscal year 2023. The contract also provides an option to buy a 10th boat if the Navy has the resources and the contractors improve performance on the program. Yet, the fiscal year 2021 budget, which had the best opportunity for funding the 10th boat, did not exercise the option. I am concerned that the window of opportunity for buying a 10th boat could close if funds are not provided to the Navy this year to allow them that opportunity. I see that the number one item on the CNO's [Chief of Naval Operations] unfunded priority list is funding for the second *Virginia*-class submarine in fiscal year 2021, and I would obviously be interested in your thoughts on this issue.

Modernizing ground vehicles remains a priority for the Marine Corps. The amphibious combat vehicle will provide increased force protection and enhanced lethality to our marines, and it will replace the aging inventory of assault amphibious vehicles. The Marine Corps is also partnering with the Army to develop the joint light tactical vehicle, or JLTV, to replace the Humvee, and they have targeted investments in the high mobility artillery rocket system, HIMARS, in order to provide marines with ground-based indirect fire support. I would welcome an update from our witnesses on how they are balancing the procurement of new systems while upgrading existing platforms to meet current operational needs.

In 2016, Admiral Richardson released a Force Structure Assessment that identified a new force structure goal. We had been promised a new Force Structure Assessment by the end of 2019 that would address implementation of the National Defense Strategy, but that has not arrived. I also understand that the Department has not provided the 30-year shipbuilding plan as required by law. I look forward to hearing when the Department will deliver these important documents.

Again, I want to thank the witnesses for appearing today, and I look forward to their testimony.

Thank you, Mr. Chairman.

Chairman INHOFE. Thank you, Senator Reed.

We have opening statements. Your entire statement will be made a part of the record. We will start with Admiral Gilday. You are recognized.

STATEMENT OF ADMIRAL MICHAEL M. GILDAY, USN, CHIEF OF NAVAL OPERATIONS

Admiral GILDAY. Chairman Inhofe, Ranking Member Reed, distinguished members of the Committee, thank you for the opportunity to appear today with Secretary Modly and General Berger. We are thankful for your enduring support of the Navy and Marine Corps team.

Today, three carrier strike groups and two amphibious ready groups, along with 30 percent of our fleet, are deployed forward around the globe. Our Navy and Marine Corps team needs no permission to operate at sea, and their power does not rest in any single location, but rather in our ability to maneuver anytime and anywhere the seas reach operating across the spectrum of military operations.

Without question, our sailors remain our most important asset. We have taken a hard look at what they need to be successful, the equipment and the training that they need to fight and win, as well as support required to take care of them and their families. Over the past 8 months, we have engaged in a deep examination of these issues.

Our balanced approach in our budget submission this year provides a Navy ready to fight today while committing to the training and the maintenance and the modernization to provide a Navy that is ready to fight tomorrow.

Naval power is critical to implementing the National Defense Strategy, but naval power is not just a function of fleet size. It is a combination of the readiness, the lethality, and the capacity of that fleet. Our number one priority remains the *Columbia*-class ballistic missile submarine. This request also heavily invests in our readiness accounts such as ship and aircraft maintenance and modernization, in manpower, in live virtual constructive training, in steaming days, and in flying hours. It invests in new systems to make our fleet more lethal, including increasing our weapons inventory, filling our magazines, bolstering the range and the speed of those weapons, exploring directed energy weapons, and incorporating new technologies like hypersonics. This request grows our fleet in size, generating sustainable, capable capacity.

Importantly, naval power is not just determined by what we operate and fight with, but how we operate and fight. We are pursuing an integrated approach with the United States Marine Corps in fleet operations and exercises in war games and in experimentation. The net result we believe is integrated American naval power.

I could not ask for a better partner, a better shipmate in this endeavor than General Berger.

Thank you again for your support which has allowed us to make significant gains in readiness and lethality already. It also allows us to answer our nation's call every day. On behalf of your Active Duty, Reserve, and civilian sailors and their families who serve our nation, I thank you, and I look forward to your questions.

[The prepared statement of Secretary Modly, Admiral Gilday, and General Berger follows:]

JOINT PREPARED STATEMENT BY THE HONORABLE THOMAS B. MODLY, ADMIRAL MICHAEL M. GILDAY, AND GENERAL DAVID H. BERGER

Chairman Inhofe, Ranking Member Reed, distinguished Members of the Committee, thank you for your bipartisan efforts to build the strength and readiness of our integrated naval force. As the nation's forward-deployed, global maneuverable team, the entire Department of the Navy (DON)—sailors, marines and civilians—must be ready to respond as a single unit wherever and whenever there is need. We must deliver the personnel, platforms, and operational capability necessary to secure vital sea lanes, stand by our allies, and protect the American people.

Accomplishing this in today's global strategic environment demands planning, clear-eyed assessments, and hard choices. We must design a future integrated naval force structure, advance our intellectual capacity and ethical excellence, and accelerate the digital modernization of our force. That's why this budget prioritizes a strategy-driven, balanced approach to investment, informed by relentless examination of our present capabilities and realities. It builds on prior investments while adjusting fire where necessary to deliver greater efficiency and effectiveness. It sustains the industrial base, and maintains our competitive advantage. Overall, this budget will deliver a more integrated, survivable, and affordable future force.

Our testimony details the combined perspectives of the DON civilian and military leadership. We begin with the challenges we face, followed by our overall strategic vision, then the specific priorities of the Navy and Marine Corps to meet the requirements of this vision and execute the National Defense Strategy (NDS), which remains the guidepost for all of our decisions. The Department of the Navy sustains progress along each of the NDS lines of effort through adequate and timely funding from our partners in Congress. We are proud to work in partnership with this Committee in defense of our nation, and look forward to that work continuing.

THE GLOBAL CHALLENGE

The reemergence of long-term great power competition, the evolving character of that competition, and the accelerating advancements in technology are spurring a period of transformation in the strategic environment, requiring us to adapt our integrated naval force design and operating concepts to new realities. As the National Defense Strategy states, "there can be no complacency—we must make difficult choices and prioritize what is most important."

Thus far this century, terrorist groups and rogue states have dominated our perception of the threat environment. These threats were lethal, but did not pose an existential threat to our national security. China and Russia present a different challenge, as each continues to develop sophisticated military capabilities backed by sizable economies. Their investments in surface, air, and undersea platforms have significantly increased the potential for kinetic conflict, while the leadership of both nations demonstrate increasing contempt for international law and the rules-based order that ensures the prosperity and security of all nations.

China's battle fleet has grown from 262 to 335 surface ships over the last decade, and China's commercial shipbuilding grew over 60 percent year over year from 2007–2017. It continues to take coercive actions against its neighbors and violate international law in the South China Sea. Russia's irresponsible aggression continues on NATO's eastern and northern flanks as well as the Black Sea, the Arabian Gulf, and the broader Indo-Pacific. China also invests heavily in submarines with advanced stealth capabilities and the platforms and infrastructure needed to dominate the emerging Arctic.

Meanwhile, warfare has evolved to new battlefields including cyberspace. China and other dangerous actors like Iran brazenly target the command, control, and communications (C3) systems and logistics networks on which our integrated naval force depends. China's nefarious activity also includes widespread cyber theft of intellectual property and sensitive information targeting our entire government, our allies, and our industry partners throughout the acquisition and supply chain.

As we prepare for the maturing threat of great power competition, we must remain on high alert for the actions of malign regimes such as Iran, and the continual asymmetric threat to our people, allies, and interests posed by non-state actors such as ISIS. In a recent example highlighting the impact of our integrated naval force, 5th Fleet and CTF–51/5 responded to crisis earlier this year by securing the United States Embassy in Baghdad with the Special Purpose Marine Air-Ground Task Force—Crisis Response—Central Command (SPMAGTF–CR–CC) and simultaneously coordinated additional naval support in theater. We stand ever-prepared to respond with every part of our integrated force to instability, terrorist threats, and rogue states throughout the world.

Our integrated naval force also has a critical role in preserving the infrastructure and access that powers the increasingly interconnected and interdependent United States and global economies. Our nation's continued prosperity and economic growth increasingly depend on open and secure access to the sea lanes. Maritime traffic has increased four-fold over the last two decades, with 90 percent of all global goods transiting shipping lanes, including new trade routes opening through the Arctic. Meanwhile, the undersea cables that power the digital economy and the global communications framework represent an overlooked but critical point of vulnerability for

American interests at home and abroad. Overall, the maritime system is more heavily used, more stressed, and more contested than ever before—and it has never been more important.

A dominant naval force is central to the effective execution of the National Defense Strategy in a changing world. But as we address these external concerns, we must also confront our business process challenges. These include a shrinking industrial base and vulnerable supply chain, inefficiencies due to legacy business operations, and antiquated acquisition processes which together result in increased costs and delays for both new development and overall maintenance. Despite the best efforts of this Committee, we must also continually prepare for the challenge posed by funding uncertainty.

Most importantly, we must never forget that our greatest resource is the men and women who wear the uniform, who comprise our civilian workforce, and the families that serve alongside them. We are committed to ensuring our sailors, marines, and civilians are trained and equipped to execute the mission and return home safely, and that their families are provided with the housing, medical attention, and education they need.

As detailed in the following pages, our integrated naval force has made significant strides in addressing the external and internal challenges we face. But we can never be satisfied, and will always press forward with a sense of urgency to deliver the people, the platforms, and the capabilities necessary to protect the American people and our interests around the world.

MEETING THE CHALLENGE WITH AN AGILE INTEGRATED NAVAL FORCE

To meet these challenges, the NDS requires a dominant, agile, accountable, and globally positioned integrated naval force. We will plan, resource, and execute the NDS with specific focus on the following:

Integration

We must transform from our present two-service model into one true expeditionary force in readiness, with the Navy and Marine Corps operating together with integrated planning, design, training, and execution at every echelon and in every domain. This priority has been emphasized in messages to the fleet and planning documents by each member of DON leadership and is a guiding principle for every aspect of our planning and resourcing.

Velocity

Our integrated naval force must maintain the readiness and lethality to respond anywhere at any time. We will achieve this through a global operating model that ensures the continual posture, presence, and readiness of our personnel and platforms. We will dominate the fight to get to the fight, with forward basing, distributed maritime capability, fully integrated logistics, and continual aviation readiness. We also must increase the speed at which we do everything across the Department to match the rapid changes and unpredictability of the future environment.

Collaboration

A primary line of effort in the NDS is to build and maintain a robust constellation of allies and partners. Our integrated naval force is committed to training, operating, and learning alongside our allies and partners in every part of the world through every day interaction and regular operational exercises such as Trident Juncture, Talisman Saber and Rim of the Pacific (RIMPAC). Afloat and ashore, our allies and partners are crucial force multipliers and enablers of our global reach, particularly in evolving regions such as the Indo-Pacific and the Arctic. We must also break down organizational silos across our own Department and build more collaborative relationships with the other Military Departments and the Interagency to support whole-of-government approaches to security that will become more prominent in the future.

Visibility

While cutting edge ISR, cyber, aviation, and undersea assets ensure our global reach and awareness, there is no substitute for sustained presence and engagement. Through frequent port visits, stand-in forces, and Freedom of Navigation Operations (FONOPS), we will continue to demonstrate our enduring commitment to the defense of our people and interests, as well as our readiness and will to stand alongside our allies and partners. We will also focus on increasing transparency and information sharing in order to facilitate more rapid, and informed decisions.

Innovation

We will transform the strategic space to our advantage through next generation research and development, industry partnerships, and naval education. We are embracing the challenge of next generation technology and determined to dominate the design, development and effective deployment of major technological breakthroughs such as hypersonic weapons. We are making the key investments and forging the key partnerships to own the next "Sputnik Moment." We will become more comfortable with trying new ways of doing business, and more forgiving of incremental failures made in support of change and progress.

Adaptability

Where we cannot change the strategic environment through innovation, we will adapt to it quickly and efficiently through agile thinking and nimble platforms. This will allow us to protect our people and interests through unpredictable shifting security environments, and ensure the broadest range of options are available to the Commander in Chief and the Secretary of Defense. We will invest in an adaptable force structure, foster adaptable approaches to problems, and nurture the development of adaptable people comfortable with uncertainty and unpredictability.

Humility

We will address our challenges with a sense of humility, taking full account of the deficiencies we have, but with confidence that they can be corrected. We will be realistic in our planning and budgeting to assure we do not trade growth for readiness. We will not allow ourselves to build a hollow force, but we will be honest with the Congress and the American people about what we see the areas in which we need their full support in order to build the integrated naval force that is required to maintain the nation's security.

GRAY HULLS: BUILDING AND MAINTAINING THE RIGHT CAPABILITIES

In order to meet the many demands of the global strategic environment and ensure our warriors are always prepared to dominate the fight, we must design a future integrated naval force structure aligned to the threats we face, both today and in the future. This budget prioritizes the readiness of those platforms and systems that will enable the United States to maintain and expand its competitive edge over all adversaries while we examine ways to grow the fleet in a reasonable timeframe, all while remaining responsible stewards of American taxpayer dollars.

Divesting from 20th Century Legacy Systems

In keeping with the Department of Defense-wide priority to modernize from low-value legacy systems to fund combat-overmatch lethality tuned to the challenge of great power competition, this budget divests from multiple legacy or surge-based capabilities that do not align with the requirements of the NDS. It shifts capabilities from a counterinsurgency focus to systems that enable our personnel to exploit positional advantage and defend key maritime terrain for persistent forward sea control and denial operations. This budget also aligns with Secretary Esper's commitment to become more of a "fast follower" of commercial technology, and to dominate the future development and employment of artificial intelligence (AI) and hypersonics funding.

Building to a 355 Navy

Thanks to the bipartisan efforts of this Committee, the goal of a 355 ship Navy is now the law of the land. We will be working with the Office of the Secretary of Defense to develop a consensus perspective on this future force structure through robust analysis and wargaming and the inclusion of expertise from our academic institutions (Naval War College, Naval Postgraduate School, Marine Corps University) and independent naval experts. This process will be iterative and continuous. In order to meet the nation's national security needs and remain within budget constraints, we must consider how to shift costs away from high-end platforms to a larger number of smaller, but still highly capable ships. Such a shift will allow

broader presence, reduced manning, and longer reach through a significant increase in hypersonic weapons, greater stealth, and advanced anti-ISR capabilities.

We are also considering how unmanned surface and subsurface platforms should figure into our force mix. These platforms will not only allow us to distribute and conceal lethality, but to do so at a reduced cost and greater integration and interdependency with the Joint Force. While some perspectives vary on the ultimate composition of this future force mix, there is clear agreement that certain new classes of ships that currently do not exist today must be designed and built rapidly in the next ten years. The exact mix will be the subject of continuous evaluation and analysis, but it will not impede our immediate investment in the development and initial production of these new vessels.

Fielding a Ready, Relevant, Responsive Integrated Naval Expeditionary Force

A key aspect of our transformation will be a shift to greater naval expeditionary force capabilities and a restoration of the Fleet Marine Force. The potential for rapid change in the global environment, particularly in the Indo-Pacific, demands a rebalance from the current Marine Corps force land and surge based posture to a more distributed, rapidly deployable and fully integrated force. This budget continues investment in key Marine Corps development programs such as the Ground Based Anti-Ship Missile, Ground Based Air Defense, CH–53K helicopter, and F–35B Joint Strike Fighter, supporting Marine Corps efforts to enhance Long Range/Precision Fires, Protected Mobility/Enhanced Maneuver, and Air Defense.

Generating Readiness and Sustainability

This budget optimizes Marine Corps readiness to achieve 80 percent serviceability of reportable expeditionary equipment, and implements the Commandant's Infrastructure Reset Strategy so our warriors are always prepared and present to defend our people, our interests, and our allies. It sustains the shipyards and supporting industrial base to maximize repair and modernization capacity and minimize turnaround and downtime. To provide continual presence and readiness for the fleet, this budget funds 58 days underway while deployed and 24 days underway while non-deployed per quarter, with an increase of 6.5 percent over last year for ship operations funding. Leveraging private sector best practices through the Naval Sustainment Strategy, this budget continues to invest in Aircraft Depot Maintenance to achieve the goal of 80 percent mission capable rates for strike fighter aircraft. This budget also increases the Flying Hour program by 5.8 percent and aligns the funding for air operations to the mission capable rates to ensure that all squadrons deploy combat-ready.

Producing Next Generation Superiority

The *Columbia*-class submarine program enters the first year of incremental procurement funding for the lead ship, and this budget resources the program for on-track delivery to meet the first deployment in 2031, with a second ballistic missile submarine starting in fiscal year 2024 and serial production begins in fiscal year 2026, furthering the recapitalization of our Strategic Nuclear Deterrent.

Additionally, we continue to resource the development of the Fast Frigate, and Future Large Surface Combatant, both of which will greatly enhance our distributed capabilities and forward deployed lethality. This budget also continues advanced capabilities in the F–35B and F–35C Joint Strike Fighter for both the Navy and Marine Corps. We also maintain investment in weapons development to provide for longer range and hypersonic weapons, with increasing investments in areas like Conventional Prompt Strike and our Standard Missile family. Finally, we will look to Congress for support in our effort to expand training and testing opportunities through range expansion aboard Naval Air Station Fallon in order to fully develop and train with these lethal capabilities.

GRAY ZONES: WINNING THE FIGHT BEFORE THE FIGHT

The future battlespace extends well beyond the field of kinetic action. Ensuring our warriors are the best equipped and prepared in the world starts with accelerating our digital modernization across the force, streamlining our business processes and maintaining the highest level of efficiency. Agile and accountable naval forces are impossible without agile and accountable business processes that support them. With the support of this budget submission, the following are just a few of the reforms we are implementing throughout our integrated naval force to dominate the future fight, from the E–Ring to the front lines.

Executing the Business Operations Plan

The President's Budget Submission will allow us to accelerate our business process modernization across the naval enterprise through the use of advanced digital tools and technologies to substantially improve performance, speed, accuracy, and security. The DON Business Operations Plan (BOP) details the steps we are taking to transform our business operations in alignment with the NDS, with 6, 12, 18, and 24 month milestones to provide DON leadership the ability to better manage and monitor progress on the path to a more agile and accountable business enterprise. The plan provides clear direction for military and civilian leaders throughout the DON to maximize investments and effort in alignment with the NDS. It also provides greater transparency and oversight opportunities for our partners on this Committee as well as the American people.

Transforming the Digital Enterprise

Information management is a core strategic function of the DoN. Cyber security, data strategy and analytics, AI, and quantum computing have all combined to create massive opportunities—as well as vulnerabilities—across our entire enterprise. A critical element of mission readiness is the ability of our personnel to have access to relevant, reliable, and secure global communications and information, at every echelon and in every domain. In fiscal year 2019 we consolidated information management functions in a restructured Office of the Chief Information Officer (CIO), driving transformation and operational capability through the following lines of effort:

- *Modernize* DON infrastructure from its current state of fragmented, nonperformant, outdated, and indefensible architectures to a unified, logical, modern infrastructure capable of delivering an information advantage.
- *Innovate* operational capabilities through technologies like 5th Generation (5G) wireless and AI, and accelerate software development through Digital Innovation Centers, leveraging private sector and industry best practices to fuel our digital transformation.
- *Defend* networks and assets through continuous active monitoring across the enterprise to increase cyber situational awareness. We will institute a security culture where a personal commitment to cybersecurity is required to gain access to the network. We will transform from a compliance-centered culture to one of constant readiness, and we will work with our industry partners to secure naval information wherever it resides.

Managing Finance and Operationalizing the Audit

We have completed the second full scope financial audit of the entire DoN, revealing more opportunities to improve our financial management and business processes as well as many other aspects of our enterprise. The financial audit is the lynchpin to both monitoring and catalyzing improved business operations performance. Our senior leadership has repeatedly emphasized to all personnel that active participation in the audit process is not just a financial exercise, but a management tool that must involve the combined effort of all of our personnel in order to identify ways to improve our organization's effectiveness and accountability.

We are on track within the next two years to achieve qualified financial audit opinion for the Marine Corps, with an unqualified opinion the following year. This will make the Marine Corps the first military service in the Defense Department to receive such an opinion in the history of the United States. Achieving this for the Navy will be more challenging, but we continue to see improvements year to year. The DON has also conducted a Zero-Based Budget review designed to ensure alignment of goals and resources, achieve full value for every taxpayer dollar, and increase transparency in our resource allocation process. Finally, we have implemented Performance-to-Plan reviews that provided a fleet-focused and data-driven approach, accelerating readiness.

Modernizing Naval Supply Chain and Logistics

Our integrated naval force requires unified logistics operations and secure, reliable supply chains in order to maintain the distributed, forward maneuverable force demanded by the global strategic environment. Through the audit and other reform efforts, we have identified multiple areas where our supply chain and logistics processes are disjointed and divided, with areas of poor visibility and accountability that impact our forward inventory and readiness.

These efforts have also revealed areas where greater integration between the services is needed and where our multiple supply chains require consolidation and optimization. We are developing a long-term strategy to address these deficiencies, beginning with a new modern vision for future integrated naval logistics and supply

chain management, and will proceed with executing reforms consistent with this vision this year.

GRAY MATTER: DEVELOPING OUR PEOPLE

We cannot solely define American seapower by ship counts and high-end systems. In the end, our core strength will always reside in the gray matter between the ears of our people as much as it does in the gray hulls out in our fleet. Recruiting, retaining, educating and caring for the best military and civilian force possible has always been and will always be our greatest edge against all competitors. We will meet this challenge through transformative investments in education, greater connections with partners and allies, a competitive human capital strategy, a recommitment to high quality housing for our naval families, and a determination to eliminate the scourge of sexual harassment and assault throughout our total force.

Prioritizing Learning as a Strategic Advantage

As stated in the 2018 Education for Seapower (E4S) report, the intellectual capability of our Navy and Marine Corps team and our ability to operate as a continuous learning organization will serve as the enduring foundation of our credible deterrent to war. In the year since the E4S report was completed, we have established the office of the Chief Learning Officer (CLO) and moved quickly to introduce sweeping changes in the structure, integration, and prioritization of naval education. These changes include:

- *U.S. Naval Community College*—Our highest priority is to create a new United States Naval Community College (USNCC) that offers advanced, online technical and analytic education to our enlisted force in critical areas like IT, cyber, and data science. Free for every sailor and marine, the USNCC will fill a long-neglected gap in our educational continuum and provide a recruiting and retention incentive through degree-granting relationships with major four-year public and private universities across the nation.
- *Naval Education Strategy 2020*—Our recently released Naval Education Strategy 2020 is the first ever comprehensive education strategy for our integrated naval force. The strategy will lay out a clear road map to develop a lifelong learning continuum for our entire force, reform our personnel systems to better recognize and reward the value of education, and invest in our schools and education programs.
- *Strategic Education Requirement for Flag and General Officers*—The opportunity to wargame future scenarios and technologies, study naval strategy and debate alongside peers is vital experience for the leaders who will guide our integrated force through the future strategic landscape. That is why we are now requiring in-residence strategic studies graduate education for promotion to Flag or General Officer rank.

Recruiting, Curating and Retaining the Best Talent

This budget provides the resources to fuel a new human capital strategy to better access and curate best-in-class talent for our Navy, Marine Corps, and civilian work force. We developed this strategy leveraging leading private sector business practices designed for the new economy. Initial pilot programs in support of this strategy will begin this year. The Navy's Sailor 2025 initiative and comparable initiatives in the Marine Corps have contributed to successful recruiting and retention in what should be a very challenging market.

Through a combination of non-monetary, quality of life, and customer service programs, we are increasing our responsiveness to the needs of the individual warfighter and their family, making continued service a viable and attractive option. We are increasing avenues for civilians with prior service through the Targeted Reentry Program, and expanding opportunities to serve in meaningful civilian capacities. We are also increasing opportunities for our personnel to learn, operate, and innovate alongside partners in the private sector, across the joint force, and alongside our partners and allies.

Setting Our People Up for Success

Through USMC Global Force Management, we will continue to field an elite Active and Reserve Marine force, maintaining a 1:2 deployment to dwell ratio while working towards a necessary 1:3 ratio to preserve constant readiness and availability of personnel while also reserving time for training, refitting and family support. This budget increases funding and training for Marine Forces Pacific in support of the Commandant's Planning Guidance and the NDS. The DON has also implemented over 100 of the recommendations from the Readiness Reform and Oversight Council (RROC) in order to maximize opportunities for our personnel to suc-

ceed. Among many other changes, we have increased opportunities for shipboard certification and skills enhancement, while adjusting manning schedules to maximize safety and improve quality of life and professional effectiveness for our personnel while underway.

Standing Up for Our Military Families

Our people must be confident that their leadership will look out for their interests and advocate tirelessly for their safety and well-being. Unfortunately, as Congress correctly identified last year, we have not always lived up to that responsibility, particularly with respect to our administration and oversight of the Military Privatized Housing Initiative (MPHI) program. We are committed to making sure we assess, monitor, and remediate issues of concern quickly and effectively through active and engaged leadership and reinforced Department-level oversight to restore the trust of our residents. Over the past year, Navy and Marine Corps leaders reached out to all of our sailors, marines, and their families to inquire about on-base housing concerns and offered home visits to better understand those concerns. We are also leveraging technologies such as an app for residents to report issues and track their resolution and an Electronic Data Warehouse that allows leaders at every level the opportunity to spot trends and issues quickly and effectively. This budget also provides resources for additional personnel to advocate for resident needs. In total, the Navy and Marine Corps housing programs are hiring 277 more housing management specialists, housing inspectors, quality assurance specialists, and project and business managers.

Combating Sexual Assault and Sexual Harassment

We are each determined to eliminate the scourges of sexual assault and sexual harassment from every part of our force. These behaviors stand as a betrayal of those who have stepped forward to serve and of every person who wears the uniform, military and civilian. Our Sexual Assault Prevention and Response Office (SAPRO) is coordinating education, outreach, care and prevention efforts across the force. We have reached out to university presidents and other civilian education leaders through our first annual symposium held at the U.S. Naval Academy in April 2019, as well as regional discussions in New York City in September 2019 and in Albuquerque, New Mexico in early February 2020. We are examining new prevention and education efforts including a renewed focus on junior enlisted leaders and the role of alcohol in sexual assault and harassment. We will continue to work with this Committee to pursue and share the best practices and ideas, relentlessly pursuing a future where no sailor, marine, or civilian teammate ever has to fear for their own safety while protecting us all.

Building a Robust Constellation of Partners and Allies

As extraordinary as the people of our integrated naval force are, we recognize that we cannot meet the global challenge alone. The strategic maritime defense partnerships we maintain with our partners and allies around the world extend the reach and power of our force, but more importantly they underscore the importance of cooperation and coordination in maintaining the rules-based international order that enables so much of our global prosperity and security. Our personnel regularly train and operate alongside their foreign counterparts, test the interoperability of our systems, and build our collective readiness. Operational exercises, international port calls, joint Marine force training, aviation training and other interactions all build the personal contact that generates understanding and respect across national and functional lines. Our personnel know that through their service they are front-line diplomats for our nation, promoting through their professionalism and dedication the connections that strengthen our collective security and cultivate shared ideals that send the message that the United States is a partner worth having.

U.S. NAVY PRIORITIES

The President's fiscal year 2021 budget request seeks nearly $160 billion for the U.S. Navy, an investment that will continue the momentum built since the release of the National Defense Strategy (NDS). The competition articulated in the NDS will continue for the foreseeable future and demands purposeful action over a long time horizon. As a result, consistent, sustained, and predictable funding is critical to ensure that taxpayer investments already made in the Navy are fully realized. We are grateful for the predictable funding we have received in recent years.

We are proud of our intensely collaborative effort to deliver Integrated American Naval Power to the people we are sworn to defend. This integration will sustain the naval forces that our nation demands and our Joint Force expects. This integration

will also place the United States in the best position to compete and win against the pacing threats we face.

The guiding principle of the Navy's portion of this budget request is to deliver decisive naval power, blending readiness, lethality, and capacity together to create a naval force that is agile and ready to fight today while also committing to the training, maintenance, and modernization to ensure the Navy can fight and win tomorrow. This budget submission materially advances the efforts that fall under these three objectives.

Readiness

The CNO's initial guidance to the Navy stated, "Mission One for every Sailor is a ready Navy...a Navy ready to fight today." The Navy must be able to conduct prompt and sustained combat at sea, but current readiness also supports the indispensable roles the Navy performs on a daily basis: securing American commerce, which is more heavily entwined with the seas than ever; telegraphing resolve; and deterring conflict. These roles are enduring and timeless, but they are also deeply connected to the priorities articulated in the NDS.

It is important to consider the historical context for this intense focus on readiness. The readiness landscape today differs significantly from twenty years ago. In 2000, the Navy had 318 battle force ships. Today, we have 293 after growing from a recent minimum of 271 battle force ships a few years ago. However, the number of deployed ships across the timespan from 2000 to today remained roughly constant. Today, we have 68 battle force ships deployed around the world. Sustaining this level requires many more than that number to deploy each year.

These demands for naval forces have led us to forward deploy a greater proportion of the force and significantly increase the length of rotational deployments. The extended deployment of the *Abraham Lincoln* is an example of this trend: her 294-day deployment was the longest for an aircraft carrier since the mid-1970s. While her extension was the best decision we could offer to support the demand for forces, it does not come without consequences. When ships, aircraft, and submarines are deployed longer, they require more maintenance to return to sea as ready as they were before. Moreover, our statistics show that this relationship is sometimes nonlinear: "surge" deployments and heavier operational use can exponentially increase the time and cost required to recapitalize these valuable assets.

Our approach to implementing the NDS has already led us to guard readiness more carefully by ruthlessly prioritizing requests for forces. The growth of the Navy over the past several years has also increased the denominator in the readiness equation, relieving some pressure on the force.

Yet there is much more to do, and we are committed to finding and closing readiness gaps. The American taxpayer and the Congress have generously funded ships, submarines, and aircraft, and we owe it to the people we are sworn to protect and defend to be good stewards of those investments.

We are committed to funding readiness at the maximum executable level. President's Budget 2021 makes a strong commitment to current readiness, acknowledging the sustained effort required to mitigate the effects of decades of intensive use of our ships, aircraft, and submarines. The funding requested for individual accounts such as Ship Depot Maintenance and Aircraft Depot Maintenance have increased over fiscal year 2020 enacted levels, reflecting purposeful choices about what we need to be ready today.

The Navy is already moving aggressively to ensure these funds are well spent. No reform is too small. Our relentless pursuit of reform has already paid dividends: our achievement of 80 percent mission-capable tactical aircraft this past year is one example. Acknowledging the challenges in depot-level maintenance and modernization, the CNO has directed Navy leaders to find the key levers of productivity that will allow us to deliver depot-level availabilities on time and in full. Although there is much to do, we are encouraged by the trends we are beginning to see. Our public shipyard workload has led us to increase hiring, increasing public shipyard end strength by 16 percent from 2013. We are working aggressively to improve estimates of the length of time our platforms need to be in maintenance, level-load depot-level maintenance across our network of industrial partners, better integrate different maintenance organizations within the Navy, and utilize predictive analytics. In concert with continued discipline in guarding readiness, we believe that we can deliver our platforms in maintenance on time and in full. We are also grateful for the strong support we received from Congress in our enacted 2020 budget for a pilot program for private contractor shipyard maintenance in the Pacific, and request that this pilot continue. We value our close partnership with industry and recognize that predictability on our part will help incentivize our partners to grow, providing critical capacity to complement the work in our public shipyards.

President's Budget 2021 robustly funds ship and aircraft operations, another essential element of readiness. As previously mentioned, it provides for 58 underway days per quarter per ship and bolsters flying hours for our aircraft. This directly contributes to readiness by allowing our sailors to train to complex, high-end naval warfare scenarios at sea and creating the maritime expertise our nation expects. While there is no replacement for operating at sea, the Navy is working rapidly to integrate Live, Virtual, and Constructive (LVC) training into the mix. LVC training allows units at all stages of force generation to maximize training for high-end warfare, and prevents the degradation of key warfighting competencies when platforms are undergoing maintenance.

This budget request also recognizes the truth that we cannot neglect our shore infrastructure in favor of future force structure or other priorities without an impact to readiness. This year's budget requests the largest amount of funds for Navy shore infrastructure in the past four years, allowing us to create readiness at sea through increased readiness ashore. Congressional support for this request will also help the Navy meet its obligations to sailors and their families, increasing the quality of public-private venture housing through increased oversight funded by approximately $35 million each year of the FYDP, addressing perfluoroalkyl substances (PFAS) contamination with $44 million requested for clean-up programs, and rebuilding Navy facilities in the wake of recent natural disasters.

Readiness at sea also depends land-based training ranges, especially for aviators and special warfare operators. These include the Navy's training center in Fallon, Nevada. Expansion of this range is critical to maintaining our readiness today as newer weapons, released from distances much greater than those of just a few years ago, require a larger safety zone around target areas. Expanding this range will allow us to send our sailors into combat fully prepared, providing realistic training and the skills they will need to win. We are committed to work with federal, state, tribal, and local partners to do so in a way that addresses the concerns of all.

Finally, a ready Navy depends on our true asymmetric advantage: our people. President's Budget 2021 increases Active Duty manning to keep our human capital synchronized with our force structure, raising our end strength by 7,300 sailors. This reduces gaps and shortfalls at sea, directly contributing to readiness. Manning ships, aircraft, and submarines at sea remains a top priority, and we will continue to operate effectively and sustainably over time as the battle fleet grows. The budget also sustains the suite of efforts under the Sailor 2025 initiative and continues to transform our Manpower, Personnel, Training and Education (MPT&E) system to provide auditable, responsive services to our sailors and responsibly reduce costs. It funds expanded educational efforts to obtain warfighting advantage. Recognizing our ethical obligation to create a strong, positive environment for our sailors, as well as the positive effect such an environment has on recruiting and retaining talent, we are committed to eliminating destructive behaviors such as sexual assault. We are focused on creating and sustaining a Culture of Excellence, where our sailors do not merely avoid doing what is wrong, but actively pursue what is right. The Culture of Excellence program also leverages predictive analytics to intervene before destructive behaviors occur, breaking the cycle of simply responding to events.

We are witnessing very good trends in recruiting and retention. This has enabled us to fill gapped billets at sea, reducing them from 6,500 in December 2018 to 4,900 in December 2019. We met our retention goals for all zones in 2019, retaining 76 percent of the force. We're reforming our recruiting efforts, saving millions of dollars by processing forms for new accessions using biometric signatures. Our recruiters are exceeding their goals: 2019 saw the Navy sign the second-largest number of Active Duty contracts, 40,756 new accessions, in the last 15 years. In an environment with low unemployment levels, these statistics are encouraging and demonstrate the America's young people see great value in joining the Navy team.

Lethality

Deterring our competitors from malign activity requires fielding a forward-deployed, lethal naval force. Our competitors are heavily investing in technologies aimed at our naval forces. Across the Navy's Total Obligation Authority (TOA), the capability investments directly enhancing current and future lethality comprise approximately 21 percent of the Navy's annual budget. This investment can be further sub-divided into future capability (~11 percent) and modernization (~10 percent).

Relative to the entire Navy budget, the value proposition of our modernization investments are often overlooked when compared with resources applied to major ship and aircraft procurement accounts. Each dollar is thoughtfully applied to specific key capabilities based upon a rigorous analysis of iterative wargames, exercises, and experimentation. Offensive and defensive modernization efforts enable our ships and

aircraft to operate in the face of today's advanced anti-ship and anti-aircraft systems.

In particular, we increased our investments in directed energy and hypersonic weapons. In terms of directed energy, we request to apply $170.3 million in fiscal year 2021 to our directed energy programs, which will rapidly advance our ship's defensive capabilities. In terms of hypersonics, we request to increase our investments from $642 million in fiscal year 2020 to $1.4 billion. President's Budget 2021 continues our focus on developing long-range, offensive fires launched from ships, submarines, and aircraft, including: Conventional Prompt Strike, the Maritime Strike Tomahawk, Joint Standoff Weapon Extended Range (JSOW–ER), the Long-Range Anti-Ship Missile (LRASM), and the Standard Missile—(SM-) 6. We are moving quickly to extend the range of the carrier air wing with the rapid development of the MQ–25, the Navy's first unmanned carrier based aircraft. MQ–25 does more than extending our reach; it lays the foundation for integrating unmanned air power into our carrier fleet. The combined effects of these modernization efforts extends the lethal strike range of the CVW into denied areas while enabling the CVN to operate outside the threat ranges of adversary anti-ship missile threats.

The fiscal year 2021 budget builds on the progress made in fiscal year 2020 to pursue a networked fleet by investing $82 million ($395 million across the FYDP) in artificial intelligence and machine learning technologies that improve decision quality and speed in combat. This networked fleet requires a resilient operational architecture to integrate our command and control, sensors, shooters, and weapons. To accomplish this, we will leverage our work on the Navy Tactical Grid to build the Joint All Domain Command and Control (JADC2) alongside our Joint teammates. Protecting our networked forces requires building cyber resilience and security into our platforms from the beginning. To meet this need, the Navy will fund $4.17 billion across the FYDP to protect our operations, equipment, and industrial base from intrusions and ensure we have the means to fight through and recover from cyber-attacks. Meanwhile, we will integrate our cyber forces more closely with fleet operations to deliver catastrophic cyber effects as part of an integrated all-domain naval force.

These investments all support a highly maneuverable fleet that controls the high-end fight. Nuclear powered aircraft carriers remain crucial to this effort and the Carrier Strike Group remains the cornerstone of the Navy's forward presence, sea control, and power projection capabilities. The nuclear-powered aircraft carrier (CVN), associated air wing (CVW), surface combatants, and sub-surface combatants represent the most survivable and lethal maritime fighting force in the world, providing long-range kinetic and non-kinetic effects from distributed mobile platforms at sea without the need for foreign basing rights. The CVN and embarked CVW are vital to the Distributed Maritime Operations (DMO) operating concept, providing the flexibility and endurance to hold large swaths of land or sea at risk for extended periods of time. *Gerald R. Ford* (CVN 78) represents a generational leap in the aircraft carrier's capacity to project power on a global scale. *Ford*-class carriers are designed to generate a 30 percent higher sortie rate with a 20 percent smaller crew than a *Nimitz*-class carrier. This translates to $4 billion savings over the life of the program generating more decisive naval power. With the successful completion of CVN 78's Post Shakedown Availability and subsequent Independent Steaming Events, finishing our work and delivering this capability to the fleet as quickly and effectively as possible is one of DON's highest priorities. The Navy has learned with each test and is consistently bringing each of the innovative systems online. *Ford* is currently undergoing final air compatibility testing, bringing the entire carrier air wing onboard and progressing towards her maiden deployment. We will continue to learn, iterate and improve, driving down cost on each subsequent ship of her class. We are grateful for the Committee's support of the program with the historic two-carrier award for CVN 80 and CVN 81 and are confident that the *Ford*-class will provide the foundation for highly maneuverable and lethal combat power projection well into the second half of this century.

Our naval logistics enterprise undergirds the effective employment of our forces in a dispersed, forward-deployed manner across the spectrum of conflict from daily operations into sustained major combat operations. Our logistics forces must provide forward-deployed repair and resupply as well as combat medical services to revive our forces on station. In addition, we will begin designing two new vessels, the Next Generation Medium Amphibious Ship and the Next Generation Medium Logistics Ship that will support our expeditionary forces operating in contested maritime spaces.

CAPACITY

To increase America's naval power, we will continue to build more ships, submarines, and aircraft. There has been a long-standing consensus across the government that the Navy needs to grow. We are focused on responsible growth, a rate of growth that ensures our ability to effectively maintain the fleet and to properly man, train, and equip that fleet.

We appreciate the strong support from Congress for naval shipbuilding, funding last year's request for 12 ships. We reaffirm our commitment to reach the 355-ship goal in a reasonable and strategically relevant timeline, and to augment a future 355-ship Navy with developmental and unmanned vessels. The pace of growth will depend on both our ability to find savings within our own topline. While this budget request slows the growth to 355 slightly to ensure we properly maintain the fleet we have, we are seeking ways to support increased rates of growth in the coming years. The challenges extend beyond the shipbuilding accounts, as we must also consider what increases in operations and maintenance accounts will be required to continue the momentum we have built in regaining readiness. We cannot, and will not build a hollow force simply to reach the 355 ship number. Because of the rate of change in technology, we will continue to refine the required number of ships in an iterative fashion, in coordination with the Secretary of Defense, and as informed by wargaming and experimentation.

The fiscal year 2021 budget requests $21 billion in ship construction for 8 battle force ships and plans to build 44 battle force ships (plus 17 unmanned ships) over the FYDP. This procurement includes one *Columbia* and one *Virginia*-class submarine each, two *Arleigh Burke* Flight III destroyer, one Guided Missile Frigate, one LPD Flight II, and two Towing, Salvage, and Rescue ships.

Deterring a nuclear attack on the homeland remains the Navy's most sacred duty and our number one acquisition priority. President's Budget 2021 fully funds the first year of construction of the lead ship of the *Columbia*-class ballistic missile submarine. Over the FYDP, we plan to start construction on the second ship of the class in fiscal year 2024 and, beyond the FYDP, to begin serial production in fiscal year 2026. The *Columbia*-class guarantees the most survivable leg of the nuclear triad remains on patrol into the 2080s, ensuring the secure second-strike capability that is the foundation of strategic deterrence.

This budget request also supports one additional *Virginia*-class submarine in fiscal year 2021, continuing the Block V multiyear contract awarded in December 2019, which will then procure two per year from fiscal year 2022 through the FYDP. Additionally, the Guided Missile Frigate [FFG(X)] program is proceeding well, and will provide the fleet with a lethal small surface combatant that is optimized towards distributed maritime operations. The Navy plans to award the lead ship of the class in July 2020 and the second ship of the class in fiscal year 2021.

We are committed to experimenting with unmanned systems, moving them beyond their current conceptual stage, and continuously assessing how they should be counted within the battle force. While we do not count unmanned ships at present, we will continue to procure our large unmanned surface vessel, buying 10 over the FYDP. These ships are envisioned to host both sensors and weapons. This procurement will transition to SCN funding by fiscal year 2023. We will also procure 6 extra-large unmanned undersea vehicles in the FYDP which will help provide solutions for specific fleet needs.

This budget also procures 277 fixed and rotary wing aircraft (including 121 F–35C) and 25 unmanned aircraft across the FYDP. We are completing the acquisition of several type/model/series aircraft and continuing to purchase essential capabilities, such as the advanced early warning provided by the E–2D Advanced Hawkeye and a new, flexible logistics capability in the CMV–22 Osprey.

We in the Navy are honored to defend American prosperity and American values around the world every day. We are excited to be working closely with the Marine Corps to deliver Integrated American Naval Power to perform these critical and timeless roles. We are conscious that every tax dollar spent to increase readiness, lethality, and capacity represents more than buying power, but the trust and confidence of the American people. We do not take that trust lightly and will seek every means to spend those dollars in a deliberate, methodical, and responsible fashion, maximizing naval power to the fullest extent that those funds enable. Thank you for your strong support and continued partnership in providing and maintaining a Navy.

U.S. MARINE CORPS PRIORITIES

Mr. Chairman, Ranking Member and distinguished members of the Committee, this statement is my first report to Congress and represents my assessment of the current state of the Marine Corps and priorities for the future.

The future operating environment will place heavy demands on our Nation's Naval Services, demands that the Marine Corps is not currently organized, trained, equipped, or postured to meet. Modernizing the Marine Corps for the era of great power competition will require significant adjustments to long-term Service investments, new integrated naval warfighting organizations and concepts of employment, and better training and education for marines; changes that only Congress can help us realize. The fiscal year 2021 budget puts the Marine Corps on the path toward modernization, supports irreversible implementation of the National Defense Strategy (NDS), and sustains and builds our readiness to deter, fight, and win.

My top priority as Commandant is to build the Marine Corps that will define integrated American naval power in 2030, even as it must remain ready to confront the challenges of today. I seek no additional resources for this effort. It is attainable with a stable budget and sustained by the leadership and oversight of Congress. Service modernization will require several years of dedicated analysis, wargaming, and experimentation on a level that we have not experienced in recent memory. We are committed to this effort and have already begun charting a new course. The Marine Corps is grateful to the Congress for its leadership and support during previous periods of modernization and seeks its continued support today.

Before addressing the issues of force design, readiness, resourcing, and the latest fiscal year 2021 budget submission, it is important that I start with a few comments on our individual marines and the health of the Corps. I strongly believe that everything we do begins and ends with the individual marine—the heart and soul of our institution. On any given day, the vast majority of your 225,000 marines, representing every state and territory, serve honorably and perform their duties at home and abroad in an exemplary manner. I am extremely proud to serve alongside them, and based on my discussions with members of this Committee, I know that my pride in them is shared. Regrettably, as several high profile incidents have revealed over the past several years, not all within your Marine Corps consistently adhere to our rigid standards, satisfy my expectations for professional behavior, or fulfill their obligations as marines. Addressing the corrosive effects of misconduct and criminality by this small yet destructive minority is a top priority, and I offer the following observations:

The presence of the malignant individuals and sub-cultures within the institution produces a well-known and well-documented pattern of misogyny. A 2018 publicized report commissioned by my predecessor clearly supports these observations as facts. I have begun the process of exposing and eliminating these malignant subcultures from our ranks and will seek Congress' continued assistance to that end.

Eradicating sexual harassment and sexual assault remains a challenge across the military and the Marine Corps. I acknowledge what many of you already suspect or know—after many years of trying, and despite our best efforts and intentions, remedial actions taken to date have not caused the desired outcomes. I seek to address this problem head on.

There are some within our ranks who remain hesitant to accept gender-integrated training at our enlisted recruit depots. I would remind those marines that the Corps has conducted gender integrated training at Officer Candidates School for more than two decades, with outstanding results. I have every reason to believe that we can replicate that model in our enlisted recruit depots, and have already begun moving forward expeditiously, with the continued support of Congress. I understand the direction and the effort the Marine Corps must take to comply with the specified timelines for both MCRD Parris Island and MCRD San Diego in the 2020 NDAA that will meet the intent of Congress and the needs of the Marine Corps.

The Marine Corps is a warfighting organization. We exist for that one purpose; to fight and to win. All that we do is standards-based in order to produce a premier expeditionary warfighting force for the Nation. In some occupational specialties within our Corps, there are legitimate operationally-derived physical requirements that every marine must meet. marines who meet these standards, regardless of biological sex or gender, will face no artificial barriers to their service or advancement.

Appropriately addressing all of these issues becomes even more paramount as we design a future Marine Corps that is optimized to meet the challenges of 2030 and beyond. As we consider the skills, education, and capabilities required of the next generation of marines, we must be able to recruit and sustain a force that draws from 100 percent of our Nation's collective reservoir of talent, innovation, creativity, and patriotism. I take it as a personal responsibility to do everything within my au-

thority to ensure that the Marine Corps does not create any artificial barriers to service or advancement.

Force Design is my top priority as stated in my Commandant's Planning Guidance. Over the next 3 to 5 months, we will continue to refine and deepen the analytical depth of our initial planning through an iterative process of wargaming, analysis, and experimentation. That work will directly support the redesign of our Corps. Our collective Fleet Marine Forces, as well as our HQMC organization and many of its processes, to include the existing Planning, Programming, Budgeting, and Execution (PPBE) process, require a comprehensive overhaul to create the necessary level of naval integration across the Department. Naval integration with the CNO's Staff, with the fleets, and within the Department remains a top priority for me, the CNO, and the Secretary.

Thanks to your continued support, your Marine Corps remains the Nation's most ready force. We have made forces available for deployment to meet combatant commander requests around the globe, often on short notice. Those deployed Marine Units reinforce our commitment to U.S. allies and partners and serve to uphold the international rules-based order. Wherever deployed globally, your naval expeditionary forces facilitate conventional deterrence, prevent fait accompli scenarios from developing, and successfully compete against malign maritime gray zone activities to assure our allies and partners of our continued commitment. This will not change.

With your support, over the previous two years we have been able to satisfy increased global force management demands, including those made on our legacy fixed-wing aircraft squadrons.

However, we should be careful not to confuse availability with operational suitability. Readiness must be more than a mere measure of availability. True readiness, which we define as the readiness of a unit to be employed against a peer threat to achieve decisive tactical and operational outcomes, requires investment in modern capabilities commensurate with those of the threat. This will require a significant shift from our most recent fiscal year 2021 budget submission. I would also respectfully submit that it may require a reassessment of our existing processes and metrics for assessing unit readiness—true readiness as described above. Within the Marine Corps, I am sustaining and reinforcing initiatives started by my predecessors that will increase the realism of pre-deployment training to more closely align with scenarios identified in the NDS. In addition, following a path that I readily acknowledge has been charted over the course of decades by the Army, we have added an extensive program of force-on-force training to our long-standing live-fire combined arms training exercise program.

With these goals in mind, over the coming months, we will make significant changes to the organization of our Training and Education Command, which will require the support and consent of civilian leadership for full implementation. Additionally, it is not lost upon me that our desert training facilities, superbly adapted as they have been to preparing for the challenges of the last three decades, are less than ideal for the kind of integrated naval training and experimentation that we need to prepare for great power competition in contested littoral environments. Identifying and developing first class littoral training areas will be one of my priorities going forward, for which I will ask your guidance and support.

Regarding this fiscal year 2021 budget submission, I am well aware that our budget requests since the release of the NDS two years ago have changed only marginally year-to-year. While the cumulative impact of those marginal changes is in some cases substantial, many were budgetary actions that merely shifted funding within existing programs. This is not the kind of substantive change now needed, nor will it result in the premier naval expeditionary force required to implement the NDS and realize our evolving naval and joint concepts. In fact, our major programs of record prior to the formulation and release of the NDS—F–35, CH–53K, MV–22, ACV, and JLTV—have actually grown. As I stated in my Commandant's Planning Guidance, these and other programs—all of which were constructed to support a long-standing but now obsolescent conception of large-scale amphibious forcible entry—require a critical review. I expect that review will likely recommend major revisions and reductions to some of our major programs. We must then reinvest those resources into capabilities more relevant to the future security and warfighting environment, many of which we are developing but have yet to procure.

This necessary divestment and subsequent reinvestment process is a complex effort, and one that prudence dictates be conducted in the most thoughtful and analytically defensible manner possible. While it may be shocking to some for a Service Chief to openly criticize existing programs and priorities, our shift to the future is in no way an indictment of previous decisions or conclusions of those who once sat at this table or of any who provided oversight in the past. The simple fact that the

strategic environment has changed significantly and that we are now in an era of great power competition, mandates that we must make the necessary adjustments to our naval warfighting concepts and accompanying investment plans to create true readiness—operationally relevant and available naval forces that create overmatch over anticipated adversaries. I understand there are both structural impediments to change as well as strong interests resisting change; however, as I stated during my confirmation—I will always provide my best military advice and ultimately defer to and support the decisions of the civilian leadership within the Department and Congress.

The timing of this fiscal year 2021 budget submission coincides with an inflection point for the Marine Corps. Subsequent annual submissions will reflect that significant change in focus, and indeed I anticipate there will be opportunities even during the execution of the fiscal year 2020 budget to make in-stride adjustments with the consent and support of Congress. Simply put, with peer competitors striving to supplant the role of U.S. military forces regionally and globally, we cannot afford to delay modernization when we see opportunities to make prudent adjustments from prior plans. If we are to avoid being outpaced, agility in reprogramming becomes an essential tool to apply where it makes sense to do so.

This budget also supports our assertion that marine forces—operating as part of an integrated naval force—must seamlessly integrate into and play a complementary role within a larger joint force. Over the next few years, we must strive to reduce duplication of warfighting capabilities to only those areas that make sense tactically and operationally. Marine Corps contributions should largely be unique, complementary, and tailorable to the joint mission.

Beyond the issues germane to my role as Commandant of the Marine Corps—to organize, train, and equip Marine Corps forces in support of the fleets and combatant commanders—I offer the following observations as a senior naval officer and member of the Joint Chiefs of Staff.

Today's environment of renewed great power competition demands a truly integrated naval force; we no longer enjoy the luxuries of internal Service focus and inefficiency that the "unipolar moment" allowed. The imperative now to accelerate naval integration is driven not by historical example nor traditional bonds between our naval Services—it is driven by the global environment described in the National Security Strategy and National Defense Strategy. Our ability to operate as an integrated naval expeditionary force within contested areas provides the joint force with an asymmetric advantage, an edge that we must preserve and strengthen in this era of great power competition.

We need adequate numbers of naval platforms and surface combatants with the lethality to contribute to sea control and sea denial and appropriate defensive capabilities and sensors to operate in a distributed manner without imposing undue burdens on other platforms. Those platforms must also be affordable from both a procurement and sustainment perspective, as well as generate the kind of availability needed to meet future force generation requirements. Included in that future fleet must be adequate numbers of traditional amphibious ships as well as next generation amphibious ships that will enable the Fleet Commanders to employ the naval expeditionary force throughout a contested littoral area in a more distributed, lethal, and defensible manner.

While our aspirations and expectations are great, I am certain that Congress expects nothing less from the Marine Corps. With your continued leadership and support, we will achieve our shared goals and modernize our warfighting capabilities and culture to best support the Navy, the Joint Force, and the Nation.

CLOSING STATEMENT

On behalf of our entire integrated naval force and every sailor, marine and civilian in the Department of the Navy, the three of us would like to once again thank the leadership and membership of this Committee for your attention, interest, and ongoing support of our men and women in uniform. We are also grateful to the Committee for the recent passage of the fiscal year 2020 National Defense Authorization Act (NDAA). By passing this legislation you have enabled many of the priorities identified within this document, and you've sent a strong signal of support to our people—and a stern warning to our adversaries.

We also appreciate the funding stability and predictability of the past several years. This has given our force the agility and flexibility necessary to address emerging threats and the needs of our integrated naval force, while shifting away from less beneficial and relevant spending. This stability has saved money for the American taxpayer. We owe it to them to ensure that every single dollar is invested in the most effective manner possible to fulfill our sacred oath.

We urge the Committee to do everything possible to ensure continued funding stability so that we may implement the needed reforms and spending priorities discussed in this document to meet the great power challenge, protect the maritime commons, and stand in defense of the United States of America. On behalf of the world's finest marines and sailors, we thank you for your time and ongoing efforts, and we look forward to your questions.

Chairman INHOFE. Well, thank you, Admiral.

Secretary Modly, I probably should have started with you, but you are recognized now.

STATEMENT OF HON. THOMAS B. MODLY, ACTING SECRETARY OF THE NAVY

Secretary MODLY. Chairman Inhofe, Ranking Member Reed, distinguished members of this Committee, thank you for your bipartisan efforts on behalf of the sailors, marines, and civilians of the Department of the Navy.

It is an honor to be here today with Admiral Gilday and General Berger, both of whom have demonstrated a great commitment to each other and to each other's respective naval service as they worked collaboratively over the last several months to lead our integrated American naval force. Consistent with that spirit, we have taken a different approach to the written testimony this year by submitting one unified document instead of three separate documents, which you have seen.

Staying ahead in today's rapidly changing global strategic environment demands that our naval forces commit to unified planning, clear-eyed assessments, and sometimes some very, very hard choices. In this process, we must harmonize competing priorities, sustain our critical industrial base, and not allow our maritime competitive advantage to erode relative to global competitors and, more accurately stated, aggressive adversaries who wish to hasten our decline as a global force for liberty and for decency.

In the end, this budget submission is a manifestation of the hard choices we had to make this year, but it is centrally about the safety, security, and wellbeing of our sailors, marines, and their families. Ultimately I ask that you recognize that in this submission, we could not make trades that put our sailors and marines on platforms with equipment that are not ready for a fight, if a fight is what is going to be required of them.

While this budget slows our trajectory to a force of 355 or more ships, it does not arrest that trajectory. You have my personal assurance that we are still deeply committed to building that larger, more capable, more distributed naval force within the strategically relevant time frame of no more than 10 years. I look forward to working with this Committee and the entire Congress in the coming months as we develop some realistic plans to do that.

Our budget also demonstrates a clear commitment to the education of our people as we implement the recommendations of the Education for Seapower Study that I led as the Under Secretary of the Navy for the last 2 years. We are establishing a naval community college for our enlisted personnel as part of a bold and unified naval education strategy that recognizes that the intellectual and ethical development of our people is critical to our success as a naval force.

We are also stepping up our efforts to meet our solemn commitment to our military families through significantly more engaged oversight and accountability of our public-private venture housing program.

Finally, I would like this Committee to understand that as leaders of the Department of the Navy, we are both vocal and united in our determination to prevent sexual assault and sexual harassment throughout our force. Every sailor, marine, and Navy civilian deserve individual respect, dignity, and protection from this great naval institution. We have some work to do in this regard, but you have my personal commitment that we take it very, very seriously.

We are grateful to the Congress for passing this year's NDAA which enables many of the priorities identified within this document. In passing this legislation, you have sent a strong signal of support to our people and a very, very stern warning to our adversaries.

We also appreciate the funding stability and the predictability of the last several years. This has saved money for the American taxpayer and given our force the agility and flexibility to address emerging threats while investing in our integrated naval force.

We urge the Committee to do what it can to continue the stability so that we can implement the reforms and investments required to meet great power challenges, protect the maritime commons, and defend the United States of America.

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

Chairman INHOFE. Thank you, Mr. Secretary.

General Berger?

GENERAL DAVID H. BERGER, USMC, COMMANDANT OF THE MARINE CORPS

General BERGER. Chairman Inhofe, Ranking Member Reed, distinguished members of this Committee, I appreciate the opportunity to testify on the posture of your Marine Corps and our priorities for the future. I am joined by the Sergeant Major of the Marine Corps behind me, Sergeant Major Black, and my wife Donna.

I will start by echoing Secretary Modly and Admiral Gilday's thanks for timely funding, as well as your enduring commitment to the marines, sailors, and families through efforts like the hurricane recovery, which you authorized, provided for last year, and your revisions and oversight to our work on the public-private venture housing program which the Secretary mentioned. Your bipartisan support is critical to ensure that we continue to prioritize people as our greatest resource.

Thanks to predictable funding over the last few years, the Marine Corps has made significant progress restoring both availability and readiness. We are now at an inflexion point. We have to pivot now toward modernization while sustaining the readiness that this Committee has worked hard to authorize and resource. This pivot in my opinion cannot wait until next year or the following. We must move now or risk overmatch in the future by an adversary, and that is a risk we will not take.

As the National Defense Strategy directs and Secretary Modly recently emphasized in his first vector to all hands, we have to pursue urgent change at a significant scale. Marines have always

sensed when it is time to move out smartly. We do not hesitate. This is that time.

Realizing the bold direction of our strategic guidance requires acknowledging that there are fundamental changes in the operating environment and how we must organize, train, and equip the force. I am confident that most leaders recognize that significant change is required, yet the scope and the pace of that change is seemingly at odds with some historical resource allocations and some of our major acquisition programs which predate the National Defense Strategy.

This budget submission marks the beginning of a focused effort to better align resources that you provide with strategic objectives. Our future budget submissions will build on those investments with informed recommendations for force design, modifications, and adjustments to our programs of record. Together in partnership with my battle buddy, Admiral Gilday, and under the direction of Secretary Modly, we are committed to delivering the integrated naval fleet marine forces your nation requires.

As always, I welcome the opportunity to discuss our findings along the way, and we will keep each of you and your staffs informed as we progress. As always, we will be frugal with the resources we are given. We will ask for no more than we need. With Congress' commitment and support, we will ensure that your marines continue to have every advantage when we send them into harm's way.

I look forward to your questions. Thank you, sir.

Chairman INHOFE. Thank you, General.

I was going to start off talking about the fact that we do not have the 30-year shipbuilding plan. I am sure somebody will do that. There are two things that I wanted to get to, though, and one obviously is—it would not be unexpected—the USS *Gerald Ford.* I think most of us around this table here have been down there, have walked it, understand it, but we are also fully aware that that ship—the original plan to deliver the ship was September of 2015. The ship was going to be delivered fully capable at the cost of $10.5 billion. Now the projected full delivery of the ship would be April of 2021, the cost being at $13.2 billion.

Secretary Modly, today is your lucky day. You get to make the next prediction. I would like to have you kind of share with us where you think it is right now. It is my understanding that a lot of the things—it is not just the elevators—we talk about those—but also the catapults, arresting gear, the radar, and I understand now that the non-skid situation is taken care of from visiting with you in my office. But kind of go over where we are today, what your predictions are, and when this is going to happen.

Secretary MODLY. Senator, I appreciate the opportunity to talk about the *Ford.* I think the history that you laid out about the *Ford* is not a good history, and it is one that we should never allow to happen again. It is not the way that we should be delivering ships to the U.S. Navy.

That being said, we are where we are with that ship. One of the first things I did as the Acting Secretary was to basically put the fleet on notice that it is all hands on deck to make that ship ready for sea and ready for a fight, if that is what we needed to do.

So, we have taken several proactive steps over the last several months to get that ship ready. A lot of this work was going on already, but one of the main things we did is we moved the two-star admiral who is responsible for the PEO for all carriers. We moved him to Norfolk to basically be there. It is symbolic but it is more than symbolic. It requires a lot of attention to detail on many of the things that were lacking on the ship.

I have been down there twice since I have been the Acting Secretary, once as a surprise on my second day just to see what it is like, and I did not want any admirals there with me. I walked around, talked to the crew, got a good sense for where the ship was. I also rode the ship in after their last short deployment where they went out and did aircraft compatibility testing.

It has been night and day for me in terms of my perspective and my perception of what is happening with that ship. They have made substantial progress on the elevators. The elevators that are working and certified—I think there are four of those. They have done thousands and thousands of cycles with those with no problems. They launched close to a thousand aircraft and recovered them with no problems on the EMALS [electromagnetic aircraft launch system] either—so significant progress.

The most encouraging thing to me walking around that ship is talking to the crew. The crew loves the ship. The way the crew and how their jobs have changed, several of them coming from the *Nimitz*-class carrier to this carrier—it has completely changed the way they do their work.

Chairman INHOFE. I understand that, and I also talked to the crew. Those are their feelings exactly.

I wanted to get one more thing in in my time here. In a recent interview, you stated, quote, I do not know if we are going to buy any of the *Ford*-class after the CVN 81, which would be the fourth one. We are certainly thinking about the possibility of other classes. Can you elaborate on that statement?

Secretary MODLY. Yes, sir. I think we have a duty to look at what will come after the *Ford.* The fact that we made a two-carrier buy for the last two, it gives us some breathing room. It gives us a few years before we would have to award the next one, which would be in the 2027–2028 time frame.

Chairman INHOFE. Okay. That answers the question.

General Berger, on the CH–53K, which would be replacing the CH–53E, we are familiar with the cost of this thing and some of the overruns. I would kind of like to get an update in this brief period of time from you as to where we are, why it is really necessary, and just give us your opinion on that.

General BERGER. Thank you, sir.

The requirement for a heavy lift helicopter remains valid, in fact probably more valid in the adversaries, the competitors that we need to face and where you want your forward marines. You have to have the ability to move that force around and its sustainment from ship to shore or shore to shore or back to ship again. We have a valid requirement.

A year ago, the 53–K was in a different spot. We had both technical, as you know, engineering problems and cost problems. Today we are in a much better place engineering-wise, technologically. It

looks like the 53–E on the outside, but like you know, you pop the hood, it is a completely different aircraft. Everything from the exhaust, gas recirculation, to the other 100-plus engineering challenges, we have either solved or Sikorsky has a solid path forward. So I am very confident that the aircraft is on the right trajectory. Now it is function of cost, as you pointed out, sir, both procurement and the cost to operate——

Chairman INHOFE. Why does it cost more than an F–35?

General BERGER. Pardon me, sir?

Chairman INHOFE. Never mind. No, I was making a comment that it costs more than an F–35. When you are talking to the general public, they do not know much about your—they know about the F–35. Go ahead. So why does it cost more than an F–35?

General BERGER. It is a brand-new fly-by-wire aircraft.

Chairman INHOFE. Very good. Thank you.

Senator Reed?

Senator REED. Thank you, Mr. Chairman.

As I indicated in my opening comments, the Navy is critically short of attack submarines, 15 below the goal established previously and accepted by the Navy, and 14 destroyers below that objective.

Admiral Gilday, is there any chance that this demand will lessen over time or increase?

Admiral GILDAY. Senator, given the pace of the Chinese right now, I do not think that that threat is going to subside.

I also think, particularly in the undersea, we have an advantage, a significant advantage, and so we want to maintain that overmatch. We do not want to take our foot off the pedal.

Senator REED. No. I appreciate that.

I think also to, with respect to Russia, their sophistication undersea is another challenge. It is not just simply numbers. It is also more sophisticated vessels. Is that correct?

Admiral GILDAY. Yes, sir, much more sophisticated. As you know, the capabilities that we are putting into the *Virginia*-class, the block 4's and the block 5's, are significant. They are a significant leap forward for the United States. Our intention is to continue to press with that technology and improve it.

Senator REED. Now, on the block 5 buy, there was a 9-ship commitment, plus an optional ship. One of the concerns I have is the window for this option will close very quickly and that this might be the best year to exercise the option. Can you comment on that? Because I see pressure not only in the construction of the additional block 5 vessels but from all we have talked about here before, the aircraft carriers, everything else, destroyers. This might be the best year. Is that right?

Admiral GILDAY. Yes, sir. I believe so.

In terms of the workforce, I was just up in Groton at Electric Boat a week or so ago, and I left that shipyard confident about the capability of that yard to produce boats at the rate of two a year. They are planning for the significant increase of the work when the *Columbia* build begins in earnest. But that is a passionate, well-trained workforce up there, and I think that they can handle two boats a year based on what I have seen.

Senator REED. Thank you very much, Admiral.

Mr. Secretary and Admiral Gilday, the chairman alluded to this issue, but we are still awaiting these two significant reports, the Force Structure Assessment and also the shipbuilding plan. Based on Secretary Esper's testimony yesterday, I believe it is at his desk literally. We are waiting for that, and when will we get it?

Secretary MODLY. Yes, sir. I am very anxious to get over here and talk that through with the Committee. Secretary Esper wanted a little more time to digest it. It is informed by the 2021 budget but also by the integrated Force Structure Assessment that Admiral Gilday and General Berger put together, and I think he just wanted more time to understand it. We will bring it over here as soon as he feels that he is ready to do that.

Senator REED. I think the Committee encouraged him to take adequate time but not a lot of time. So we hope that will be the case.

General Berger, you have programs with the Army with respect to the JLTV, the joint light tactical vehicle. The Army is making some changes in the program. Are you adjusting to them, or how are you adjusting to them I should ask.

General BERGER. Senator, I am aware of the adjustments that they are making. We have not made any changes yet to our procurement, and if we did, it would be based on the Marine Corps' needs. But we are absolutely tracking the changes, the adjustments that they are making. So far, sir, I have seen it down in North Carolina where my son is. It is a phenomenal vehicle.

Senator REED. I have had the chance to look at it at the facility, and it is much more significantly—well, it is a good vehicle. I will stop right there.

Secretary Modly, the Committee in the last few years has created the National Sea-based Deterrence Fund because we understand the industrial base is significant, and there are problems with the industrial base for every type of platform. We think that by going into the industrial base through the prime contractors not only can we increase quality, protect from cyber intrusion, but also generate savings from doing the work right the first time.

Can you just briefly comment? I do not have much time.

Secretary MODLY. Senator, I agree. We have had some vulnerabilities in the supply chain across the entire Navy. It is a vulnerability that our adversaries have figured out, that is easy for them to get in, and they can piece information together, and they get a bigger picture even when a supplier may think that small piece of information is not relevant. So we are investing heavily in this. We are developing new strategies for how we do this, how perhaps we develop capabilities to perhaps create cloud areas for them that are secure. But it is a big concern of ours and we are addressing it.

Senator REED. In addition to that, it is a simple fact that quality construction at the sub prevents rework at the prime.

Secretary MODLY. Absolutely.

Senator REED. Thank you very much, Mr. Chairman.

Chairman INHOFE. Senator Wicker?

Senator WICKER. Thank you very much.

I appreciate the service of all three of you. I know you have had to deal with a budget number that you did not arrive at yourselves,

and I appreciate you doing that difficult task. We hope we can use our power of the purse here in this Committee and in the Congress to help you out on that.

I think Ranking Member Reed expressed, with regard to the 30-year shipbuilding plan, the sentiment of most people on this Committee that the Secretary should take enough time but not too much time. So I want to subscribe my views to what he said about that.

Admiral Gilday, with regard to the submarines, let me make sure. You said that the threat will not diminish. Actually the threat is increasing, and you nodded. But that is correct. Right?

Admiral GILDAY. Yes, sir. I agree.

Senator WICKER. That is not only with regard to the specific question, Admiral, that Senator Reed asked about submarines, but it is actually across the entire fleet. Is that correct?

Admiral GILDAY. I would agree with that as well, sir.

Senator WICKER. All right. Thank you very, very much.

I appreciate the fact that the NDAA tasked the Navy last year to review alternative acquisition strategies. The Navy came back with a report that said significant savings could be achieved by procuring various combinations of amphibious ships.

So let me ask you, Secretary Modly, and General Berger about these findings, particularly as they are related to the three LPDs and the LHA–9. Can you speak to the timeline for awarding the funding of these ships and what are the benefits of procuring these four ships together? Let me just get all my questions out there, and we will see what we can do in less than 3 minutes.

What are the specific capabilities and what is the specific importance, General Berger, of the amphibious ships that I mentioned?

General BERGER. Sir, the amphibious ships capabilities-wise in the past, pretty conventional view of what they did in terms of the Navy, the force projecting the marines ashore. The way that we are going to need to operate in the future, even more challenging, and the role of the amphibious ship I think goes up. Why? Because in order to operate a force inside a contested area, at the unclass level, inside there, you have got to have the mobility and you need the ability to sustain that force for a long period of time in austere conditions and move that force around. Amphibious ships—people have spoke of them as sort of the Swiss Army knife. They are because you can move a force from the air, on the water. You got multiple means to do the job. So I think their value to the naval force and their value to the joint force goes up in the future.

Secretary MODLY. With respect to business considerations, Senator, we are looking at all types of options to be able to bundle our buys of ships in order to drive down the costs, provide more stability to the industrial base and that supplier base, which extends far beyond just the shipyards that are doing the primary construction. So I talked to Secretary Geurts about this this morning about how we might be doing this particularly in the amphib area, and we are going to be thinking about that and developing some plans to do that.

Senator WICKER. Specifically the United States currently has four DDGs based in Rota, Spain. These platforms provide an advanced multi-mission defense capability. I think we are getting the

right testimony with regard to the need there. Do we need the two additional DDGs in Rota, Spain? And tell us about the plans to accomplish that.

Admiral GILDAY. Senator, we support the two additional DDGs to Spain. Right now, we are working with United States European Command. They are putting together their strategic lay-down of the theater. So, when that is complete, you will be briefed up here in the Congress, and then in parallel, we will be moving through the Office of the Secretary of the Navy and the Office of the Secretary of Defense coordinating with the Department of State and then finally the Government of Spain so they can line everything up to get additional DDGs at some point to Rota. But we are very supportive right now. Our assessment is that the Spanish want us there in greater numbers, and certainly the Commander of United States European Command does.

Senator WICKER. Just briefly, General Wolters has testified that we actually have the infrastructure there at Rota that is able at this point to house the two additional destroyers. Is that correct, Admiral?

Admiral GILDAY. Yes, sir.

Senator WICKER. Thank you very much.

Chairman INHOFE. Senator Blumenthal?

Senator BLUMENTHAL. Thank you, Mr. Chairman.

Thank you all for being here, for your service, and thank you, General Berger, for your wife's presence here today. Donna's presence I think points to the importance of our military families and the service and sacrifice that they make so that we can be the greatest and strongest military force in the world.

In that connection, I would just like to mention I did not have a chance to question General Milley or Secretary Esper yesterday about the tenant bill of rights for military housing which, frankly, is somewhat mystifying to me in failing to set forth three of the essential rights that we incorporated in the NDAA last year. I want to emphasize again the importance of military housing and raising it to the standards that we think are important. I am going to be submitting questions in writing to them. I do not want to take time on it this morning, but any responses in writing you have on that issue I would certainly welcome.

General Berger, I appreciated your response to Senator Inhofe about the CH–53K, and I agree with you totally on the importance of this aircraft. In fact, as you may know, today literally marks the birthday of Connecticut's Sikorsky Engineering, which was established March 5, 1923. It has provided 97 years of capability for our nation's defense, including the CH–53K, which is a marvel of engineering.

I want to suggest that the cost of each aircraft would come down if the pace of production is increased. If we go from seven to nine, which I would advocate, the cost per copy would come down. Would you agree with that point?

General BERGER. I would agree with the math, yes, sir.

Senator BLUMENTHAL. Thank you.

Admiral Gilday, I want to thank you for your visit to Groton which was enormously meaningful and inspiring, and your very insightful questions—and I agree with you completely that we have

one of the great, passionate, dedicated workforces in any engineering facility there at Groton.

But I am deeply concerned by the graph that you and I saw of the worker demands, the production, and employment capabilities that we are going to see and the troughs, the deep dips in employment and particularly during 2023 to 2024. I would like to know what the Navy can do to mitigate those troughs. I know that time will not permit you to give a full answer, but I am going to ask for a full briefing. I asked for the charts and some of the underlying data while we were there, and I wonder if you could respond to that point.

Admiral GILDAY. Yes. I would just say with the lack of an additional submarine in fiscal year 2021, what we would do and we are doing right now is to take a look with Electric Boat at how we might be able to put some of their workforce that would otherwise potentially be furloughed to work whether that be at Portsmouth, New Hampshire in our facility up there or down at Newport News, Virginia.

I will tell you this, that we believe that the defense industrial base, particularly the work that is being done with ships and submarines is absolutely the crown jewel in the defense industrial base. We want to work very closely to make sure that we do not hit a trough that we cannot recover from quickly because that industry just is not very elastic. We lived through this before, and we have to be more responsive.

Senator BLUMENTHAL. As you know, there has been a furlough of about 300 workers in the last few months, but that is minuscule compared to the thousands that we will see going down and then coming back in terms of the demands on that workforce. So the lack of that second submarine in 2021 is really going to be impactful. You are absolutely right. It is the crown jewel, and I think we are really playing with fire if we fail to make sure that workforce is sustained.

Admiral GILDAY. Yes, sir.

Senator BLUMENTHAL. Thank you.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Cotton?

Senator COTTON. Thank you, Mr. Chairman.

Thank you, gentlemen.

General Berger, I want to return to the chairman's question about the 53 kilo. Given its costs, can you just tell us in a little more detail what is the long-term outlook for this helicopter?

General BERGER. Sir, our program of record is 200 aircraft. That is our requirement, and the two costs, as most folks in here are really well aware of, are the APOC, the individual cost upfront, and then the flyaway recurring cost. The math, as outlined accurately before—when we get on schedule for a buy and the learning curve continues up, then the cost starts to come down. But we have to close that gap because I owe you an honest answer that this is an aircraft that we can afford. This is an aircraft that we can sustain over the lifespan of it.

So far, again, the engineering part I am very comfortable with. Now it is a function of closing the gap to where I can convince you

that this is the best use of our resources for an aircraft we definitely need.

Senator COTTON. So you are saying that you owe us an answer and you need to convince us. It does not sound like you are yet fully convinced yourself?

General BERGER. I think there is room still to close the gap, and Sikorsky agrees as well. The learning that happens on the first of anything, of course, they are going to drive down the cost just because they are going to produce it more efficiently and the engineering cost that is going to the first batch of research and engineering models is going to go down.

Senator COTTON. When do you think we might get that answer?

General BERGER. The next contract is due to be awarded I think in the August-September time frame. We will know then.

Senator COTTON. I want to turn to another item that was in the President's budget request, which I found interesting. You are going to buy Tomahawk missiles this year. Specifically, I see the Marine Corps in fiscal year 2019 asked for zero Tomahawk missiles. In fiscal year 2020, you asked for zero Tomahawk missiles, and in fiscal year 2021, you have requested 48 Tomahawk missiles. I presume you are not planning to launch those off any of your amphibious ships. So could you tell us what you plan to do with those 48 Tomahawk missiles?

General BERGER. Yes, sir. Part of the homework that the Navy and Marine Corps have done over the past 6 months is how we think we are going to need to operate in the future as an integrated naval force. That means the Marine Corps assumes the role, which we have not had in the past 20 years, which is how do we contribute to sea control and sea denial. The Tomahawk missile is one of the tools that is going to allow us to do that.

Now, it is much like the MQ–9 Reaper for us. It could be the answer. It could be the first step towards a longer-term answer 5, 6, 7 years from now. But what we need is long-range precision fires for a small unit, a series of units, that can from ship or from shore hold an adversary's naval force at risk, and that missile is going to help us do that.

Senator COTTON. And is it safe to say that this decision is a result of our withdrawal from the Intermediate Range Nuclear Forces Treaty that you can explore these options?

General BERGER. I would assume so. I had not linked the two together. We just knew we need long-range precision fires beyond the range that we were restricted to before. Yes.

Senator COTTON. And most particularly in the western Pacific, given China's long-range precision fires since they were never a party to that INF Treaty?

General BERGER. Absolutely, yes.

Senator COTTON. Okay. I am glad to see that you are exploring those options. I am sure a lot of your marines would think it would be awesome of you launched them from amphibious ships, but probably not what you have in mind. But obviously, we face a pretty significant fire power gap in the western Pacific given China is stockpiling thousands of missiles, and it is good to see your service beginning to address that. Thank you.

Chairman INHOFE. Senator King?

Senator KING. Thank you, Mr. Chairman.

First, in a hearing like this, you always get comments and questions about things that are left out. I want to start with a compliment, the fact that you have increased the R&D budget, because we are in not only a competition of forces and ships and troops, but a competition of innovation. If we are going to stay ahead in terms of the technology of future conflicts, R&D is going to be critical. Directed energy I think is an enormously important potential part of our naval force. Hypersonics we have discussed, and I think that is something we are going to be discussing or I am going to be talking, Admiral, with you and your staff on in a classified setting. Unmanned craft. I mean, there is just a lot of new technology that has to be developed over the next several years, and I compliment the Secretary and the Department for putting some emphasis on R&D and innovation.

Now, for the other side of the coin, I am concerned that we are talking about trying to get to a 350-ship Navy, or actually, Mr. Secretary, I think you have talked about a 390-ship Navy. We are also talking about developing a new large surface combatant, and yet in the new FYDP, we are losing four destroyers, which are sort of the workhorse of the surface combatants. I am worried about a gap. I am worried about a fall-off not only in shipbuilding but in the industrial base. Can you speak to that concern?

Secretary MODLY. Senator, thanks for the question. I think one of problems we have this year is we have sort of a confluence of bad timing on a lot of different things. We started on this integrated Force Structure Assessment last summer. It was delivered to me in January, and it sort of came to me after we had already completed most of the work on the 2021 budget submission.

So what we found in this Force Structure Assessment is that there is a demand for a 355-plus type of scenario.

Senator KING. And part of that 355 are large surface combatants.

Secretary MODLY. Yes, they are.

Senator KING. Like DDGs.

Secretary MODLY. Yes, they are. Most of everything that we have right now is going to be part of it, but there are new things that General Berger alluded to, a new, smaller amphib, a new, smaller combat support vessel that can help support distributed maritime operations. Of course, the new frigate will be a key element of that strategy and in that new force structure, and then the unmanned platforms, both undersea and on the surface, will be part of that future force mix. We are just in process of trying to educate and help the Secretary understand what this might mean, and then we will move out with a strategy for how we get there. That is a challenge for us.

But in any scenario, we are talking about a significant expansion in the size of the fleet, and we are looking at a flat top line, and that mathematical equation is difficult for us to bridge.

Senator KING. Well, one of the problems is that we are trying to recapitalize through operating budgets. Any other business in the world would say a 40-year asset like a *Columbia*-class submarine is a capital investment as opposed to a drain on current operating cash flow. It is the bulge in the process of the modernization and the rebuilding of the nuclear deterrent that is really causing a lot

of this squeeze as I see. Admiral, do you agree with that assessment?

Admiral GILDAY. Yes, sir, I do. The Secretary has challenged us with finding $8 billion this year in our existing budget so that we can put that towards not only shipbuilding, but all the other pillars that support it, the manpower, the weapons, the training, et cetera, so that we can increase our numbers.

With respect to the legacy ships that we are looking at decommissioning, we get to a point, sir, where the return on investment—we are just not going to get the return with respect to lethality, and some of these hulls are over 30 years old. So numbers are important, but in the end, we would rather have a ready, capable, lethal fleet over——

Senator KING. Of course. Lethality is the measure not absolute numbers. I understand that.

By the way, if you are talking about decommissioning ships, give them a few more years. Then send them to Caribbean and Pacific where we can interdict some of these drug shipments. We are now interdicting 25 percent of the drug shipments we know of—we know of—and 75 percent are going by, even though we know they are there because of a lack of assets. So, if you got spare ships, Admiral, I know where you might want to send them.

Admiral GILDAY. Sir, we are sending ships to Southern Command and in discussions right now about what those numbers ought to look like. In fact, we are deploying two littoral combat ships this year.

Senator KING. Because that is a war we are in right now and Americans are dying in that war.

Admiral GILDAY. Yes, sir.

Senator KING. And I sincerely hope you and SOUTHCOM and the Coast Guard can really get together and make a dent in that traffic.

I am out of time, General, but perhaps for the record, you could give me your thinking on the reduction of your end strength by 2,100 marines, given the demands on the Marine Corps. So, I will look for that. Thank you.

Thank you very much, Mr. Secretary.

Chairman INHOFE. Senator Rounds?

Senator ROUNDS. Thank you, Mr. Chairman.

Gentlemen, thank you for your service.

General Berger, there have been reports that the Secretary of Defense will move the Close Combat Lethality Task Force from an element the director reports to him to one that reports to the Army. This is an organization that is examining the full range of capabilities from material solutions to physiological performance to improving policies in order to provide the overmatch to the 4 percent of the members of the joint force who have experienced 90 percent of our combat deaths since the end of the Second World War. This is obviously a joint problem, one that the Army, Special Operations Command, and the marines need to have full visibility on and where solutions need to be joint and Department-wide.

Can you provide me with your best professional military advice on what about this move could work and what about this might not work for the Marine Corps?

General BERGER. Sir, I am very familiar with it.

When it was initially stood up and since, it was run by a retired marine colonel, who I know really well, from Fallujah, Iraq. So for the Marine Corps, we have been involved in the task force from day one and still are.

The move to shift it into the Army I am not concerned about. We work laterally on a lot of programs like the joint light tactical vehicle. It is not an issue at all. But parking it in a service is a good thing because they know how to run a program. They know how to resource it, and there are great working relationships between services already. We remain tied in on that task force. We have marines as part of that task force within the Army now. That will continue for all the reasons that you said. That is where the casualties occur.

Senator ROUNDS. Thank you, General.

Today in the way that we fight our wars, the electromagnetic spectrum is essential in terms of how we do battle, and we use multiple parts of the spectrum. I want to refer to the Secretary's HASC testimony on February 26th. Secretary Esper said that the DOD [Department of Defense] is willing to share—and I emphasize share—spectrum with 5G networks in the mid-band range of 3 to 4.2 gigahertz.

Secretary Modly, what systems does the Navy have that might be affected and how could sharing that spectrum space impact homeland defense? I would like to specifically point out we are talking about sharing and not vacating that space.

Secretary MODLY. Senator, it would have a profound impact on our Aegis system, and of course, we cannot abandon that spectrum. It would have profound negative implications for that system. So as the Secretary stated, we are willing to share it, but we have to be very protective of that because it is critical to our ability to defend ourselves as a nation.

Senator ROUNDS. Thank you.

Admiral Gilday?

Admiral GILDAY. Sir, I have nothing to more to add to the Secretary's comments. I completely agree. We need to protect that portion of the spectrum for Aegis for homeland defense.

Senator ROUNDS. Thank you.

Let me go back a little bit and talk about submarines. We have talked about building new submarines. I would like an update, if I could get it, with regard to the mid-life refueling on the submarines, the nuclear attack submarines, that we have right now. I want to point out—and I have done this in the past—we are talking about the USS *Boise.* Now I understand there are three more that are waiting at dock to be able to sequence into dry dock to be actually refueled and made available for service again. The need I believe is still there, and you can correct me if I am wrong, but with these particular submarines, we still want them. This could mean that the USS *Boise* may very well have been out of service for a period of 8 years waiting for refueling before it is back in operation again.

Can you tell me what we are doing to expedite the process to bring these submarines back on and where we are at in that process?

Admiral GILDAY. Sir, we are going to begin maintenance on *Boise* this May and then we will get under contract for extended maintenance.

At the time that these decisions were made on *Boise,* we had a capacity issue in our public yards, and so we started to then send some of that work to private yards. We are now at the point—and I know you are aware of this—in the public yards, we have increased that workforce by 10,000 workers in the past 10 years and some 4,000 in the last 3 years I think, and so we have the capacity back. We are actually taking one of our availabilities from a private yard and now moving it back into the public yard.

I do not want to imply that we are out of the woods yet. We are watching it very closely. I think we are in a better place now than we were 2 and 3 years ago.

Senator ROUNDS. If I could say, we will not have the same problem with the next three in line that we had with the *Boise*?

Admiral GILDAY. We do not anticipate it, sir, but I will go back and take a look and we will brief you in more detail on what that lineup looks like and any challenges that we think we may face.

Senator ROUNDS. Thank you.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Hirono?

Senator HIRONO. Thank you, Mr. Chairman.

Mr. Secretary, I want to thank you for visiting Hawaii, and I especially would like to thank your wife for the time that she spent with the family of the people who were shot at the shipyard and also the survivor. Please extend my thanks to her.

Over the past few weeks, I have met with several of your colleagues, including Assistant Secretary Geurts—in fact, that was only 2 days ago I think or yesterday—to discuss the importance of modernizing our shipyards. Of course, the delay in repair and all of that was just touched upon by the admiral. I cannot overemphasize the importance of us continuing to go through with the modernization plan.

Just to let everybody know, the Pearl Harbor Shipyard, which is one of the four public shipyards in our country, contributes nearly $1 billion to Hawaii's economy every year and employs close to 6,500 personnel, including nearly 1,000 engineers. It is the largest employer of this kind in Hawaii.

Due to the current inefficient arrangement at the shipyard, it is necessary that the optimization plan be implemented to provide much needed updates. I know you are very well aware we need a new dry dock and a production facility.

Funding the critical shipyard modernization program will require a significant portion of the Navy's budget. Does the Navy's fiscal year 2021 budget fully fund the shipyard modernization plan so that it will be implemented on time? And I am talking about the four shipyards, not just the one in Hawaii.

Secretary MODLY. Yes, Senator. This is a high priority for us in the Navy, and it is a 20-year commitment of $23 billion I believe over 20 years. So as long as we are here, we will continue to push for this. We are sequencing in the work in the most logical possible way that we can to address the things that you mentioned, which is how the work flows through the shipyards to make sure that we

do not do work now that then we are going to have to take out as part of the longer-term strategy. So, yes, it is funded. I believe we are spending almost $600 million on this this year, and that will continue.

Senator HIRONO. Is $600 million enough to keep to the timelines that we have for the modernization program?

Secretary MODLY. I believe it is. I think when we looked at this and we thought about the work and how we would push it through the four different yards, it made sense to do it in this way. Obviously, we would love to have more to be able to do more, but we also had to think about how we do not disrupt the current work that is in there at the same time.

Senator HIRONO. Now, of course, in Hawaii I would like to see some concrete actually being poured for the dry dock and the production facility sometime soon.

Mr. Secretary, in conversations that I have had with subcontractors that support our shipbuilding programs, I have heard that the guidance associated with the cybersecurity maturity modernization certification, CMMC, has been somewhat confusing making it difficult for businesses and contractors to comply. What can you tell me about the current state of the CMMC framework? I am told by the subs that there are changing requirements that come down the pike and they do their best to try and comply, but with regard to the new one, which is the CMMC, what timelines are in place for educating, certifying, and auditing our defense industrial base, keeping in mind that there are thousands of suppliers? And I assume that all of them need to provide certification regarding the security requirements.

Secretary MODLY. Yes, Senator. That is a great question.

If you would allow me to get you specifics on where we are on the implementation to that, I will do that.

We have elevated our cybersecurity awareness to the highest levels in the Department with a new office there. I am sure they are monitoring this, and I can get you specific details.

We understand there is pushback from the supplier base, particularly the smaller subs who see this as an additional cost for them, and we are trying to figure out ways that we can help them perhaps create some shared services for them that they could use at that level. But let me get you a specific answer.

Senator HIRONO. I think that is really important because we have literally, as I said, thousands and thousands of suppliers. I know there is always that weak link possibility if we do not provide them with the kind of support they need to comply.

Last week, Admiral Aquilino—he is the Commander of PAC Fleet—issued guidance instructing Navy vessels departing from port visits to remain at sea for at least 14 days before pulling into another port in order to monitor sailors for coronavirus symptoms. This week, the 6th Fleet followed suit.

How is the Navy preparing for coronavirus, and how do you anticipate that the virus will impact the Navy's ability to operate overseas? Admiral?

Admiral GILDAY. Senator, we are following the Department's guidance, which essentially tries to minimize contact, particularly in those areas where we know there is a heavy concentration of

coronavirus. It manifests in different ways in different geographic locations. We are receiving excellent reporting from the World Health Organization through to CDC and down to the Department on specific areas. Italy and Bahrain are really good examples. The Korean Peninsula is another good example. We are trying to be preemptive and preventative in terms of limiting numbers of large gatherings as an example. On a day-to-day basis, we are making decisions on closing DOD schools based on what we are seeing in terms of caseloads at local hospitals.

All of our medical personnel have been trained in the symptoms, and if they suspect that somebody does have corona, we test for it and then we send that off to a lab to be confirmed. But we also quarantine those people and their families until we ascertain whether or not they are actually infected.

Senator HIRONO. Do you have test kits?

Admiral GILDAY. No, we do not. We do not yet. But that is not just a problem for DOD. But I think that we are getting to a better place in terms of the production to allow us to be able to distribute those out to the force.

Senator HIRONO. Mr. Chairman, thank you for your indulgence and allowing me to go over. I do have some other questions for the record. Thank you.

Chairman INHOFE. Senator Ernst?

Senator ERNST. Thank you, Mr. Chair.

Thank you, gentlemen, very much for being here today, and, Secretary, I will start with you.

Many businesses across America depend on predictable shipbuilding requirements to maintain a trained workforce and develop manufacturing lines. You are probably not surprised to learn that in Iowa we do not build ships. We do not. But my landlocked home State of Iowa is part of the Navy's inventory and pipeline of talent, and Carver Pump, which I love to highlight, and its team of 110 hardworking Iowans supply pumps to almost every Navy ship in the Active fleet. They are being installed in many ships currently in production, and in total, Iowa is home to eight submarine industrial base suppliers. So we are very proud of that. While we are not providing the end product, the finished ship, we do have those suppliers.

I do understand that the Navy must utilize its funds and invest in assets that reflect the NDS of today, the goals to modernize our fleet. How are those conversations going with industry to ensure that their production capabilities can meet the requirements in this new era of great power competition?

Secretary MODLY. Well, we have an amazing supplier base in the country, but it is under pressure to some extent, and so we have to ensure that we are maintaining a steady flow of work through them. The carrier program alone, if you look at the *Ford* program right now, employs almost 60,000 people across the United States in 46 different States, and so when you think about a program like that, not just the employment but the type of employment, this is all high technology. We are bringing in workers, young people, training them in a trade that they can continue to contribute to this process over time.

We have to be really, really careful when we talk about decisions in this space because that national asset that they create is the ship that we see, but the national asset they contribute to is the national asset of manufacturing capability and high technology that exists in the country that follows them. So, we have to continue to worry about that and think about it.

When I go out and speak to industry, what I find more often is that I find businesses that are not currently doing defense work that are really interested in doing defense work, and how do we make it easier for them to do that? And so we are working on that.

Senator ERNST. Right, absolutely, and I do appreciate that.

We look at examples like the *Ford*. We get very concerned about that because as Members of Congress, we are watching those taxpayer dollars. So, we are reliant on industry as well to make the recommendations to make sure we are producing the necessary requirements for our fleet but get it out in a timely manner, and on time, on target is always best. But always having those discussions with industry is important. So thank you for that.

We are all familiar as well, Mr. Secretary, with this Committee's concern for the health and wellbeing of all of our service members. Last year, when Congress passed the NDAA for fiscal year 2020, we included a provision that directed the Department of Defense to document blast exposure history in the medical record of all service members.

We have made significant improvements in this area on how we are treating, documenting, and understanding the effects and causes of traumatic brain injuries. The progress is encouraging. We still have more that we can do and where we can potentially negate the impact of TBIs.

Can you maybe explain to this Committee what the Department of the Navy and the Marine Corps is doing to improve the understanding and prevention of traumatic brain injuries and specifically those coming from blast injuries?

Admiral GILDAY. Ma'am, I can say about 80 percent of the TBI injuries that we see are off-duty related. Because military medicine has benefited greatly from what we have experienced from Iraq and Afghanistan, so we are able to return about 85 percent of those sailors back to work just based on the high proficiency of our medical teams.

Senator ERNST. Very good. I know that in SOF, we are actively baselining many of their members, which is something that we would love to do across the conventional forces as well.

General Berger, would you like to address it, please?

General BERGER. Just three quick parts to that.

First, the protect part, the equipment that we wear, the vehicles, the aircraft, a lot of improvement over the last 3 or 4 years. We have a lot of room still to go there.

Second is the detection part, which you mentioned. Really difficult, which relies wholly on baseline up front, which we do as well. All of us who have been to Iraq and Afghanistan in the last 6–7 years, all baselined. We did not do that the first deployment. I was not either. You have to do that because you cannot measure any change from that.

The last part is the treatment, which the CNO mentioned, and it cannot stop initially. This is an enduring—the impact of that could be lifelong. So it is different than some other ailments, some other issues that we have. We have to treat it as a long-term issue.

Senator ERNST. Thank you very much.

General Berger, you are spot on. It does create complications further down the road especially if we are not treating that TBI.

So thank you, gentlemen, very much.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Jones?

Senator JONES. Thank you, Mr. Chairman.

Thank you to the witnesses for being here today and for your service.

Secretary Modly, I want to ask you about the frigate. You mentioned the frigate as a key element in our future ship fleets. I have got folks down at Austal down in Alabama trying to put together a great design and compete for that contract, but it seems that the process timeline has been a little bit of a moving target. Can you tell us right now where we are in that process and the timeline for the frigate contract award?

Secretary MODLY. Senator, thanks for the question.

The plan had been to award the contract sometime in the latter half of this fiscal year. I have asked Secretary Geurts to look at possibly pulling that forward if everything is done properly and everything is thoroughly vetted and evaluated, and so he is looking into that. So there is some possibility that we may pull that award a little bit sooner.

Senator JONES. All right. Could you let me know if that is the case?

Secretary MODLY. Yes, sir.

Senator JONES. I noticed in the FYDP that it includes only nine frigates, although originally there were going to be 10 in the first block. Does this mean that the total ship procurement is being reduced or just the procurement timeline?

Secretary MODLY. No, sir. I think this is part of the discussion that we have been talking about earlier about the new integrated Force Structure Assessment and how the frigate plays in that. Based on current plans and current thinking, this is where we are. But I anticipate as we look at this in more depth and the Secretary of Defense can get comfortable with it, we are going to look at ways to possibly purchase more of these over time. But right now, that is sort of where we are in terms of our thinking.

Senator JONES. Okay. The total numbers have not changed, just in this first block. Is that a fair statement?

Secretary MODLY. No, sir. Nothing has changed.

Senator JONES. All right. Thank you.

Sticking with Austal for a minute, I would like to talk a little bit about the expeditionary fast transport, the EPF. Can you give me an idea, Admiral Gilday, where those are being used and how they are being used right now, the EPFs?

Admiral GILDAY. So those ships are great. We put adaptive force packages on them, and so some of them are highly classified missions. Others are to move troops or we just used two in an exercise

called Pacific Partnership in the Indo-Pacific where we used them for humanitarian assistance and disaster relief.

The two that we have in the budget—what we are trying to do with those ships is to give them the medical capability where they would actually have a 750-room hospital, as well as 12 operating rooms. Because of the cubic space that you have in those ships, you can really do a lot with them, including their flight deck.

Senator JONES. Well, I am asking because you got two in this budget, but the President just took away one that was set to be awarded I think in April of this year. It was a $260 million contract again. I am curious as to if that particular ship could have been used the same way, why was it taken out?

Admiral GILDAY. Sir, I cannot tell you directly why it was taken out. I know that those decisions were made at a higher level based on strategic priorities, and so I just do not have the direct answer for you on the why.

Senator JONES. All right. I may submit a question because Secretary Esper's answer was just not satisfactory yesterday, especially in light of your testimony today, and I want to emphasize again I just think taking the funds away from our sailors, soldiers, and airmen is just wrong. It hurts our men and women in uniform, and it quite frankly hurts my community in Mobile where we are taking away that because we got a lot of folks down there that are dependent on Austal and the ships that they build.

Secretary Modly, let me just ask you real quick. You mentioned last week—I want to just talk about the 355 ships may no longer be the right number for our force, and you mentioned that it could be as high as 390. Can you kind of give me some ideas of where all this is coming from and how you are making those assessments and what you are looking for?

Secretary MODLY. Well, sir, it is strategy-based. It is based on the threat, what we see the threat that is emerging, how we would want to counter that threat not just in terms of a warfighting scenario but in terms of deterrence and presence. That is what is driving it.

What is driving the change in the numbers is some of the things that I mentioned earlier in terms of the requirement for a new, smaller amphib, a new combat support vessel as well, possibly more frigates, as you mentioned earlier. That is where sort of the numbers are elevating when we start looking at the difference between this and the 2016 assessment.

Senator JONES. All right. Are we going to be able to see that 30-year shipbuilding plan and Force Structure Assessment pretty soon?

Secretary MODLY. I hope so, sir. I have seen it. I just need to make sure the Secretary of Defense is comfortable with it.

Senator JONES. Well, I would encourage you to try to get that to us as soon as possible, please. Thank you.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Perdue?

Senator PERDUE. Thank you, Mr. Chairman.

Thank you for being here.

You know, these concerns and the wringing of the hands about this budget would have a whole lot more credibility if we had heard

that when the three times in the last 50 years we had three Presidents in the late 1970s, in the mid-1990s, and just recently cut our military spending by 25 percent. That is what this is about. Today we are trying to recover. You have done a marvelous job in the Navy and the Marines getting our readiness back. I want to commend you guys for that. Today I want to talk about shipbuilding.

When we get this budget, we are supposed to get a shipbuilding plan. Secretary Modly, when should we expect that?

Secretary MODLY. Sir, I am hoping to get it over here as soon as possible, but frankly, it is not my call. I am waiting for the Secretary of Defense to allow us to bring it over.

Senator PERDUE. I understand.

Admiral Kilby, this week, yesterday, as a matter of fact, did a great job explaining his requirements, Admiral. He talked about four priorities: *Columbia*-class, readiness recovery, lethality, and capabilities we can afford. I respect that.

The question that—I want to highlight the NDS. The 335-ship number was developed in 2016, prior to the NDS. Is the 355 number consistent with the NDS requirements put on the Navy and Marines?

Admiral GILDAY. It is low, sir.

Senator PERDUE. An honest man.

Admiral GILDAY. Thank you, sir.

The short answer. Since the time that that assessment has been done and if you consider the fact that we are integrating much more closely with the Marine Corps and within the joint force, you have to consider not only what we are going to fight with, the capabilities, but also how we are going to fight. That is translated against a threat that has increasing capability into a larger number of ships, a larger number of more capable lethal ships.

Senator PERDUE. It has to do with several things. Right? What is your responsibility against emerging threats. You said that. How are you going to fight the force, and then what kind of lethality you have. So you are working on that we are not hamstrung by INF. We know that China—they out-stick us today. Is that fair?

Admiral GILDAY. In some areas, sir, yes.

Senator PERDUE. Secondly, they have about 350 boats today to our 296 by my math. I think that is correct. If you look at what they have said publicly, by 2030 they will have 425, and if that same gradient goes out, by 2034, which is our planning period behind the current shipbuilding plan, we would be at 355 by 2034. That is the 2016 plan. That may change in the current shipbuilding plan I understand. We have an 80-boat shortage right now, and we have responsibilities in multiple AORs. They pretty much have one. Are you concerned that our shipbuilding plan is not going to be able to do what we need to do over that 15-year period, particularly against the buildup that we see China—they deployed more boats in the last 30 months than they have in the last 30 years. We see their activity. They are telling us what they are doing.

Admiral GILDAY. Yes, sir. So, it simply really comes down to our top line, and that is our biggest constraint in terms of growing a bigger Navy. Since I have been in uniform, the size of the United States Navy has been dwindling. Over the last few years, we have

come up in numbers a bit, but not a lot. We believe, based on the NDS and for all the reasons we just stated, that it is time to reinvest in the naval force.

Senator PERDUE. And it would be one thing if we could fund it. What I am worried about—let us take submarines, for example. Your number one priority is *Columbia*-class. I am proud that Georgia hosts one of the two nuclear bases that hosts those. But we lost in the last decade 17,000 submarine vendors, down to 3,000 vendors. Even if we were to push the money toward this goal to get to where we need to be, can we rebuild the supply chain fast enough to accommodate that?

Admiral GILDAY. Sir, based on what we know, we think we can. Based on what we are projecting in terms of submarines, as an example in terms of what we are procuring, that vendor infrastructure is in place to support that.

Senator PERDUE. Can I move on to one other thing? The Air Force is developing ABMS right now, and it looks like they have had one demonstration across the services. I think there is another one coming up in April. How involved is the Navy in looking at this from the service needs, as well as the data that the Navy will be creating? Obviously, as I understand this, this is a very classified development. Can you give us an update about the Navy's involvement and the Marines' involvement on that?

Admiral GILDAY. Sir, so the problem set is that we have netted weapons and we have netted platforms and netted C2 nodes, but we do not have a net. All the services have come together under a concept called joint all domain C2, and we are putting heat on it, a Manhattan Project like effort, so that we are not delivering this in the mid-2030s but in the 2020s. All the Joint Chiefs are flying out to Nellis in early April to take a look at this together to make sure we understand how we are going to get after it.

Senator PERDUE. Thank you so much. Thank you, sir.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Heinrich?

Senator HEINRICH. Thank you, Chairman.

Secretary Modly and Admiral Gilday, I am quite encouraged to see the priority that the Navy continues to place on hypersonic weapons. As you know, Sandia National Lab has played a critical role in developing this technology over a number of years now. How would you characterize the combined Navy and inter-service effort to transition hypersonic glide bodies out of the labs?

Secretary MODLY. Well, thank you for that question. I actually was in Sandi a few months ago and got to see what they are doing out there, and it is really amazing work. I am actually very encouraged about the fact that we are working together with the Air Force and the Army on this because it is an expensive proposition, and we need to pool our resources and our brain power to get after it. So I think that the progress is good.

We have asked for a significant step up in funding this year in order to do this. As I look at the test schedule, it looks aggressive, but I think it is doable.

So that is probably all that I can talk about in an open forum. I would be more than happy to come over and have our team brief you on how we are doing on that.

Senator HEINRICH. Would there be value in collocating the development and the production of those capabilities so that we could fully leverage synergies, expertise, and frankly shorten the feedback loop in that transition from development to production?

Secretary MODLY. Well, I think anything that we can do that can accelerate the process of getting these fielded would be important. I think one of the biggest challenges we have right now is not the technology and how to develop these missiles, but it is the production. How do we get this into scale over time? And that is a challenge because we do not have an industrial base that can really do that right now. So, we are looking at ways that can help accelerate that through some incentives, et cetera to put some funding out there so that we can accelerate the creation of the industrial capacity to produce at scale.

Senator HEINRICH. Well, I hope you will consider us a partner in that effort.

I want to switch gears now to the Navy has been conducting live fire tests of its experimental electromagnetic railgun at White Sands Missile Range in New Mexico over the past year. But the fiscal year 2021 budget includes pretty minimal funding for this capability. What is the Navy's plan to continue developing this program and, for that matter, to mount it on a ship for at-sea testing as well? Admiral?

Admiral GILDAY. Yes, sir. So the testing is going rather well. What I would like to do, sir, is come back to you in a classified setting and talk to you in more detail about where we are with that and where we want to go.

Senator HEINRICH. Okay. In this setting, can you comment on the resourcing in this particular budget?

Admiral GILDAY. Sir, the resourcing right now we think is adequate based on the amount of effort that we have ongoing. So, we saw more money in the budget last year based on what we needed to do in terms of R&D, but we are more at a steady state at the moment going into 2021.

Senator HEINRICH. Okay.

Let us talk *Columbia*-class for a moment. I think this Committee understands the importance of that modernization to the nuclear triad. What are your contingency plans if the Navy does not make the already very tight timeline for *Columbia,* and where would you accept risk?

Admiral GILDAY. Sir, that would be best handled in a classified setting. I will say that we have had those discussions with the Secretary of Defense, and you cannot just consider one leg. You have to consider the triad and how you balance risk across that triad based on challenges you would face in the modernization efforts across each of those legs. We are having those discussions, sir.

Senator HEINRICH. Thank you, Chairman.

Chairman INHOFE. Senator Tillis?

Senator TILLIS. Thank you, Mr. Chairman.

Gentlemen, thank you for being here and for your service.

General Berger, I will ask you just one detailed question. I got a few others hopefully I will have time to get to.

With some of the military construction money—I think it was somewhere around $40 million—affecting Camp Lejeune as a result

of the executive order, I understand there were two projects down there that have been pushed somewhat to the right. Can you give me the current status of those projects and whether or not we are in any critical timing in terms of backfilling the funding?

General BERGER. I am familiar with both projects. Both were deferred. We will have to postpone the second radio battalion building and the second project as well. Right now, not critical, but if they got pushed farther, then it would become a significant issue.

Senator TILLIS. If I could get just for the record specific dates on when that really hits the critical path, I would appreciate it. Then-Secretary Spencer assured me that it was not a challenge now, but it could be. I would like to know the specific timing. Thank you for that.

Now, I have got something that would be for Admiral Gilday and you, General Berger, and maybe the Secretary as the tiebreaker, and it is the discussion we are having with FRC East [Fleet Readiness Center-East], getting the funding to be best prepared for the F–35. We have got a bit of a stalemate there. We made some progress with the security fence with the lift fan facility, but a lot of the infrastructure is sort of Navy-owned facility, marine requirement. Every time I ask a question about who is going to actually own that and how we are going to get the funding, I get you need to talk to the Navy or you need to talk to the marines. Do we have a definitive answer on that and where this sits on the priority list?

Admiral GILDAY. Sir, I can say that FRC—of our three, it is part of the optimization plan that we have, and we are putting money against all three of those facilities right now.

With respect to the potential finger-pointing, I would like to get you a deeper brief on that. The Commandant and I, our staffs can come together, and if there is an issue, we will definitely resolve it.

Senator TILLIS. You answered my question before I asked it. What I would like to do, if we could, is just in a meeting, if we could get the stakeholders in the room and I can get a definitive readout, I would appreciate that. So I have your commitment to making sure that happens.

Admiral GILDAY. Yes, sir.

Senator TILLIS. Thank you very much.

General Berger, you mentioned about some of the review that you are doing for the acquisition programs review. What is the current status of that? When should we see a report out?

General BERGER. We are done the first part of it, Senator. The next step is for me to explain where we stand with the chair and Ranking Members of the four Committees here, and I will do that this weekend next if we can get through the scheduling part of that.

After that, then we will obviously go broader in terms of explaining the details. But it is important that I explain to those senior leaders in Congress first what the outcomes are. We are done the first part.

Senator TILLIS. Okay. Thank you.

Because my time is going to expire here fairly quickly, I am going to submit some questions for the record about end strength,

a few other questions. We will just look forward to hearing back from you.

In my remaining time, I would like to talk about military housing. We have spent a lot of time and effort to make sure—on the one hand, we were concerned with the nearly $40 million that is sliding to the right. On the other hand, we have succeeded in getting billions of dollars down to help with recovery.

What is the status of that recovery, and specifically, how is the military housing situation? I will let you know and everybody else that I will be doing another town hall down there to hear directly from the military families. I think that is very helpful because for some strange reason, I announce it 6 weeks in advance. All the service requests tend to be done by the time I get there. But I am hoping they are beginning to do it on a more consistent basis. So if I can get an update on both those projects, recovery with respect to Camp Lejeune broadly and then specifically for military housing.

General BERGER. Camp Lejeune broadly. First of all, the town halls are—you are spot on. Unannounced is better and you are going to get unfiltered kind of feedback from families, the way it should be, the way that we want them to be. So I thank you for that because it takes time.

On the housing, there are about 520, give or take, empty family housing units at Camp Lejeune that the private partner owns. Some of them are reparable; some are not, and that is part of the discussion that goes on right now, not negotiation, but the dialogue between the Department and the vendor about what to do about the 500 vacant houses.

There are about 15 families—I think 15—right now that remained in damaged homes at their choice. We offered to move them. They elected to stay there. The damage, in other words, from the hurricane—they were okay because they are going to move anyway, so they just stayed. So we allowed them the choice either way.

The funding for the last two tranches of supplementals—all of the, I think, $837 million from last year put on contract. So far, I think about $157 million this year. We will be able to obligate all that you provided from the second tranche in this fiscal year. So I think by the end of this fiscal year, both tranches will be fully under contract.

Chairman INHOFE. Senator Kaine?

Senator KAINE. Thank you, Mr. Chair.

Thank you to the witnesses for your service.

I wanted to just pick up on a point that Senator Perdue made a few minutes ago. He expressed some concern about hand-wringing over the budget and said, you know, I wish I had seen concerns in the past when budgets were being cut, and look, to the extent that Congress has done bad things in budgets in the past, we need to own it. My first speech as a Senator in February 2013 was a speech on the floor saying we should not do the sequester and budget caps. It is a bad idea.

I think the reason there is hand-wringing now is that Congress has learned our lesson and we are trying to do good budgets for the military, and what we are seeing is the drain of billions of dollars out of the budget for a non-military emergency at the southern border.

Here is what we are doing within 1 year. Within the last year, the administration took first $6 billion, $3.5 billion from MILCON and $2.5 billion from other programs, into the counter-drug fund to use for the wall. So that was $6 billion out of the DOD budget.

The administration has now announced another $3.8 billion that is being cannibalized out of various accounts, put into the counter-drug fund. So now that $9.8 billion.

Yesterday Secretary Esper in the hearing announced that there will likely be another tranche taken from MILCON. It has been reported that would be $3.7 billion, but just round it down and say that number is too high. It looks like the total within a year will be $13 billion, more than a billion a month taken out of Congress' appropriated budget for your needs, for the nation's needs to use for a non-military emergency that is not mentioned in the National Defense Strategy.

Let me just put that into context. What does $13 billion mean to seapower, to our Navy and Marines' $13 billion. It is one carrier or it is four *Virginia*-class subs. We are arguing about whether there should be a second sub this year. Thirteen billion bucks in a year is four subs. It is six destroyers. It is four amphibious assault ships. Senator Hirono asked about the shipyard industrial optimization plan. That 20-year plan is $26 billion. So the $13 billion would be half of the 20-year plan to modernize our shipyards.

Or the other way to look at it is when you all submitted your budget this year, you submitted the amount of unfunded priorities you have. That total unfunded priority list for the DOD is $17 billion. Thirteen billion dollars in 1 year taken for a non-military emergency when your total unfunded priority list is $17 billion.

I am going to state right now if there is a Democratic President who tries to take money out of the DOD for a non-military emergency, I am going to say go get it through the appropriators. Do not ransack the Pentagon's budget for a non-military emergency. I stood up against Democratic or Republican Presidents if I thought they were taking us to war without coming to Congress. I am going to stand up against the Democratic President who tries to raid the Pentagon budget for non-military emergencies.

You are here saying we are trying to be focused on the National Defense Strategy. It is resource-tight environment. It is sort of hard to take that at face value when we are allowing $13 billion to walk out the door for a non-military emergency in 1 year.

I want to offer you a compliment, General Berger. You made I think a challenging call but the right call recently when you announced that Confederate paraphernalia would be removed from Marine bases as just a good order and discipline. I saw that announcement and as a Virginian with a child in the Marines, I applaud that leadership move.

Secretary Modly, I want to ask you to share a story that you shared with me with all my colleagues. Secretary Modly was in the Federated States of Micronesia recently, and this is a story about United States and China, what we are doing. Micronesia is a really important asset for us, where it is situated in the Pacific. Just share what is happening in terms of United States investment versus Chinese investment from your recent visit, if you would.

Secretary MODLY. Sir, thanks for remembering the story.

I was there about a year ago, and I made a trip through several of the Pacific islands. I went to Micronesia and went to the far side of the island, and there was a Navy Seabee team there, a great group, 24 Seabees building a school for the local citizens there. Very traditional construction, concrete pilings, corrugated steel roof, plywood sides, making great relationships with the locals.

As you leave this facility and you drive down the street, there is a big sign. Micronesian Agricultural Center being paid for and built by the People's Republic of China, and it just gave me the impression that in some of these areas where we have traditional long-term friendships with these nations who want us to be their partners and we are playing small ball.

Senator KAINE. We removed all Peace Corps volunteers from Micronesia in 2017 and from Palau.

Secretary MODLY. Yes, sir. In the embassy building there, I saw a bunch of signs for the old Peace Corps, and I said why are these here? They said, well, we shut down the Peace Corps here. They had been there since the beginning of the Peace Corps, and people in Micronesia know Americans because of the Peace Corps.

So it may not extend to the entire Pacific region, but it was an example to me of particularly how we need to step up our involvement there not just militarily, but in other ways.

Senator KAINE. Thanks for sharing that story.

Thanks, Mr. Chair.

Chairman INHOFE. Senator Scott?

Senator SCOTT. Thank you.

F*irst of all, I thank each of you for your service.

Secretary Modly, thank you for engaging with us after the terrorist attack in Pensacola, trying to come up with the right plan to make sure this does not happen again. I will be talking on the floor today about the three individuals that lost their lives there, and it was devastating to them, their families, but also to that base and that community. But thank you for engaging with the sheriff and everybody down there.

We had a hearing yesterday. Senator Ernst chaired a hearing on the Emerging Threats and Capabilities Subcommittee, and we talked about Pensacola and what can we do differently. My concern is that we went right back to normal work pretty fast. We talked about it. Twenty-one students got sent home for a variety of things, and we are now vetting differently. But should we have a complete reset of the program so we know it is not going to happen again? We got 850 Saudi students here and we want to build our relationship with Saudi Arabia. I talked to the Saudi Ambassador and said the worst thing for you would be if we had another instance like this soon. I mean, I think the American public would be up in arms. You cannot keep doing this.

So I am working on a proposal with Senator Ernst that—and I would like to get you all's feedback, but how to vet the students, how to give them the right kind of visa, and make sure we are not doing programs here that we could do in another country less expensively and with less risk.

So what do you all think about the fact that we still have—and we have—what—5,000 students from around the world there. But my focus right now, because of what happened at Pensacola, is the

Saudi students. Very few were actually sent back. Are we really able to do a real vetting process of the ones we still have here? Are we vetting their families? How safe are our bases?

When I was in the U.S. Navy, I never would have thought that there would have been any risk on the base I was on.

Secretary MODLY. Senator, thanks for the question.

I think we are doing all we can I think to step up the vetting process for these students and to have a better sense for not just vetting them before they come in, but to develop some process in collaboration with those countries to perform more continuous vetting particularly of social media or some of the things they are doing that does not require us to do anything illegal to do that. We can monitor things that are in the public sphere. We just have not applied the resources to it, and we are looking at a variety of different ways that we can do that.

One of the key elements I think also is part of the purpose of these programs is to bring these people in and have them understand us as a nation better. I do not think we are doing such a great job with certain countries in bringing them in, sponsoring them, having local families getting to know them, particularly with the Saudi students because there were so many of them. They were very insulated and not really a part of the broader community, and so we have to really focus on that as well.

Senator SCOTT. So do you think you will be able to measure? Because that is what I have been told. I have been told that in many of these countries, like they said, you know, if it is an Italian student, that everybody get to know him and there are long-term relationships. But I have not talked to anybody in the military to date that says they have a long-term relationship with somebody that was a Saudi student. They might have it later if they are in the position of leadership, but based on the relationship as a Saudi student—I mean, I have not talked to anybody in the military that has one. So it makes you question why are we doing this and having this risk.

How are you doing dealing with families that come? Are we vetting them, and are we continuing to vet them when they are here?

Secretary MODLY. I think that is all part of the process that we are doing in terms of getting a better understanding of who is coming in, what their backgrounds are, and just doing it a little bit more—a little deeper dive into that than we used to do.

Senator SCOTT. Well, I look forward to working with you. We have been working with Senator Ernst and some others about coming up with a better way to do it to make sure these bases are safe. So thank you very much.

Chairman INHOFE. Senator Peters?

Senator PETERS. Thank you, Mr. Chairman.

Thank you, gentlemen, for your testimony here today.

General Berger, you have discussed the need for an appropriate balance between manned and unmanned systems, including incorporating unmanned aerial combat vehicles and low-cost attributable aircraft technologies into the Marine Corps. In a commentary you authored for War on the Rocks in December of 2019, you listed 11 naval expeditionary capabilities and capacities that support fleet operations, which the Marine Corps is under-invested

in. Notably, that list started off with three different types of unmanned platforms for every physical domain in which you fight. I agree with your assessment and know that we will need a mix of fifth generation manned platforms like the F–35 that provide a stealth capability, along with an array of sensors teamed with unmanned systems that can address survivability challenges and further confound our adversary's decision-making through these new technologies working together.

The Marine Corps stated requirements for the manned F–35 is certainly a matter of record, but I have not seen your requirements for lethal unmanned systems. Do you still intend to pursue a large number of lethal unmanned aerial systems per your Commandant's Plan and Guidance and recent public remarks? And if so, can we expect to see those desired capabilities articulated in the next Marine Corps aviation plan?

General BERGER. The homework that went behind what are we going to need in the future that we spoke of before that both the Navy and the Marine Corps have worked on for the past maybe 8–9 months drove me towards that conclusion.

Will see it in the next budget, and will we see it in the next AVPLAN, aviation plan? I do not know. I think yes, but the first step would be to figure out how you are going to fight and then reorganize the Marine Corps for that purpose, which we have to do, which is part of the rounds that I need to make to the senior congressional leadership to explain that part to them. I would hope that it is in the 2022 and 2023 budget, yes, sir.

Senator PETERS. Great. Thank you.

Secretary Modly, the National Defense Authorization Act for fiscal year 2020 requires you as the Secretary of the Navy by January 31st of 2023 to—and I am quoting from the law—publish a military specification for a fluorine-free fire-fighting agent for use at all military installations and ensure that such agent is available for use by not later than October 1st of 2023. I would like to note that although it is October 1st of 2023, of course, you are free to publish it before that time, and we would encourage you to do that.

It is my understanding that there are large-scale commercial airports around the world that have adopted PFAS-free fire-fighting agents already. I recognize the military context is different and it is essential that we put the safety of our men and women first and foremost, number one. But I am optimistic the Navy will be able to find an appropriate solution given what is happening around the rest of the world.

Could you provide us with an update on the progress towards publishing that specification and what work has been done to date on that effort?

Secretary MODLY. I share your optimism on that. I think we will figure this out. It is a global challenge, as you mentioned, in the United States specifically as well. All of our fire-fighting civilians, our fire-fighting folks use this material, and it is a challenge for us. However, there is a lot of attention in the scientific community looking at this. Our Office of Naval Research is looking at this, and I am confident we will come up with an answer on this. So far, we have not, and so particularly on our ships, we are continuing to use

it. But my sense is that we will make progress on this and we will get an answer.

Senator PETERS. And I am sure you are working with our allies who are also actually deploying some of these agents. So I appreciate that.

General Berger, last question. For the defense technology and innovation industrial base in this country in the remaining seconds here, what would be your message on the technologies and capabilities to pursue and invest in that you are going to want to require for the Marine Corps in the future?

General BERGER. First is the how part. I think we need to be better listeners than spend a year or two developing a detailed set of requirements and dump it on industry and then ask them, what do you think. That collaboration has to start from the very beginning, and it is much better than it was, I would say, 5 years ago.

What do we need? We need, from the individual marine to the small unit, things that make them more survivable, more effective and lethal in a very austere environment without the big logistics tail behind them, which has been our challenge so far, because we assume that that logistics tail like the command and control, that the threat is going to go right after it. They are going to go after those two aspects of our warfighting capability. So, it has got to be tools that a marine can use forward, can fix forward, not call a contractor, but he can sustain them forward, he can repair them forward, and that is not so logistically burdensome that it is really difficult to keep that unit reinforced forward.

Senator PETERS. Thank you.

Chairman INHOFE. Senator Sullivan?

Senator SULLIVAN. Thank you, Mr. Chairman.

Gentlemen, it was great to see you three at the Army-Navy game. I was going to comment about the result when Senator Reed was here, but since he left, I thought I would leave it at that.

General Berger, I want to compliment you on the Commandant's Plan and Guidance. I read every word of this. It is outstanding, innovative, bold. I want to thank you and your team for the exceptional work that you put into that.

One topic I wanted to briefly discuss, General. I have had good discussions this week both in meetings and then in the hearing that the Secretary of Defense and Chairman had yesterday on the force posture that we have in the Asia-Pacific given the National Defense Strategy, including the DPRI that has been a subject of a lot of focus of the Marine Corps for I think 2 decades now. They are very focused on a broader strategic look that can sustain our force posture and strategy for the next 50 to 100 years, which I think is important. You may have seen in the NDAA that was just passed, 2019, there is a provision that says we need to do that as well. The Secretary of Defense, Chairman of the Joint Chiefs. The marines will be critical in that.

Can you briefly comment on your thoughts on that?

General BERGER. Thanks, Senator.

I do not want to speak for you, but I have heard you speak before that—and I have said the same—we are postured perfectly out there for another Korea in 1950.

Senator SULLIVAN. Or the end of World War II, which is where our force posture——

General BERGER. That is exactly right. It was an ideal posture for that, not ideal for what the National Defense Strategy outlines as the major threats going forward in the Indo-Pacific. So, we have to adjust it. I do not see any alternative.

Senator SULLIVAN. Well, the Secretary and the Chairman were very bullish on looking hard at this as well, and I know the Marine Corps has done some good work on this, and we want to help you—I mean, not help you, but work with you. This Committee has been very interested in this issue from Senator McCain to Senator Inhofe and myself. So, we will look forward to working you on that.

I want to turn to the Arctic. Senator Kaine and I had a Readiness Subcommittee hearing this week, quite a good hearing. I want to compliment the Navy and the Marines on their recent Arctic expeditionary exercise out at Adak and Seward, difficult training. I know that was not easy. Crappy weather. But clearly the Arctic has become a theater of great power competition. I have a slide that I think some of you have seen. This is the Russian buildup in the region—and it is not just forces. It is ports and airfields and infrastructure to have force power projection. We do not really have much there.

I want to give you sense of questions here, three questions, and then, Mr. Secretary, maybe you can take this on.

You know, the DOD Arctic strategy says there should be FONOPs. I do not think we have the capability right now. We have two icebreakers. One is broken. The Russians have 54. There are also twice now mandates to look at strategic Arctic ports, which have kind of been ignored by the Pentagon, and General Neller had some plans in addition to what was going on in the region with regard to the Marines in the Arctic.

Can the three of you just discuss these? Mr. Secretary, maybe we will start with you.

Secretary MODLY. Yes, Senator. Thanks.

I recently within the last 2 weeks had a conversation with Secretary McCarthy and Secretary Barrett about how the Navy and the Army and the Air Force Departments can get together to come up with a combined strategy in terms of basing, presence, et cetera to address this Arctic challenge. Clearly your home State would be critical to this in terms of where it is strategically located. So we are developing this team now to take a look at this, and obviously, once we get that assembled, we would love to come over and talk to you about it.

Senator SULLIVAN. Good. I appreciate your initiative on that. I got your note. So, thank you very much on that.

Admiral, any thoughts on the FONOPs? We have talked about this before. I have a—I think I have mentioned it to you in hearings—but a proud history in my family, five uncles and great uncles who served in World War II, including my great uncle Tom who was a lieutenant in the Navy and did three Murmansk runs. I worry that we do not have that capability right now, no ice-hardened ships.

Of course, this Committee has authorized the purchase of six polar class icebreakers, which is a start. But without any kind of

strategic port—and we do not have anything near the Arctic. The closest thing is Anchorage. That is 1,500 nautical miles away. We cannot project power and we need to defend our strategic interests, particularly the Navy.

What is your thought on that, sir?

Admiral GILDAY. My thought on that is that I think if we are going to talk about force structure, infrastructure in Alaska, I really think like DPRI it has got to be a subset of a broader INDOPACOM strategic lay-down.

Senator SULLIVAN. I agree with that.

Admiral GILDAY. From a joint perspective, we are making the right decisions.

Then secondly, with respect to operations in the Arctic, ICEX right now, two United States submarines, one British submarine, we are just on the tail end of an exercise with the Norwegians—the Navy and the Marine Corps—as well as another multinational exercise ongoing. We are seeing an increasing drum beat of operations in the high north. I think we need to continue that. I think that FONOPs will be important. I think that the Bering Strait will become as strategically as important as the Strait of Malacca or the Strait of Hormuz at some point.

Senator SULLIVAN. Putin certainly thinks so.

Admiral GILDAY. Yes, sir, based on what is going on with the icecap.

So it is getting more focused, sir. I do think that taking a pause and looking at it strategically would be a good move.

Senator SULLIVAN. Thank you.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Duckworth?

Senator DUCKWORTH. Thank you, Mr. Chairman.

Secretary Modly, I want to follow up on a conversation I had with General Lyons of TRANSCOM last week. When discussing sealift readiness, he stated that our current readiness level was lower than where it needed to be, but noted that TRANSCOM is working to recapitalize sealift capabilities. We agreed that while sealift is just one of the Navy's many requirements that you must balance, it is essential for TRANSCOM to be able to do its job and help get our forces to the fight when we need it.

General Lyons raised a possibility with me of using the National Defense Sealift Fund to make progress towards our sealift recapitalization goals. But I believe that the Navy has not added anything to that fund since fiscal year 2019. Could you please share your view on reinvigorating the National Defense Sealift Fund? If you disagree with that approach, what would be the alternative approach of prioritizing recapitalization of sealift capabilities?

Secretary MODLY. Senator, I absolutely agree that we have to recapitalize our sealift capability. Where the funding comes from is the challenge for us. This is another one of these pressures that we have in the Department of the Navy particularly because we are reaching a point in history where we have to recapitalize our nuclear deterrent, at the same time recover from some pretty big holes in readiness, and also do this, which is to recapitalize our sealift. So we are making choices. We are making some trades, but we are going to need some help I think from a budget perspective

to be able to do that as aggressively as I think the TRANSCOM Commander would want us to do.

Senator DUCKWORTH. What do you think about using the fund as an avenue for——

Secretary MODLY. Senator, I do not that the fund has funding. I do not know if it is similar to the Strategic Deterrence Fund that we have as well that is a fund that gives us some authorities but it does not really have any funding attached to it. So I will have to get back to you on that specifically in terms of what is there or what we need to put into it.

Senator DUCKWORTH. Okay. Thank you.

I was disappointed that this year's budget baseline proposal omits key investments in sealift and logistics that we should be prioritizing now, and we sort of talked about this. As you said, there are a lot of unfunded priorities, but the list of unfunded priorities includes tens of millions of dollars for emergency repairs to sealift ships identified by TRANSCOM and advanced communications gear for the military sealift command ships.

Then in your February 18 memo that kicked off the Navy's stem to stern comprehensive review, you highlighted naval logistics as an area that could be, quote, streamlined when searching for billions of dollars' worth of savings.

So can you help me reconcile this? How can it be a priority but then you are talking about this where you can cut? Or am I misunderstanding what you mean by naval logistics would be streamlined? I mean, how do you plan to build up and sustain a growing fleet of ships without prioritizing a strong logistics network? Who picks up the slack?

Secretary MODLY. Well, Senator, I think that particular memo went out to the entire Department of the Navy to look at every possible way that we can look at doing things better and more efficiently. I do not think anyone would argue that our Department from a logistics and supply chain is world class with respect to cost, distribution, the business systems that support it. We have multiple redundant business systems, and every one of them takes a budget line every year. So, we have to think about how we can do this better, more efficiently, more closely approximate some of the advances that have been made in supply chain management in the commercial sector over the years, and that is what I was talking about when I talked about logistics. Logistics demands are going to keep going up. If we keep doing it the way we are doing it now, it is going to cost us way too much.

Senator DUCKWORTH. We understood and agreed with that. On the other hand, we need to make sure that we actually put further investments in our logistics capabilities. We are not talking with just sealift but also heavy lift aircraft. We also need to be talking about how we project fuel forward. Everything that sucks gas needs fuel. If we are going to be present in the Asia-Pacific region, then we need to be able to project into the region beyond the first 72 hours, and so that is a real concern that I have.

Thank you. I yield back, Mr. Chairman.

Chairman INHOFE. Senator Hawley?

Senator HAWLEY. Thank you, Mr. Chairman.

Thank you, gentlemen, for being here. Thank you for your service.

General Berger, let me start by saying that I really want to applaud your decision to refocus the Marine Corps on the sea denial mission. So thank you for your leadership in that area. Thank you to you and your staff for keeping Congress informed and on board with this as you have led the Marines in this new direction. Thank you very much for that.

Let us talk a little bit about Fort Leonard Wood in my home State, if we could for a second. General, Admiral Gilday, Fort Leonard Wood has had the opportunity to train many of your marines and sailors at its engineering, police, and CBRN schools. Can you give us a sense of how this opportunity for joint training has benefited your respective services both from a training and resource management standpoint?

Admiral GILDAY. Senator, not in detail except that I have not heard any problems.

Senator HAWLEY. Well, that is good.

Admiral GILDAY. But I cannot comment on that training.

General BERGER. Just a couple words, sir.

First, the Marine Corps is the smallest service, sir. We do not own all our schools. Most of our marines go to other service schools.

The benefit in the particular case you are talking about is you are learning the trade to a military occupation, but it is a trade. You are learning alongside somebody you are probably going to serve with later on from another service. So, the benefits are, one, you do away with the myths. Two, there is some standardization in how engineers operate, how military police view a problem because you are operating side by side. You are not in four different schools doing it.

I think for us there is an economic benefit. We cannot afford our own school. Two, the standardization thing is great, and three, it may be the only time, but if not, it is the first time they are going to operate alongside somebody from another service. So it tamps down all the myths about them.

Senator HAWLEY. Very good. Thank you for that. We are, obviously, very proud of Fort Leonard Wood and the work that they do there. I am glad that they are serving you well.

General, back to sea denial, can you give us an update on your rogue fires and ground-based anti-ship missile programs in terms of where they are now and their timelines for fielding?

General BERGER. Both of the capabilities you speak of in war games and in simulation have proven—game-changer is probably an over-the-top characterization, but it definitely changes the calculus of an adversary because right now that capability is something we do not have, and posed with that, they have to act differently.

Rogue fires in particular, on a great glide path. We are investing in it. Who knows if that is the solution 10 years from now, but we are going down that path right now.

Ground-launched cruise missiles and everything long-range precision fires that is in a small enough format that a small marine unit can embark it, can use it, we are after it. Yes.

Senator HAWLEY. Very good.

From an ISR and C2 standpoint, what would you say, General, are the most important programs for ensuring that Marine Corps fire units have the targeting data they need to perform the sea denial mission?

General BERGER. Some will say—and I think there is logic to that—that they are kind of agnostic. I do not care where I get my fire data solution from or what ISR platform. I just need the data, and there is truth in that.

On the other hand, we need organic naval ISR so that that expeditionary naval force that is operating either in EUCOM or in the first island chain or wherever has the means to pick up the targets forward in an expeditionary manner, and they got to be able to launch and recover from naval platforms, from shore, and they got to be small enough, if they are going to be embarked with us, that we can sustain them. Right now, we have used MQ–9's for the last year and a half in Helmand province in Afghanistan as a learning platform for us, how to close that kill chain organically.

Senator HAWLEY. Very good. Thank you.

Secretary Modly, Admiral Gilday, I will come back to you. Admiral Davidson recently testified that about half of his attack submarine requirement—only half—is being met in the Indo-Pacific and a problem that he forecasts will worsen in the 2020s as our attack submarines are retired faster than they are being replaced. Talk to us about this. How is the Navy planning to mitigate the anticipated shortfall here in the Indo-Pacific in particular?

Admiral GILDAY. Senator, we are buying submarines at the rate that both Electric Boat and Huntington-Ingalls can produce them. So we are buying at the maximum output right now with the exception of the fact that one submarine dropped from the budget in 2021.

It really comes down to a ruthless prioritization. So we are meeting the Secretary of Defense's direction for the numbers of ready submarines to get to sea, and we have been doing that. Then it really comes down to prioritization principally between Russia and China in terms of how those submarines are then allocated across the combatant commanders and employed.

Senator HAWLEY. Let me just ask you finally, Mr. Chairman, aside from growing the submarine force, are there other investments that are needed to extend our undersea warfare advantage?

Admiral GILDAY. Unmanned, and so we are making great gains in unmanned under the sea.

Senator HAWLEY. Very good. Thank you.

Thank you, Mr. Chairman.

Chairman INHOFE. Thank you, Senator Hawley.

We thank all three of you for the time you spent with us. Excellent testimony.

We are adjourned.

[Whereupon, at 11:32 a.m., the Committee adjourned.]

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR THOM TILLIS

MCAS CHERRY POINT & FRC–EAST

1. Senator TILLIS. Admiral Gilday, there appears to be some disagreement between the Navy and Marine Corps over who is responsible for paying to upgrade facilities at FRC–East [Fleet Readiness Center-East]. I am concerned this argument is delaying progress. Which service is responsible for funding the needed construction and modernization efforts at FRC–East and how will you lead in the department to make sure that the necessary investments are made?

Admiral GILDAY. The Navy is working with the Marine Corps to solve this critical issue. The Navy's January 2018 Fleet Readiness Center (FRC) Infrastructure Optimization Plan (IOP) Report to Congress laid out a ten-year ~$3.5 billion Department of the Navy (DON) plan for both facility and equipment investments/improvements. The plan includes future projects for F–35 aircraft heavy maintenance: the modernization and restoration of two existing facilities at FRC–SW, a maintenance hangar at FRC–East, Cherry Point, NC, and a second phase project for this hangar. The Navy's Strike Fighter procurement plan is a mix of 4th and 5th generation Strike Fighters to provide complementary capacity and capability from our flight decks that is needed to meet the threat through the 2030s. The Navy plans to procure up to 273 F–35C aircraft. The USMC is transitioning to a 100 percent 5th generation aircraft fleet to support Marine Aviation operational needs. The USMC plans to procure up to 420 F–35B/C aircraft (F–35B: 353 / F–35C: 67). The Navy is working with the USMC to evaluate the appropriate service MILCON cost share based upon utilization and the best timing for these projects within the entire DON portfolio. In the interim, capacity is being expanded within existing FRC spaces to conduct required F–35 maintenance. The Department of the Navy is committed to the success of the F–35 and has funded the F–35 Support Equipment Storage Facility, F–35 Training and Simulator Facility, F–35 Flight Line Utilities Modernization Phase II, and F–35B Vertical Lift Fan Test Facility at MCAS Cherry Point.

2. Senator TILLIS. Admiral Gilday, we've been at a costly stalemate with FRC–East, so I'd like to set up a meeting with the primary stakeholders from the Marine Corps and Navy to finally identify the sticking point on this.

Admiral GILDAY. The DON is optimizing F–35 depot maintenance as evidenced by the F–35 Lift Fan test facility at Cherry Point, NC. The Navy and Marine Corps stakeholders are currently meeting to discuss and resolve this issue. Once DON approves the plan, we will provide the Committee an update. We look forward to the opportunity to discuss FRC–East and its support to Navy and Marine Corps aviation.

COMMUNICATION SPECTRUM—5G NETWORKS

3. Senator TILLIS. Admiral Gilday, Secretary Esper said, "DOD is willing to share spectrum with 5G networks in the "Mid-Band" (3 to 4.2 gigahertz). What systems does the Navy have that might be affected and how could it impact Homeland defense?

Admiral GILDAY. The Navy uses this frequency range for both Air Defense and Ballistic Missile Defense in support of maritime operations and homeland defense. There are at least nineteen USN/USMC capabilities, to include every major capital ship, that use this band in accordance with current spectrum allocation. We will work closely with DOD, FCC and industry on a sharing partnership that supports the Nation's 5G goals while also ensuring the hundreds of billions of dollars invested in national defense are not wasted. We can provide more details at a higher classification upon request.

4. Senator TILLIS. Admiral Gilday, if DOD was required to "vacate" or leave that band of the spectrum instead of sharing, what are the potential dollar costs to the military?" How long would it take to move to a different area of the spectrum?

Admiral GILDAY. Moving capability from one band of the spectrum to another assumes that frequencies can be identified to relocate. There are at least nineteen USN/USMC capabilities, to include every major capital ship, that use S band and they are all highly-sophisticated weapon systems that took decades and hundreds of billions to develop. We would expect many decades and billions of dollars to re-engineer systems. We will work closely with DOD, FCC and industry on a sharing partnership that supports the Nation's 5G goals while also ensuring the hundreds of billions of dollars invested in national defense are not wasted. We can provide more details at a higher classification upon request.

5. Senator TILLIS. Admiral Gilday, can you describe some of the ways that the Navy relies on spectrum to support warfighter requirements? What are some of the future spectrum warfighter requirements that will be essential to competing with Russia and China on a future battlefield?

Admiral GILDAY. DOD considers the electromagnetic spectrum (EMS) to be both a tool for communications, and a weapon to control our adversaries' use of the EMS. In other words, spectrum and its use is vital to the defense of our nation and national interests, and those of our allies. The Combat, Communications, Command and Control over spectrum is foundational to all aspects of warfighting. The Navy and Marine Corps use the EMS, from Extremely Low Frequency (ELF) to Extremely High Frequency (EHF) to detect, track and attack the adversary. The implementation of EMS via command and control supports our own national interest, and those of our coalition partners and their forces, to fight, spoof and otherwise manipulate our adversaries. The criticality of spectrum to Navy/DOD missions cannot be understated. As the United States pursues further sharing arrangements with the commercial world it is essential we have full Congressional support in protecting Defense only spectrum in order to ensure national security.

Our Naval Forces' ability to support diverse operations and crises is dependent on their ability to use the EMS for offensive and defensive purposes, e.g., intelligence; communications; position, navigation, and timing; sensing; command and control (C2); cyber, electronic and kinetic attack; air, space and surface ranging; unmanned air systems (UAS) and unmanned surface vessels (USVs); data transmission and information storage and processing. The Navy and Marine Corps are deployed globally and rely on the electromagnetic spectrum to remain highly maneuverable, flexible, and tactically effective. The ability to access and maneuver in the EMS is a key enabler and underlying tenet of these concepts. Speed of command will differentiate between victory and defeat in future engagements by controlling the precise placement and timing of forces and effects. Using and controlling the Radio Frequency spectrum is a vital required condition to achieve speed of command in today's Information Warfare-dominated word.

MCAS CHERRY POINT & FRC–EAST

6. Senator TILLIS. General Berger, there appears to be some disagreement between the Navy and Marine Corps over who is responsible for paying to upgrade facilities at FRC–East. I am concerned this argument is delaying progress. Which service is responsible for funding the needed construction and modernization efforts at FRC–East and how will you lead in the department to make sure that the necessary investments are made?

General BERGER. The Navy and Marine Corps are working together to solve this critical issue. The Navy's January 2018 Fleet Readiness Center (FRC) Infrastructure Optimization Plan (IOP) Report to Congress laid out a ten-year ~$3.5 billion Department of the Navy (DON) plan for both facility and equipment investments/improvements. The plan includes two unfunded projects for joint F–35 aircraft heavy maintenance: a maintenance hangar at FRC–East, Cherry Point, NC, and a second phase project for this hangar. We are evaluating the appropriate service MILCON cost share based upon utilization and the best timing for these projects within the entire DON portfolio. In the interim, capacity is being expanded within existing FRC spaces to conduct required F–35 maintenance.

7. Senator TILLIS. General Berger, we've been at a costly stalemate with FRC–East, so I'd like to set up a meeting with the primary stakeholders from the Marine Corps and Navy to finally identify the sticking point on this.

General BERGER. We look forward to the opportunity to discuss FRC East and its support to Navy and Marine Corps aviation. My incoming Deputy Commandant for Aviation will be fully prepared to discuss this matter with you at your convenience.

USMC ACQUISITION PROGRAMS

8. Senator TILLIS. General Berger, in your written testimony you state that you're going to do a review of major acquisition programs like F–35, JLTV, ACV etc.—and that you expect that review will likely recommend major revisions and reductions to some of our major programs. Where are you with that review?

General BERGER. Phase II of our overall Force Design 2030 effort concluded in March of this year, and those findings and recommendations were publicly released shortly thereafter. While we will continue to refine some elements of our overall force with additional integrated planning teams, the vast majority of the focus will transition to a rigorous wargaming and experimentation phase (phase III) where we will further test our conclusions and recommendations. Based on the results of those

Phase III efforts, we will have a much better understanding of the operationally suitable cuts that may be required to major acquisition programs such as the F–35B/C, CH–53K, ACV, and JLTV. Based on our initial findings, all of those capabilities are still required and will make the total force more ready; we simply might need fewer of them.

9.Senator TILLIS. General Berger, Marine Corps Air Station New River will be the home of over half of all the new CH–53Ks for the Marine Corps. I believe they just completed the log demo there and have the pilot training simulators installed as well. The CH–53E is an established aircraft but it is old and has maintenance challenges. Given the fact that your requirement for the CH–53K is 200 aircraft and yet you only have about 140 CH–53Es, how important is it for you and the Marine Corps to get these new CH–53Ks sooner rather than later?

General BERGER. As noted in my testimony before your Committee, and in your QFR, the existing program of record is for 200 aircraft. However, that requirement was anchored on an Active Duty force much larger than today's force: 202,000 marines with 27 Active component infantry battalions. Since the requirement for 200 CH–53Ks was initially established over two decades ago, the overall force structure has been reduced significantly. In 2010, we reduced the force to 24 Active component infantry battalions, and as part of Force Design 2030, plan the reduction of three additional infantry battalions. With only 21 Active component infantry battalions to support, the requirement for heavy-lift helicopters has decreased by three full squadrons, a total of 48 aircraft. If such a reduction is implemented, then the resultant 152 aircraft capability will still exceed the current inventory of ¯140 CH–53Es. More importantly, these aircraft will relieve pressure on surface connectors—both land and sea—and provide a much needed upgrade to our future naval expeditionary forces—specifically the redesigned Marine Expeditionary Unit (MEU) and new Marine Littoral Regiment.

USMC BUDGET (PB–21)

10. Senator TILLIS. General Berger, in your written testimony you state that the timing of this POM (Program Objective Memorandum) submission coincides with an inflection point for the Marine Corps. Yet, looking over the Marine Corps' budget I really don't see much change. Why isn't there more significant change in President's Budget 2021?

General BERGER. The Marine Corps' President's Budget 2021 budget request was submitted prior to the completion of our initial Force Design effort which just concluded in March 2020. The President's Budget 2022 budget request is informed by our initial Force Design conclusions as noted in our Force Design 2030 report and will reflect more significant changes related to new requirements to include capabilities such as Group 5 UAS and other unmanned capabilities.

USMC END STRENGTH

11. Senator TILLIS. General Berger, why didn't you inform the Congress of your plans to reduce end strength during the NDAA conference process? The ink on the Fiscal Year 2020 NDAA has barely dried. We had plenty of time to adjust the numbers during conference negotiations.

General BERGER. At the time of Fiscal Year 2020 NDAA conference negotiations, the initial phases of our Force Design effort were underway yet had not been completed. As such, we were not prepared to provide concrete recommendations for a reduction in end strength, and needed additional time to ensure that any cut was grounded in a defensible analytic foundation.

12. Senator TILLIS. General Berger, in light of your plans for fiscal year 2020, why should we trust the end strength numbers you included in the fiscal year 2021 budget request?

General BERGER. The Marine Corps strives to maintain an open and transparent dialogue with Congress, providing the most accurate information it can in as timely a manner as possible. Congress can "trust" our numbers because those are based on a solid analytic foundation, and informed by rigorous wargaming and experimentation. Over the next ten years, Congress can expect Marine Corps end strength to align with our ongoing Force Design effort, the initial stages of which were completed in early 2020. While this effort will be iterative and responsive to the rapidly evolving security environment, we are confident that further reductions to end strength will be required to enable investment in future capabilities. Moving forward, we will continue to update Congress on our Force Design progress and any required organizational changes to enable it.

CAMP LEJEUNE TOXIC EXPOSURE

13. Senator TILLIS. General Berger, I understand that the Agency for Toxic Substances and Disease Registry (ATSDR) has identified a number of buildings at Camp Lejeune that are still threatened by toxic chemical plumes with high detectable levels of the cancer causing TCE. During Hurricane Florence, TCE remediation was temporarily halted due to storm damage at the barracks at HP 57 in Hadnot Point. HP 57 houses female marines of child bearing age, and TCE is proven to cause fetal defects if pregnant women are exposed to it. Are there any current efforts underway to move female marines of child bearing age from the HP 57 barracks? If not, what steps are currently underway to ensure that remediation of TCE in this location does not occur again?

General BERGER. Marine Corps Base (MCB) Camp Lejeune does not plan to move female marines from HP57 because effective measures have been implemented to prevent vapor intrusion (VI). Beginning in 2007, MCB Camp Lejeune conducted a base-wide VI evaluation, including building HP57, in coordination with the United States Environmental Protection Agency (USEPA) and the North Carolina Department of Environmental Quality (NCDEQ). The Marine Corps has shared this information with ATSDR for their ongoing MCB Camp Lejeune VI Public Health Assessment. ATSDR has assured us that if they identify any health risks they will immediately notify installation officials. To date, they have not done so. In 2014, testing indicated elevated contaminant vapors in a mechanical room at HP57. A prompt investigation determined that the vapors were coming from an uncapped sewer pipe which was promptly repaired. Since that repair, no air quality tests have detected TCE vapors from VI above residential indoor air screening levels. As a precautionary measure, MCB Camp Lejeune installed an active sewer venting system as a secondary engineering control. Based on historical test results, including test results prior to the installation of the active sewer venting system, MCB Camp Lejeune does not expect VI to occur at HP57 even during electrical interruptions as briefly occurred because of Hurricane Florence. The EPA and NCDEQ both concur with these primary and secondary engineering controls and agree that this approach protects human health.

QUESTIONS SUBMITTED BY SENATOR DAN SULLIVAN

SOUTHEAST ALASKA ACOUSTIC MEASUREMENT FACILITY

14. Senator SULLIVAN. Secretary Modly, the Southeast Alaska Acoustic Measurement Facility (SEAFAC) is the Navy's only West Coast asset for making high fidelity passive acoustic signature measurements. It is my understanding that the majority of the workforce for this facility does not live—full time—in Ketchikan, Alaska, and instead commutes—at cost to the Navy—to conduct operations at the facility. What is the Navy's rationale for this transient workforce and what is the yearly cost to the Navy?

Secretary MODLY. The SEAFAC Site Director and year-round operations and maintenance staff are local personnel who live in Ketchikan. The operations and maintenance crew consists of 16 personnel who work a standard workweek throughout the entire year at SEAFAC, ensuring the facility is updated, maintained, and ready to support acoustic tests. In an average year, approximately 10 acoustic trials are conducted. A typical trial lasts 72 hours, bringing the total average number of testing days at SEAFAC to approximately 30 days per year. When a test is scheduled, a trial analyst team of experts, assembled from across the NAVSEA organization, travels to SEAFAC to conduct around-the-clock operations for the duration of the trial. The trial analyst team consists of subject matter experts in sonar, acoustics, signal processing, submarine stealth, and other specialties. Following the test, the analyst team members return to their home laboratories where the computer infrastructure, advanced analysis tools, and other communication and support capabilities exist to analyze the data and produce products for the Fleet. The trial analyst team of subject matter experts is not required at SEAFAC other than during these tests, and they support similar testing at SEAFAC's sister facility, the South TOTO (Tongue of the Ocean) Acoustic Measurement Facility (STAFAC), located in the Bahamas, for Atlantic Fleet submarines. These experts also support a significant amount of work at Navy submarine bases, as well as two primary Navy laboratories, Naval Surface Warfare Center, Carderock Division, located at Bethesda, MD, and Submarine Base Bangor, in Silverdale, WA. The laboratories serve as home base for the trial analyst team. It is much more cost effective (estimated savings of $3.7M of travel costs annually) to have a nationally distributed team of experts

supporting the Navy globally than to locate them all in Ketchikan, where they are only required 30 days per year.

15. Senator SULLIVAN. Secretary Modly, has the Navy explored the possibility of local hires in Ketchikan to staff the facility? If so, what was the result? If not, why not?

Secretary MODLY. The year-round operations and maintenance personnel at SEAFAC have been local Ketchikan people since SEAFAC's construction in the 1990s. Throughout the life of SEAFAC, the Navy has been a strong advocate for using local Ketchikan personnel to a large extent and whenever possible. Contract actions for support of SEAFAC are always open for submittals from local entities, and they encourage the use of local personnel.

QUESTIONS SUBMITTED BY SENATOR JOSH HAWLEY

F/A–18 SUPER HORNETS

16. Senator HAWLEY. Secretary Modly, the fiscal year 2021 budget request includes funding for 24 F/A–18E/F Super Hornets, but eliminates 36 aircraft from future years, halting production in fiscal year 2022. As a result, the F/A–18 line could face a closure decision next year. What is the Navy's tactical aviation shortfall this year, and how would it be impacted if the Super Hornet line is closed after this year?

Secretary MODLY. The strike fighter inventory management modelling accounts for procurement block III Super Hornets and Joint Strike Fighter, service life modification of block III Super Hornets, maintenance repair, and projected aircraft utilization based on the optimized fleet response plan. Inventory modeling with President's Budget 2021 shows a maximum strike fighter shortfall of 58 aircraft in fiscal year 2021, with continual improvement throughout the future year's defense program. The Department of the Navy is committed to achieving a mix of 4th and 5th Generation assets by 2030 with the F/A–18E/F and F–35C fleet while developing Next Generation Air Dominance to replace the F/A–18E/F as it reaches end of service life.

17. Senator HAWLEY. Secretary Modly, what is the Navy's strategy for engaging our international partners and how that could help extend the F/A–18 production line?

Secretary MODLY. The Department of Navy (DON) actively engages with our international partners on F/A–18 opportunities. The DON is currently in formal strike-fighter competitions with the governments of Canada (88 aircraft), Finland (64 aircraft), Germany (90 or 45 aircraft), India (57 aircraft) and Switzerland (40 aircraft). Formal international commitments are not expected prior to calendar year 2021, with deliveries in 2024 and beyond.

18. Senator HAWLEY. Secretary Modly, as a complement to new production, the Navy also invested in the F/A–18E/F Service Life Modification (SLM) program to extend the Super Hornet fleet and maintain tactical aviation readiness. The SLM program will certainly yield positive results to lengthen the service life of aircraft. However, even successfully remanufactured aircraft inherently increase the average age of the tactical air force. Additionally, SLM relies on a production line of new Super Hornets for on-time parts and production expertise. Has the Navy assessed the impact of eliminating new Super Hornets on SLM cost or effectiveness or the long-term cost of sustaining an increasingly aging fleet, and if so, what is the Navy's assessment?

Secretary MODLY. The Service Life Modification (SLM) program supports Strike Fighter Inventory Management while a greater number of 5th generation fighters join the Fleet. SLM is a standalone contract with dedicated programmatic, engineering, quality and touch labor resources (i.e. not shared with production), and does not negatively impact the production line. Production ceasing in fiscal year 2021 may present opportunities to acquire experienced touch labor to augment the SLM program. The Department of Navy has assessed the cost effectiveness, and recognizes the increased operating and sustainment cost associated with operating aging fleets. It has divested from legacy Hornets at the operational edge, with the Reserve component and Naval Aviation Warfighting Development Center to follow in 2025. Currently, the Super Hornet is less expensive to procure and operate than the Joint Strike Fighter. However, it is expected that the cost per flight hour of 4th and 5th

Gen platforms will equalize near the end of the Future Year Defense Program as a greater number of F–35C are operated in the fleet.

QUESTIONS SUBMITTED BY SENATOR JACK REED

PRIVATIZED HOUSING

19. Senator REED. Secretary Modly, Admiral Gilday, and General Berger, regarding privatized homes that are ADA (Americans with Disabilities Act of 1990) compliant, my understanding is that roughly five percent of homes must be made accessible for ADA families. And if ADA families do not have an ADA home when they move to an installation, they are placed on a waiting list. Also, if a family moves into an ADA compliant home, they must sign a form saying they will vacate the home if a family requiring ADA compliance needs one. We have received reports of military families unable to move into an ADA home, instances of families who have not moved out when an incoming family requires an ADA home. Are you aware of any such instances? And if not, can you please look into it and report back to us?

Secretary MODLY. All but one of the Department of the Navy's (DON) privatized family housing business agreements include specific Americans with Disabilities Act (ADA) compliance language to address alterations for ADA accommodation. In addition, all projects are required to comply with all Federal, state and municipal laws and certify compliance each year. The business agreement for Kingsville II does not currently include ADA language in the business agreement and will be updated when agreements are updated to incorporate NDAA changes. On Navy installations, some ADA families have not immediately moved into an ADA compliant home and have been put on a wait list. They are moved into an ADA home when one becomes available or when the property manager has modified a home to meet the needs of the family. CNIC has no record of families (non-ADA) occupying ADA homes failing to move when given proper notification within the lease agreement by the local property manager. For Marine Corps installations, Marine Corps Base Hawaii indicated that there have been instances when a non-ADA family was relocated at the PPV partner's expense in order to accommodate an ADA family. MCICOM has no record of this being an issue at any other installation. With the exception of MCB Hawaii, most Marine Corps installations do not require non-ADA families to sign a form prior to occupancy stating that they will vacate a home if it is required for an ADA family.

Admiral GILDAY. All but one of the Department of the Navy's (DON) privatized family housing business agreements include specific Americans with Disabilities Act (ADA) compliance language to address alterations for ADA accommodation. In addition, all projects are required to comply with all Federal, state and municipal laws and certify compliance each year. The business agreement for Kingsville II does not currently include ADA language in the business agreement and will be updated when agreements are updated to incorporate NDAA changes. On Navy installations, some ADA families have not immediately moved into an ADA compliant home and have been put on a wait list. They are moved into an ADA home when one becomes available or when the property manager has modified a home to meet the needs of the family. CNIC has no record of families (non-ADA) occupying ADA homes failing to move when given proper notification within the lease agreement by the local property manager. For Marine Corps installations, Marine Corps Base Hawaii indicated that there have been instances when a non-ADA family was relocated at the PPV partner's expense in order to accommodate an ADA family. MCICOM has no record of this being an issue at any other installation. With the exception of MCB Hawaii, most Marine Corps installations do not require non-ADA families to sign a form prior to occupancy stating that they will vacate a home if it is required for an ADA family.

General BERGER. MCB Hawaii indicated there have been instances when a non-ADA family was relocated at the PPV partner's expense in order to accommodate an ADA family. MCB Hawaii does require that non-ADA families sign a form prior to occupancy stating that they will vacate a home if it is required for an ADA family. This has not been an issue at any of our other installations, thus most Marine Corps installations do not require non-ADA families to sign a form prior to occupying an ADA home. We will review current policies across our installations and ensure all are in compliance.

OPERATIONAL ENERGY ALIGNMENT TO NATIONAL DEFENSE STRATEGY

20. Senator REED. Secretary Modly, Admiral Gilday, and General Berger, according to the Navy's recently analysis sent to this Committee, a hybrid electric drive

(HED) can reduce fuel use as much as 37 percent compared to a ship without one. Another type of operational energy improvement called stern flaps, save the Navy $125 million per year. These and other types of operational energy improvements increase on-station time for Ballistic Missile Defense (BMD) ships and can help address the tyranny of distance fuel logistics problem in the Pacific. These are all aspects of the Navy's alignment with the National Defense Strategy. Can each of you please briefly talk about how operational energy improvements increase combat capability and lethality of the Navy and Marine Corps and what kind of other investments you all are making for ships and deployed forces?

Secretary MODLY. The Navy's warfighting strategy, aligned to the NDS, employs a Distributed Maritime Operations concept that increases the importance of forward logistics capability, platform endurance, and operational reach. Navy's operational energy improvements target technologies that extend energy supplies into contested environments and optimize energy use. The following investments enhance the naval operational energy network to enable distributed operations: The MQ–25A is a CVN-based unmanned aerial tanker that will extend the reach of the carrier strike group's air wing Afloat refueling projects, including the Seabased Petroleum Distribution System (SPDS) and Improved Modular Fuel Delivery System (IMFDS), will enable a more reliable and robust fuel distribution network, and provide options for getting fuel over the shore to marines. The Integrated Power and Energy Systems project is developing the next generation shipboard power and energy architecture and subsystems needed to optimize electrical energy distribution and enable future high energy weapons Advanced batteries and fuel cells are enabling more unmanned capabilities and extending reach and endurance of naval weapons systems The Mobility Fuels program continues to provide testing and certification capabilities to ensure the Navy has access to reliable sources of fuel worldwide Energy Command and Control tools, including the Global Energy Information System (GENISYS), the Replenishment at Sea Planner (RASP), and Maritime Tactical Command and Control (MTC2), will support tactical and campaign level energy management.

Admiral GILDAY. The Navy's warfighting strategy, aligned to the NDS, employs a Distributed Maritime Operations concept that increases the importance of forward logistics capability, platform endurance, and operational reach. Navy's operational energy improvements target technologies that extend energy supplies into contested environments and optimize energy use. The following investments enhance the naval operational energy network to enable distributed operations:

- The MQ–25A is a CVN-based unmanned aerial tanker that will extend the reach of the carrier strike group's air wing.
- Afloat refueling projects, including the Seabased Petroleum Distribution System (SPDS) and Improved Modular Fuel Delivery System (IMFDS), will enable a more reliable and robust fuel distribution network, and provide options for getting fuel over the shore to marines.
- The Integrated Power and Energy Systems project is developing the next generation shipboard power and energy architecture and subsystems needed to optimize electrical energy distribution and enable future high energy weapons.
- Advanced batteries and fuel cells are enabling more unmanned capabilities and extending reach and endurance of naval weapons systems.
- The Mobility Fuels program continues to provide testing and certification capabilities to ensure the Navy has access to reliable sources of fuel worldwide.
- Energy Command and Control tools, including the Global Energy Information System (GENISYS), the Replenishment at Sea Planner (RASP), and Maritime Tactical Command and Control (MTC2), will support tactical and campaign level energy management.

General BERGER. The Marine Corps is investing approximately $51 million in fiscal year 2021 to address Operational Energy (OE) challenges, $18 million to increase future warfighting capability, and $33 million to enhance mission effectiveness of the current force. For example, we are investing in advanced power sources and new power generation and harvesting methods, with supporting research and development in renewable energy sources, mobile electric power, new advanced battery chemistries, and alternative energy sources (e.g. hydrogen fuel cells or aluminum based fuels). We are also seeking novel methods to execute bulk fuel distribution, for example, investing in manned and unmanned systems that expand the distribution network via low-cost, risk-worthy platforms, while enhancing network redundancy and inverting the energy cost curve. OE investments reduce both the footprint and logistics tail required to support forward forces—essential if we are to realize the potential of Distributed Maritime Operations (DMO) and Expeditionary Advanced Base Operations (EABO).

QUESTIONS SUBMITTED BY SENATOR JEANNE SHAHEEN

PORTSMOUTH NAVAL SHIPYARD JOINT LAND USE STUDY

21. Senator SHAHEEN. Secretary Modly and Admiral Gilday, Portsmouth Naval Shipyard and the town of Kittery, Maine recently unveiled a "Joint Land Use Study" to address traffic and congestion issues as the shipyard continues to expand. How is the Navy involved in this process?

Secretary MODLY. The Kittery, Maine, and Portsmouth Naval Shipyard Joint Land Use Study (JLUS) is an opportunity for the Town of Kittery, the Southern Maine Planning and Development Commission (SMPDC) along with the States of Maine and New Hampshire, and the Portsmouth Naval Shipyard (PNSY) to strengthen their current partnerships. This includes the ability to understand and address the issues impacting both the Navy and communities throughout the region, including traffic congestion. The JLUS also established a blueprint to support military readiness, community growth, and economic development. Extensive public outreach and engagement occurred throughout the JLUS planning process. The JLUS is a collaborative community planning effort between PNSY, state and federal officials, and various community stakeholders. Communication and coordination between the shipyard and the community are more robust through the study process. The process encourages them to act as a team to prevent or limit compatibility issues caused by future shipyard expansion or community growth. Kittery and the SMPDC sponsored the JLUS with funding support from the U.S. Department of Defense, Office of Economic Adjustment.

Admiral GILDAY. The Kittery, Maine, and Portsmouth Naval Shipyard Joint Land Use Study (JLUS) is an opportunity for the Town of Kittery, the Southern Maine Planning and Development Commission (SMPDC) along with the States of Maine and New Hampshire, and the Portsmouth Naval Shipyard (PNSY) to strengthen their current partnerships. This includes the ability to understand and address the issues impacting both the Navy and communities throughout the region, including traffic congestion. The JLUS also established a blueprint to support military readiness, community growth, and economic development. Extensive public outreach and engagement occurred throughout the JLUS planning process. The JLUS is a collaborative community planning effort between PNSY, state and federal officials, and various community stakeholders. Communication and coordination between the shipyard and the community are more robust through the study process. The process encourages them to act as a team to prevent or limit compatibility issues caused by future shipyard expansion or community growth. Kittery and the SMPDC sponsored the JLUS with funding support from the U.S. Department of Defense, Office of Economic Adjustment.

22. Senator SHAHEEN. Secretary Modly and Admiral Gilday, there is a military construction (MILCON) project in the fiscal year 2023 budget plan that would acquire the rail spur land near the Route 1 bypass and Route 103 heading towards the shipyard to temporarily hold supplies for the shipyard and create satellite parking. How will the Navy commit to ensuring the needs at the shipyard are addressed?

Secretary MODLY. Yes, the Navy has a requirement for the rail spur land near the Route 1 bypass and Route 103 heading towards the shipyard as a temporary holding space for supplies and to create satellite parking for the shipyard. No discussions have taken place between the Town of Kittery or any Joint Land Use Study committee stakeholders regarding any projects that would support any such initiatives. The Portsmouth Naval Shipyard (PNSY) submitted a MILCON P–1170 project request for fiscal year 2022 that was not programmed. Following internal Navy processes, the project is being resubmitted for consideration in future Navy programming actions. The Navy will ensure the needs at the Shipyard are addressed through the Shipyard Infrastructure Optimization Program (SIOP). SIOP is using a digital-twin planning tool to help guide the Navy to final decisions for all projects needed to support an efficient shipyard configuration. The digital-twin effort at PNSY will be completed during the second quarter of fiscal year 2021, with an updated Area Development Plan expected to be completed by the third quarter of fiscal year 2022.

Admiral GILDAY. Yes, the Navy has a requirement for the rail spur land near the Route 1 bypass and Route 103 heading towards the shipyard as a temporary holding space for supplies and to create satellite parking for the shipyard. No discussions have taken place between the Town of Kittery or any Joint Land Use Study committee stakeholders regarding any projects that would support any such initiatives. The Portsmouth Naval Shipyard (PNSY) submitted a MILCON P–1170 project re-

quest for fiscal year 2022 that was not programmed. Following internal Navy processes, the project is being resubmitted for consideration in future Navy programming actions. The Navy will ensure the needs at the Shipyard are addressed through the Shipyard Infrastructure Optimization Program (SIOP). SIOP is using a digital-twin planning tool to help guide the Navy to final decisions for all projects needed to support an efficient shipyard configuration. The digital-twin effort at PNSY will be completed during the second quarter of fiscal year 2021, with an updated Area Development Plan expected to be completed by the third quarter of fiscal year 2022.

QUESTIONS SUBMITTED BY SENATOR RICHARD BLUMENTHAL

VIRGINIA-CLASS

23. Senator BLUMENTHAL. Secretary Modly, yesterday, Secretary Geurts testified before the Seapower Subcommittee that the *Virginia*-class does not have an execution issue, and there's no concern about the contractor's ability to deliver—it is truly an affordability issue, which is why one *Virginia*-class submarine is the top priority on the Navy's unfunded requirements list. Do you agree with this assessment?

Secretary MODLY. Yes, this was not an execution issue. The construction schedules which had been lagging on *Virginia*-class submarines are stabilizing, and the Navy can execute a 2nd ship if it is funded in fiscal year 2021. During the budget process, strategic decisions had to be made across the entire Navy portfolio to balance requirements versus the top line budget. A second submarine is the Navy's next priority and, for that reason, is at the top of our unfunded priorities list.

24. Senator BLUMENTHAL. Secretary Modly, why did the Navy budget request only include one submarine in fiscal year 2021, exacerbating the shortfall in fast-attack submarines?

Secretary MODLY. The Navy faces significant budgetary pressures, and funding for additional fast attack submarines must compete with other important demands, such as readiness and force level requirements of other classes of ships, including *Columbia.* Although SSN force structure remains below the Navy requirement, the Navy is able to manage force requirements to execute our required missions during this time, while expanding the industrial base to support growing a larger more lethal SSN force structure.

25. Senator BLUMENTHAL. Secretary Modly, are you concerned about the potential harm to the submarine industrial base and workforce if only one *Virginia*-class submarine is funding?

Secretary MODLY. A healthy industrial base is critical to meeting the shipbuilding demand outlined in President's Budget 2021 and the Navy greatly appreciates the support Congress has given us to stabilize and enhance that industrial base and shipbuilding programs. The Navy must have a stable industrial base in order to not only ramp up for the future, but also to sustain the employment and the skill levels already in place. While it is imperative that the Navy retain and expand our competitive advantage and improve capacity and capability, the Navy faces budgetary limitations and competing priorities. The industrial base should not be harmed by funding only one submarine in fiscal year 2021. However, maintaining the two per year build rate is the most effective way to stabilize the industrial base and increase SSN capacity. For this reason, the *Virginia*-class ship is the number one priority on the Unfunded Priority List. The *Virginia*-class Submarine (VCS) Block V Multi-Year Procurement (MYP) contract includes a priced option for one additional SSN with VPM executable in either fiscal year 2021, fiscal year 2022, or fiscal year 2023. Additionally, as required by public law 115–232, the contract contains unpriced options for an additional ship in fiscal year 2022 and fiscal year 2023. The President's Budget 2021 request and prior year budgets (fiscal year 2018 to fiscal year 2020) include funding to support critical spare materials for a tenth VCS Block V hull. Funding for these materials early in the MYP is critical to level loading supplier's work orders and serves to mitigate many impacts of procuring a single submarine in fiscal year 2021. If a tenth VCS Block V option is not exercised the material would be assigned to subsequent SSNs. Additionally, the Navy continues to implement the Integrated Enterprise Plan (IEP), which coordinates the key actions required to accomplish integrated construction across the nuclear shipbuilding enterprise, including VCS, *Columbia*-class, and *Ford*-class. The IEP includes a substantial focus on meeting labor demands and both shipyards have contributed workforce

acquisition and development strategies. The Navy will continue its efforts to sustain a viable submarine industrial base and its workforce.

26. Senator BLUMENTHAL. Admiral Gilday,do you believe that our current pace of submarine construction is sufficient for the United States to maintain undersea dominance—particularly with regard to near-peer adversaries Russia and China?

Admiral GILDAY. Yes, it is imperative that the Navy retain and expand our competitive advantage, both in capacity and capability. The Navy will continue to reexamine our force structure and Shipbuilding plans, improving SSN capacity where feasible given budgetary limitations and competing priorities. Of particular importance is to preserve our industrial base and establish an aggressive, forward-looking, competitive posture. *Virginia*-class submarines use modular construction with an open architecture to enable capability improvements. Each successive submarine block continues to include capability enhancements keeping us ahead of the threat and restoring operational margin.

ELECTRIC BOAT AND GROTON WORK FORCE

27. Senator BLUMENTHAL. Secretary Modly, I would like a staff-level brief on Navy efforts to stabilize the submarine workforce, but specifically I'd like to know: When do you expect to have a contract in place for Electric Boat workers to help public shipyards with maintenance or other availabilities to ease the workforce dip?

Secretary MODLY. The Navy is evaluating all contract opportunities and structures for augmenting the nuclear ship maintenance workforce from private shipyards. Therefore, the Navy cannot provide specific information on the number people or the specific companies that would be involved. The Navy will reach out to your staff to schedule a briefing at the earliest opportunity.

28. Senator BLUMENTHAL. Secretary Modly, how many workers will this help, and which public shipyards are participating?

Secretary MODLY. The Navy is evaluating all contact opportunities and structures for accomplishing the nuclear ship maintenance workload with our private industry partners. The Navy will reach out to your staff to schedule a briefing at the earliest opportunity.

29. Senator BLUMENTHAL. Secretary Modly, what other policies or authorities are required in order to ease the trend of furloughs and new hires to stabilize the submarine industrial base workforce?

Secretary MODLY. A skilled, experienced industrial base workforce is key to the efficient construction and maintenance of submarines. The Navy closely oversees workload and workforce requirements necessary to meet submarine construction and maintenance schedules. As *Columbia* lead ship construction begins this year and ramps up to serial production in fiscal year 2026, the submarine construction workforce will need to expand from current levels. There are no new policies or authorities required however. The *Columbia* program will continue to benefit from authorities in the National Sea Based Deterrence Fund (NSBDF) to help level-load the industrial base and the associated workforce. NSBDF authorities of particular benefit to the workforce include: Economic Order Quantity in support of Multi-Program Material Procurement, Advance Construction, and Continuous Production which reduce construction schedule risk through consistent demand signals and level loading enabling construction efficiencies & facilities optimization. In addition, Congress has appropriated $573 million to the *Virginia* and *Columbia* programs since fiscal year 2018 for submarine industrial base expansion and risk reduction. These funds are critical for actively managing supply base risks and aiding with supplier development. An additional key enabler for de-risking the workforce and industrial base is the on-time award of the Build I contract (SSBN 826 and 827). The Department of Defense has submitted a legislative proposal requesting authority to award the incrementally funded Build I contract. In order to exercise the Build, I option on schedule, the authority to award the incrementally funded contract is required by October 2020. In the event of a fiscal year 2021 Continuing Resolution, an anomaly will be required, including new start language and incremental funding authority. Even with plans to mitigate workload shortfalls and manage green labor, peaks and valleys will continue to occur in the work force due to submarine construction and repair schedules. To address these near term ebbs, the Navy has assigned some submarine maintenance availabilities to private shipyards. The Navy will continue to evaluate future opportunities to help manage the workload in private shipyards and to ease the workload ramp to *Columbia* serial production.

30. Senator BLUMENTHAL. Secretary Modly, what is the plan for maintenance on the USS *John Warner?* When do you anticipate this maintenance availability will be awarded?

Secretary MODLY. The USS *John Warner's* Extended Drydocking Selected Restricted Availability is scheduled for accomplishment in fiscal year 2023. As the Navy continues to balance its workload across the entire industrial base, it will continue to consider the available capacity within the public and private sectors. The Navy anticipates making a final decision by the end of the second quarter of calendar year 2021.

CH–53K FUNDING CUTS

31. Senator BLUMENTHAL. General Berger, would you support funding for 9 CH–53Ks in the fiscal year 2021 budget?

General BERGER. We budgeted for 7 aircraft in fiscal year 2021. If ¯$240 million of additional funding were made available to the Marine Corps, we would prefer to apply those resources toward higher Service acquisition priorities aligned to Force Design 2030 such as Group 5 MALE UAS. We remain committed to the HMH program as articulated in the Force Design 2030 report, and think that our current pace for procurement remains appropriate.

32. Senator BLUMENTHAL. General Berger, What role does the CH53K play in the expeditionary advanced basing operations concept of employment, and supporting distributed maritime operations?

General BERGER. Beyond its traditional role as heavy-lift support, the CH–53K's exact function in our emerging naval concepts of Distributed Maritime Operations (DMO) and Expeditionary Advanced Base Operations (EABO) requires additional study. We aim to advance our understanding of the aircraft's role in DMO and EABO during rigorous experimentation and exercises as part of our ongoing Force Design effort. As noted in our Force Design 2030 report, we are confident that 5 CH–53K squadrons will provide the modern heavy-lift capabilities that our stand-in naval forces require. We see the CH–53K as one of several key capabilities within a larger system of naval and joint capabilities whose role is largely dependent upon the presence or absence of other assets such as surface connectors, as well as the size and weight of our base firing elements—HIMARs, LW155, or future Rogue Fires. The CH–53K has the ability to move more fuel, equipment, critical supplies, and marines at greater distances than any current rotorcraft; thus, should provide our forward deployed forces with a key capability for maritime gray zone competition against peer or near-peer adversaries. In addition, it will provide Fleet Commanders and ARG/MEU Commanders with a modern capability in support of our traditional crisis response role. As our EABO experimentation progresses, I will provide you and the Committee with updates, and look forward to discussing this program with you in the near future.

WORK FORCE DEVELOPMENT FUNDING CUTS

33. Senator BLUMENTHAL. Secretary Modly, last year the Defense Acquisition Workforce Development Account appropriated over 400 million for work force development across the Department of Defense. Additionally in support of the *Columbia* program, 123 million was appropriated for submarine industrial base expansion to ensure that second and third-tier contractors can meet increased production requirements. Can you provide this Committee an update on the funding provided last year to support supplier and work force development?

Secretary MODLY. The Defense Acquisition Workforce Development Account funds the recruitment, training, and retention of Department of Defense personnel. This fund does not provide funding to support private shipbuilder workforce development. The fiscal year 2020 Consolidated Appropriations Act provided $8 million in the Industrial Base Analysis and Sustainment Support line for submarine workforce development. In previous years, the federal government provided assistance to benefit the submarine industrial base through Department of Labor grants to manufacturing workforce development programs. Programs in Connecticut and Rhode Island leveraged this funding to recruit and train the increasingly green force. Funding appropriated by Congress in fiscal year 2020 will be used to support similar programs. The fiscal year 2020 National Defense Authorization Act and the fiscal year 2020 Consolidated Appropriations Act provided $123 million for submarine industrial base expansion and risk reduction. Similar to the fiscal year 2019 $225 million provided, the fiscal year 2020 funding will be applied to developing alternate source suppliers, developing strategic sourcing suppliers, and improving capacity and capa-

bility at existing suppliers. A separate brief will be provided with detailed information regarding funding appropriated for submarine supplier development.

34. Senator BLUMENTHAL. Secretary Modly, the Defense Acquisition Workforce Development Account in the fiscal year 2021 budget has been reduced by over ¾ from fiscal year 2020 enacted levels, from 400 million to 92 million. Are you concerned about how this drop in funding will impact the sustainment of the industrial base and submarine construction schedules?

Secretary MODLY. The successful sustainment of the submarine industrial base and its associated weapons systems relies on a highly skilled and trained acquisition workforce, including the supporting personnel assigned to work directly with the acquisition workforce. The acquisition workforce, in coordination with our industry partners, plays an integral role in supporting and enabling submarine construction schedule efforts. The Defense Acquisition Workforce Development Account supports training and development of the acquisition workforce and is a critical element of both effective execution of the acquisition programs and ensuring a pipeline of qualified employees. The Navy faces significant budgetary pressures, and funding for training and development of the acquisition workforce must compete with other important demands such as readiness. However, the Navy is prioritizing efforts with the funding that remains to minimize impacts to the industrial base and submarine construction schedules. We are focusing on attracting talent to the civilian workforce—targeting critical skill gaps such as STEM and Information Technology—and continue to leverage section 1111 hiring authorities to hire highly qualified acquisition and technology experts with a focus on Submarine Supply Chain challenges. The Navy is also continuing to provide training to improve the understanding between industry and government relationships. Funding will also be set aside to support the congressional directives in prior NDAAs such as supporting program manager development, industry exchange programs, and increased experiential learning.

35. Senator BLUMENTHAL. Secretary Modly, as you know, *Columbia* construction begins this year. What still needs to be done to improve supplier and work force development?

Secretary MODLY. Since fiscal year 2018, Congress has appropriated $573 million for submarine industrial base expansion in the *Virginia* and *Columbia* funding lines. The Navy will continue to use these funds to actively manage supply base risk and aid with supplier development. As *Columbia* lead ship construction begins this year and ramps up to serial production in fiscal year 2026, the submarine construction workforce will need to expand from current levels. The Navy, through the various program offices, closely oversees workload and workforce requirements necessary to meet construction levels and schedules, including the shipbuilders' long-term, coordinated workforce development plans. Key aspects of these plans are to find a sufficient number of qualified workers and to manage and maximize the effectiveness of green labor. In recent years, the Federal Government has contributed to state and private investments in manufacturing workforce development programs. These programs have increased the qualified labor pool for the submarine industrial base and increased the preparedness of workers as they enter the workforce. Continued funding of these programs would be beneficial to the Navy and its partners.

36. Senator BLUMENTHAL. Secretary Modly, what is the impact of the *Virginia*-class ramp deduction from two to one this year in respect to ensuring we have the right trained and educated work force?

Secretary MODLY. A healthy industrial base is critical to meeting the shipbuilding demand outlined in in the fiscal year 2021 budget request, and the Navy greatly appreciates the support Congress has given us to stabilize and enhance that industrial base and shipbuilding programs. The Navy must have a stable industrial base and workforce in order to not only ramp up for the future, but also to sustain the employment and the skill levels already in place. While it is imperative that the Navy retain and expand our competitive advantage and improve capacity and capability, the Navy faces budgetary limitations and competing priorities. The industrial base and workforce should not be harmed by funding only one submarine in fiscal year 2021 however, maintaining the two per year build rate is the most effective way to stabilize the industrial base and increase SSN capacity. For this reason, the *Virginia*-class ship is the number one priority on the Unfunded Priority List. The *Virginia*-class Submarine (VCS) Block V contract was structured to include a priced option for one additional SSN with VPM executable in either fiscal year 2021, fiscal year 2022, or fiscal year 2023. Additionally, as required by public law 115–232, the contract contains unpriced options for an additional ship in fiscal year 2022 and fis-

cal year 2023. The President's fiscal year 2021 budget request and prior year budgets (fiscal year 2018 to fiscal year 2020) include funding to support critical spare materials for a tenth VCS Block V hull. This material includes non-nuclear CFE components bought with two-year and one-year AP and non-nuclear EOQ material. Funding for these materials early in the MYP is critical to level loading supplier's work orders and serves to mitigate many impacts of procuring a single submarine in fiscal year 2021. If a tenth VCS Block V option is not exercised the material would be assigned to subsequent SSNs. Additionally, the Navy continues to implement the Integrated Enterprise Plan (IEP) which coordinates the key actions that are needed to accomplish integrated construction across the nuclear shipbuilding enterprise, including VCS, *Columbia*-class, and *Ford*-class. The IEP includes a substantial focus on meeting labor demands and both shipyards have contributed workforce acquisition and development strategies. These plans and strategies are tied directly to long-term submarine construction plans elsewhere in the IEP.

37. Senator BLUMENTHAL. Secretary Modly, what implications does this have for the delivery schedules of both *Virginia* and *Columbia*-class over the FYDP?

Secretary MODLY. Procuring one *Virginia*-class submarine (VCS) in fiscal year 2021 has no impact on the delivery schedules of VCS and *Columbia* (CLB) over the FYDP. The shipbuilders are focusing on returning to a two per year VCS rate at a 6 month cadence. It is expected that VCS Block V construction start and deliveries would continue at a 6 month cadence independent of whether Block V included nine or ten submarines. CLB is the Navy's top acquisition priority and the Navy is working to ensure that the schedule for the CLB remains on track. The workforce and facilities being utilized by the CLB program are being established in concert with those of VCS, with some dedicated CLB portions. As such, any changes in the VCS program should not impact the CLB program.

38. Senator BLUMENTHAL. Secretary Modly, are there any additional policies or authorities that you need in order to ensure greater stability within the submarine industrial base and among our submarine workforce?

Secretary MODLY. There are no additional authorities needed to ensure greater stability within the submarine industrial base and among the submarine workforce. The Department greatly appreciates the authorities provided in the National Sea-Based Deterrence Fund and the Congressional support provided in fiscal year 2019 and fiscal year 2020 to expand the industrial base. Both have enabled savings and efficiencies and supported improving the health of the submarine industrial base. The Department does need Incremental Funding Authority to execute the Build I contract for SSBN 826 and SSBN 827, planned to be awarded in October 2020.

REDUCED PROCUREMENT AND FUNDING FOR SHIPBUILDING

39. Senator BLUMENTHAL. Secretary Modly, in addition to being concerned about technological encroachment and competition by our adversaries, I am concerned that we are self-defeating at our current procurement and funding levels. The Navy's fiscal year 2021 budget requests the procurement of eight new ships, but this figure includes LPD–31, which Congress procured (i.e., authorized and appropriated procurement funding for) in fiscal year 2020. Excluding this ship, the Navy's proposed fiscal year 2021 budget requests the procurement of seven new ships rather than eight, which is less than the 10 ships that the Navy projected it would request under its fiscal year 2020 budget submission. This number is also significant because a rate of seven ships is less than the average ship procurement rate that would be needed over the long run, given current ship service lives, to achieve and maintain a 355-ship fleet. In funding dollars, the Navy is requesting a total of about $19.9 billion for its shipbuilding account for fiscal year 2021, about $3.9 billion (16.3 percent) less than the Navy requested for fiscal year 2020. How should this Committee interpret these trends?

Secretary MODLY. The Navy is committed to at least 355 ships. To get there, the composition of the fleet needs to change to have fewer large platform and more smaller platforms that are lightly manned, eventually moving to optionally manned. The fleet needs to have certain compositional characteristics, including distributed awareness, lethality, survivability, and sustainability, and move to a much more aggressive posture in terms of experimenting and prototyping and then quickly moved to production. Given the budget topline constraints, the fiscal year 2021 budget prioritizes a more capable and lethal force over a larger force that would be less capable, less ready and less lethal. It includes procurement of 44 battle force ships within the Future Years Defense Program (FYDP), and shows a realistic approach to planning the future force within projected budgets. The plan remains mindful of

the need to keep the shipbuilding industrial base loaded at an effective level that encourages industry investment in capital improvements, capital expansion, and a properly sized world-class workforce.

40. Senator BLUMENTHAL. Admiral Gilday, is this drawback in funding and production rate an indicator that the 355 ship, and 66 submarines target is no longer the goal of the U.S. Navy?

Admiral GILDAY. No. The Department of Defense remains committed to building a Navy of at least 355 ships (inclusive of 66 submarines). With flat budget toplines that do not increase with inflation, Navy had to prioritize funding the force most likely to win across the spectrum of conflict versus China and Russia. Risk was taken in capacity in order to prioritize readiness, lethality, and modernization. The fiscal year 2021 budget resources capable capacity growth for which attendant requirements to modernize, man, train, and operate can also be resourced.

41. Senator BLUMENTHAL. Secretary Modly and Admiral Gilday, can you discuss what you believe the risk to the shipbuilding industrial base will be due to these cuts in production and funding?

Secretary MODLY. We tried to be very objective in terms of where we took the resources for the reprogramming, which resulted in some shifts to expected procurement dates. Funds were sourced from fiscal year 2020 dollars that were determined to be either ahead of need or excess to need, in other words, not requested in the fiscal year 2020 budget by the Department. The sources were reviewed by the Chairman of the Joint Chiefs of Staff who determined that this reprogramming was not of significant immediate strategic negative impact to the overall defense of the United States. A healthy industrial base, including shipyards and the associated workforce, is absolutely critical to our effort to get to 355 ships. With adequate resources, and with budget predictability and stability, the industrial base has the capacity and capability to support getting to 355 ships in 10 years.

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42. Senator BLUMENTHAL. Secretary Modly and Admiral Gilday, what plans do you have to mitigate the negative impacts to the industrial base?

Secretary MODLY. The Navy is committed to at least 355 ships. To get there, the composition of the fleet needs to change to have fewer large platform and more smaller platforms that are lightly manned, eventually moving to optionally manned. The fleet needs to have certain compositional characteristics, including distributed awareness, lethality, survivability, and sustainability, and move to a much more aggressive posture in terms of experimenting and prototyping and then quickly moved to production. A healthy industrial base, including shipyards and the associated workforce, is critical to this effort. With adequate resources, and with budget predictability and stability, the industrial base has the capacity and capability to support getting to 355 ships in 10 years.

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43. Senator BLUMENTHAL. Secretary Modly, can you explain why LPD 31 is accounted for in the fiscal year 2021 budget, despite being authorized and appropriated in fiscal year 2020?

Secretary MODLY. The Navy is very appreciative of the strong Congressional support for shipbuilding. LPD 31 is an incrementally funded ship that received Advance Procurement funding in fiscal year 2019. Congress appropriated the preliminary increment of full funding in fiscal year 2020. The Navy planned to procure LPD 31 in fiscal year 2021, and has requested the preponderance of funding in fiscal year 2021. Therefore, the Navy counted the ship in fiscal year 2021.

QUESTIONS SUBMITTED BY SENATOR ELIZABETH WARREN

MARINE CORPS CULTURE

44. Senator WARREN. General Berger, the Marine Corps University's Center for Advanced Operational Culture Learning was tasked by your predecessor in July 2017 to conduct a study on Marine Corps culture in the wake of the Marines United scandal. The final report provided more details on gender bias and leadership in the Marine Corps and noted that "[M]any women were unsurprised by the behavior of those on Marines United because they live out related struggles every day." Have you read this report in its entirety?

General BERGER. Yes—and as the Committee surely recognized in my official written statement, per that reports findings, I acknowledged a well-known malignant sub-culture of misogyny within our ranks that must be eradicated.

45. Senator WARREN. General Berger, what conclusions did you draw? What are the most important takeaways

General BERGER. I believe the most important takeaway is that the Marine Corps is a learning institution. Seen in context, this Report comprises the response by a Marine educational institution to a query asked by the Corps itself. While the report clearly indicated that our culture is flawed and imperfect, I am encouraged that marines felt free to offer their opinions without fear of repercussion, and with the hope that the institution would address its cultural challenges. The Corps must be prepared to ask itself whether its norms and culture serve the central purposes of the organization, including meeting its mission to train marines, and to matriculate them into a warrior culture that simultaneously exists within a civil society. Marine culture values honor and courage coupled with decisive action as well as flexibility in adjusting to any environment. Counter behaviors and cultures need to be called out, addressed, and eliminated. We continue to work to create the best warriors prepared to do combat for the Nation and who represent the best of the society they have sworn to defend. We cannot ignore strong signals of change nor be complacent when it comes to designing and preparing the force for the future. This is the force that will always adapt and overcome no matter the circumstances. Over the next 12 months, you will observe clear evidence of change within our manpower system as we modernize it in accordance with a more responsive and suitable talent management system. Those reforms will further seek to eliminate both conscious and unconscious bias from the system, further ensuring an equality of opportunity for all marines.

46. Senator WARREN. General Berger, do you believe that it should be required reading for all marines? Will you commit to adding the final report to your reading list?

General BERGER. I believe the report should be required reading for all senior Marine Corps leaders, both uniformed and civilian, and as a consequence, have directed as much. As with all of our educational products, the report will be made generally available to and through our educational system.

47. Senator WARREN. General Berger, the report lists a publication date of 30 March 2018, but it was not published on the CAOCL website until September 2019. Why was the public release delayed for a year and half?

General BERGER. Regrettably, I cannot comment with any precision as to why a report published in March 2018 was not immediately released to the public. Our internal review processes do not always prioritize correctly, nor move as fast as they should; however, fixing processes like these and fostering an environment of transparency are priorities of mine as Commandant.

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2021 AND THE FUTURE YEARS DEFENSE PROGRAM

THURSDAY, MARCH 12, 2020

UNITED STATES SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

UNITED STATES CENTRAL COMMAND

The Committee met, pursuant to notice, at 9:00 a.m. in Room SD–G50, Dirksen Senate Office Building, Senator James M. Inhofe (presiding) Chairman of the Committee.

Committee Members present: Senators Inhofe, Fischer, Cotton, Ernst, Cramer, Scott, Blackburn, Hawley, Reed, Shaheen, Blumenthal, Hirono, Kaine, King, Peters, and Manchin.

OPENING STATEMENT OF SENATOR JAMES M. INHOFE

Chairman INHOFE. Our meeting will come to order.

The Committee meets today to receive the testimony of the United States Central Command. I would like to welcome our witness, General Frank McKenzie, Commander of the United States Central Command.

I want to add that immediately following this morning's open hearing, we will move to SVC–217 in the Senate Visitors Center for a closed session, which will be an opportunity for General McKenzie to answer some of the questions. You might make a note of questions that come along that are not appropriately answered in this setting so that we can do it later.

I would like to begin by recognizing two United States marines, Gunner Sergeant Diego Pongo and Captain Moises Navas, who were killed earlier this week during a mission against the ISIS [Islamic State of Iraq and Syria] stronghold in Iraq. I also want to recognize the two additional Americans who were killed yesterday, whose names have not yet been released. That was in a rocket attack in Taji. Their loss is a painful reminder that even where we have been successful, such as in destroying ISIS, the caliphate, we still have troops in harm's way. When Senator Rounds and I had the opportunity to meet with some of our troops 2 weeks ago in visiting Iraq, we had a chance to really talk over some of the things like this with them.

General, later this month, you will be commemorating your 1-year anniversary as CENTCOM Commander, and I sure you agree

it has been a tough ride. Since May of 2019, we have seen Iran and its terrorist proxies escalate their asymmetric aggression against the United States and our partners throughout the region. In May, they hit our partners' oil tankers. In June, they downed an American drone. In September, they attacked Saudi oil facilities, threatening the global energy supply. Throughout this up-tick, President Trump announced new sanctions on Iran, bolstering protection for our troops in the region, but he sought to avoid a military escalation and even offered to negotiate with Tehran.

Then in December, Iran's proxies killed a United States citizen and attacked the United States embassy in Baghdad. These actions crossed the President's redline, which we knew that by his very nature, he is going to adhere to his own redlines, unlike some others in the past, and the President responded by ordering a strike that ended up killing Soleimani.

Iran countered by firing ballistic missiles that thankfully missed our troops in Iraq, though over 100 soldiers sustained concussions. Since then, the situation seems to have deescalated.

Yet, despite the deployment of approximately 14,000 new troops to the region to deter Iran, your written testimony says—and I am quoting from your written testimony, General—quote, ample intelligence exists indicating that Iran's regime desire to continue malign operations that threaten lives, and early media reports suggest that Iran-backed groups were responsible for yesterday's attack at Camp Taji.

If the deployment of approximately 14,000 troops in the region will not deter them, I am sure a good question would be, what will deter them? We will have ample opportunity to respond to that question.

I ask because this Committee's top priority is effective implementation of the National Defense Strategy, which says to focus on China and Russia as the central challenge to the United States prosperity and security and, as you highlight in your written statement, to accept greater risk in the CENTCOM AOR.

Countering Iran is an important aspect of American credibility in the Middle East, and bolstering American credibility is vital to preventing our partners from looking toward China and Russia for their security needs.

But every battalion that we send to the Middle East is a battalion that is not being sent to support other priorities in Europe and the Pacific. Moreover, this ramp-up in the Middle East comes while other priorities such as counterterrorism and security cooperation in Africa are being under-sourced.

I hope you will address how these new deployments to the Middle East are changing Iran's behavior for the better. Or, if conflict with Iran remains likely in your view, we would like to know—you explain to us—what these new deployments are achieving.

With that, I will turn to Senator Reed.

STATEMENT OF SENATOR JACK REED

Senator REED. Well, thank you very much, Mr. Chairman. Let me join you in welcoming General McKenzie back before the Committee, and we look forward to your testimony and our discussion. Thank you, General.

Let me also join the Chairman in expressing my condolences for the loss of the three coalition personnel at Camp Taji last evening and two of whom were reported to be American personnel, and the death of the two marines conducting operations against ISIS in Iraq earlier this week. Our thoughts are with their families and those who were injured in those two incidents.

The agreement between the United States and the Taliban, announced on February 29th, was a notable step toward bringing our nation's longest war to a close. It is important to keep in mind, however, that it is only a first step, and the path to long-term stability in Afghanistan will only be found through a negotiated settlement between the Taliban and the Afghan Government. With that in mind, I am concerned that we are not appropriately leveraging U.S. and coalition military presence to support a settlement that protects U.S. security interests primarily and values, including the hard-fought gains on issues in Afghanistan like women's rights and education. By announcing a timetable for the complete withdrawal of United States and international forces before inter-Afghan negotiations have even begun, I am concerned that we are in some respects undermining the Afghan Government and validating the Taliban's longstanding perception that they can wait us out.

Despite the specific timeline contained in the agreement, some in the administration have said that the 14-month timetable is aspirational and that we will have ample time to assess the Taliban's intent and capability to uphold their security commitments. General McKenzie, I hope you will help us better understand how we intend to monitor and verify Taliban compliance. In particular, do you believe it will be possible for United States Forces to conduct the rigorous monitoring and evaluation necessary to ensure that terrorist threats will not re-emerge in Afghanistan, while simultaneously carrying out a full-scale withdrawal?

I would also like to hear more about the commitments we have made to our Afghan partners and how our efforts to build credible security forces and institutions will be sustained. The Afghan Security Forces have been nearly completely built and funded by United States and coalition funds. Additionally, until the signing of the United States-Taliban agreement, the Afghan Security Forces also received robust advising and enabling support from United States and coalition forces on the ground and in the air. Even with a peace agreement, there is little to suggest that the Afghan economy will, within a foreseeable time frame, provide enough revenue to fully fund the country's security forces. Notably, the administration's fiscal year 2021 budget request contains funding for Afghan training and equipping programs that will extend well beyond the date of the planned departure of the last United States military personnel. It is important for this Committee to understand the plan to ensure those resources are invested in sustainable and responsible ways, especially given the likelihood of increased Taliban participation in the Afghan Government.

Despite the focus of the National Defense Strategy on a more resource sustainable approach to the national security challenges in CENTCOM, we have deployed more than 14,000 troops to the region since May in response to malign Iranian activity. While I understand the need to ensure U.S. personnel, facilities, and key stra-

tegic interests are protected, I question the extent to which we can deter asymmetric attacks by Iran through the deployment of additional conventional United States military forces to the region. Indeed, the rocket attack on Camp Taji in Iraq last night, reportedly carried out by Iranian-backed militia, would seem to challenge the notion that we have reestablished deterrence with respect to Iran. Overall, I believe that the administration's so-called maximum pressure campaign has isolated us from our allies, given Iran a pretext to violate constraints placed on its nuclear program by the Joint Comprehensive Plan of Action, and may in fact have increased the likelihood of conflict.

The killing of the leaders of ISIS and al Qaeda in the Arabian Peninsula were significant counterterrorism operations, and the administration should be commended for those operations. But the Turkish incursion into northern Syria, fallout from the killing of General Soleimani, and political unrest in Iraq, Lebanon, and elsewhere have disrupted our efforts against ISIS. I remain concerned about the long-term disposition of the more than 10,000 ISIS fighters being held by the Syrian Democratic Forces, as well as the unknown number of internally displaced people that retain an allegiance to ISIS. General McKenzie, I look forward to an update on CENTCOM's operations to ensure these groups are not able to reemerge.

Thank you, Mr. Chairman, very much.

Chairman INHOFE. Thank you, Senator Reed.

General McKenzie, we will recognize you for your opening statement. As you know, your entire statement will be made a part of the record.

STATEMENT OF GENERAL KENNETH F. MCKENZIE, JR., USMC, COMMANDER, UNITED STATES CENTRAL COMMAND

General MCKENZIE. Chairman Inhofe, Ranking Member Reed, distinguished members of the Senate Armed Services Committee, thank you for the opportunity to appear before you to provide an operational update and testimony in support of the fiscal year 2021 budget request pertaining to CENTCOM's area of responsibility (AOR).

My senior enlisted leader, Fleet Master Chief Jamie Erdell of the Navy, is also with me here today, seated immediately behind me.

I appreciate very much your remarks about the sacrifices of Captain Navas and Gunnery Sergeant Pongo, as well as Corporal Zavala, a marine who was killed in a vehicle rollover during an exercise in UAE [United Arab Emirates] just a couple of days ago. Additionally, the two United States servicemembers and the United Kingdom servicemember who died in the attack at Taji yesterday in Iraq—they will be remembered.

Today there are nearly 90,000 men and women serving throughout the 20 nations comprising United States Central Command, as well as our headquarters in Tampa. I am proud of their remarkable dedication and humbled by their personal sacrifice, and it is my honor to serve with them. They are young Americans in the line of fire, working to prevent attacks on the Homeland, counter destabilizing regional influence, prevent the proliferation of weapons of mass destruction, and ensure the freedom of navigation through

international waterways. Your annual and timely passage of both the National Defense Authorization Act and the Defense appropriations bills honors their courage and sacrifice, and I encourage you to maintain this tradition.

Keeping a pledge from my confirmation hearing before you here in December 2018, I appear now and offer you my best military advice. While my written statement highlights several nations and areas of interest within the Central Command area of responsibility, my opening statement today will focus on Iran.

The National Defense Strategy directs us to work with partners to deny the Iranian regime all paths to a nuclear weapon and to neutralize Iranian malign influence. This is no easy task. Iran's regime is persistent and resilient, growing its arsenal of ballistic missiles despite international condemnation. Iran remains the world's largest state sponsor of terrorism. Since May 2019, Iranian proxies and Shiite militia groups in Iraq have increased attacks on United States interests and conducted scores of aerial unmanned system reconnaissance flights near United States and Iraqi security force bases. The Iranian regime has attacked or seized foreign vessels in the Gulf, sponsored attacks by Houthi forces from Yemen into Saudi Arabia, continued the export of lethal aid to destabilizing groups throughout the region, and in September 2019, carried out an unprecedented cruise missile and UAS attack against oil facilities in Saudi Arabia.

In early January, Iran launched more than a dozen ballistic missiles in a deliberate attack against United States and coalition forces at two bases in Iraq. This state-sponsored missile strike crossed the threshold compared to previous attacks and has probably set a lower bar for future actions by the regime.

Yesterday, hostile forces, most likely Shiite militia groups, launched more than a dozen rockets at United States and coalition forces at Camp Taji in Iraq, killing two United States and one British servicemember, as well as wounding several more. While we are still investigating the attack, I will note that the Iranian proxy group Kata'ib Hezbollah is the only group known to have previously conducted an indirect fire attack of this scale against United States and coalition forces in Iraq.

While periods of decreased tension may provide the illusion of a return to normalcy, ample intelligence and indeed yesterday's actions indicate the Iranian regime's desire to continue malign activities that threaten lives, destabilize sovereign nations, threaten freedom of navigation, regional commerce, global energy supplies, and the global economy itself.

At CENTCOM, we recognize that so long as the United States applies diplomatic and economic pressure, the joint force must be postured to deter Iran from employing the military element of power to counter our actions. Our presence sends a clear message about our capabilities and our will to defend partners and U.S. national interests. Going forward, it is CENTCOM's objective to posture forces in the region with the operational depth to achieve a consistent state of deterrence against Iran and to be adaptable to future Iranian threats.

The Department's fiscal year 2021 budget supports CENTCOM's ability to keep our forces agile, lethal, and adaptable.

As we work with our partners to safeguard our mutual interests, we do so with the knowledge that we are stronger together. Key to building and maintaining partnerships is the authorization, funding, and employment of security assistance programs. Additionally, the National Guard State Partnership Program cultivates relationships and improves interoperability with six nations across the CENTCOM AOR, with more applying for entry this year. Again, the 2021 budget supports building new partnerships and enabling the formation of an enduring Middle East coalition.

As CENTCOM continues ongoing operations, we appreciate the efforts of our DOD [Department of Defense] civilian leadership. We acknowledge the teamwork of the interagency, and we thank the Members of Congress and your staffs, without whose consistent backing we would be unable to accomplish our mission. In order for America's armed forces to sustain all-domain dominance, the Department requires your support, as well as predictable, adequate, and timely funding.

Mr. Chairman, Ranking Member, and Committee Members, thank you again for all you do for our troops and families, and I look forward to your questions.

[The prepared statement of General McKenzie follows:]

PREPARED STATEMENT BY GENERAL KENNETH F. MCKENZIE, JR.

INTRODUCTION

When United States Central Command (CENTCOM) formed in the 1980s, the United States military trained and equipped to fight high-end warfare against the Soviet Union under conditions of limited communications and the routine employment of nuclear weapons. Times changed; the wall fell. The United States welcomed change in Russia while retooling heavy conventional forces to fight an 18-year protracted global counterterror campaign. Simultaneously the Islamic Republic of Iran, emerging from its 1979 revolution, embarked on a deliberate and extended campaign of terror and violence across the Middle East, directly engaging or sponsoring partners in a 40-year-long struggle against the U.S. and our allies.

Today the rise, fall, and rise again of Russia; the continuing asymmetric campaign of violence and coercion by Iran; and the emergence of China as our pre-eminent economic and military power competitor signal that while the nature of war is unchanging, the character of war has evolved. CENTCOM acknowledges our nation does not have the luxury of a single strategic focus. The Joint Force must posture globally with the ability to balance multiple priorities and tasks, from combat with peer competitors to expeditionary counterterrorism operations, understanding that the nation's top defense priority must relentlessly focus on adversarial great powers that possess the power and means to destroy our country.

While Iran lacks the capability to destroy us, its regime's hatred of the United States and growing arsenal of ballistic missiles, cyber reach, and depth and breadth of its terror networks clearly position it as a priority, although clearly and inarguably not the main one. The U.S. National Defense Strategy (NDS) directs the United States to work with partners to deny the Iranian regime all paths to a nuclear weapon and neutralize Iranian malign activity. While this is only one aspect of the NDS, it is directive for the Department of Defense and a key task for both CENTCOM and EUCOM.

The current United States policy of maximum pressure against Iran is supported by the deterrence provided by our United States force presence, which helps to stabilize the region and acts as a counterbalance against the Iranian regime's overt and covert military responses. The ramifications of this policy have led to direct and indirect Iranian military threats and actions against United States interests in the region, and similar threats to U.S. national security interests globally. Iran's lack of effective economic or diplomatic levers to counter the United States maximum pressure campaign has caused it to resort to pursuing overt and covert military options against the U.S. and our partners. The Iranian regime's strategy seeks to undermine international and regional support for U.S. policies with attacks and threats against U.S. interests and those of our partners and allies.

CENTCOM plans and executes missions across its area of responsibility (AOR), but embraces a global planning perspective supporting national objectives and the execution of global military campaigns. Adjustments in U.S. global force posture to support the NDS compels the U.S. to accept greater risk in the CENTCOM AOR. We recognize significant future conflicts will be trans-regional, cutting across multiple global combatant commands, and involving multiple domains. The ongoing global fight against the Islamic State (ISIS) and other violent extremist organizations (VEOs) provides a stark example of this threat.

As CENTCOM approaches its missions, acknowledging priorities outlined in the NDS, we also remain keenly aware that our adversaries in the region retain a willingness to contest our actions. Iran's regime is not a peer competitor to the United States, but it does possess the ability to negatively affect global commerce, trade, and the world's energy supply. These malign actions, while not posing a direct threat to the U.S. Homeland, significantly threaten our national interests abroad, those of our allies and partners, and negatively affects the U.S. military's long-term posture as we react to immediate threats. During my year in command, I have observed multiple Congressional engagements to the CENTCOM AOR. Your oversight, partnership and advocacy, based on first-hand knowledge, lays the foundation for enduring success.

CENTCOM PRIORITIES

Deterring Iran. The long-term challenges we face in the CENTCOM AOR are the destabilizing and escalatory actions of the Iranian regime. The Iranian regime's quest for nuclear weapons, coupled with its hegemonic ambitions, misbehavior, and threats to the United States and its regional partners have been consistent elements of its policy for decades. Deterring Iran from its destructive and destabilizing activities in the military domain underpins everything we do, and is CENTCOM's top priority. Until such a time as the regime in Tehran decides to be a responsible member of the international community, CENTCOM must work to establish and maintain military deterrence with Iran, notably within the context of the ongoing economic and diplomatic maximum pressure campaign.

Since May 2019, Iranian-supported groups in Iraq have attacked United States interests dozens of times and conducted scores of unmanned aerial system (UAS) reconnaissance flights near United States and Iraqi Security Force (ISF) bases. The Iranian regime has attacked or seized foreign vessels in the Gulf, facilitated attacks by Houthi forces from Yemen into Saudi Arabia, continued to export lethal aid to destabilizing groups throughout the region including those aiming to attack Israel, supported the Assad regime's brutal conflict against its own people, and carried out an unprecedented cruise missile and UAS attack in September against Saudi oil facilities that destabilized international energy markets. In early January, Iran launched more than a dozen ballistic missiles in a deliberate attack against United States and Coalition forces in Iraq. This state-sponsored missile attack, in response to the United States killing the Islamic Revolutionary Guard Corps Quds Force commander, Qassem Soleimani crossed a threshold compared to previous "grey-zone" attacks and may set a lower bar for future actions by the regime. While periods of decreased tension may provide the illusion of a return to normalcy, ample intelligence exists indicating the Iranian regime's desire to continue malign operations that threaten lives, disrupt the internal matters of sovereign nations, and threaten freedom of navigation, regional commerce, global energy supplies, and the global economy.

CENTCOM recognizes that so long as the United States continues to apply diplomatic and economic pressure against Iran, the Joint Force must be postured to deter Iran from using the military element of power to counter our actions. While our steady-state posture does not require offensive forces in theater to achieve overmatch or unintentionally provoke Iran's regime, our presence sends a clear and unambiguous signal of our capabilities and, most importantly, the will to defend partners and United States national interests. This exemplifies the concept of deterrence.

Deterrence is not a military concept, but a diplomatic and political construct obtained from the effect demonstrated capabilities have on the mind of a potential opponent. Deterrence can be contested—Iran's regime retains the ability to interfere with our efforts to deter. Historically, Iran has never doubted the United States capability to respond, but frustrates our ability to do so by focusing on deniable, hard to attribute activities. Targeting the Kata'ib Hezbollah group and Soleimani clearly demonstrated United States will. Our posture—the bases, forces, and activities that we undertake—maintains the other half of the deterrence equation: capability.

Reduction of United States forces in the AOR combined with a perception of United States disinterest in the Middle East fueled thinking in Iran in the spring of 2019 that the United States was no longer committed to defending our national interests in the region. That misperception led directly to the cycle of escalation that crested in January 2020. In order to maintain the contested deterrence our recent military actions have re-established, Iran's regime must continue to see the United States has enough forward-deployed forces for a credible military capability, that we are willing to employ that capability for defense of U.S. interests with conviction, and any decision to contest our actions will not yield a positive outcome.

Deterrence can be difficult to establish and measure, and costly to maintain. CENTCOM prosecutes numerous missions simultaneously, scattered across the breadth and depth of the region, all in areas suffused with Iranian-backed forces continuing their decades-long struggles against us. While the cost of regaining and maintaining deterrence is expensive, it is less expensive than the deployment of forces required to fight in full-scale conflict: the failure of deterrence. CENTCOM's objective is therefore to posture forces with operational depth in the region to achieve a sustained state of deterrence against Iran's regime without undue provocation, and to be adaptable to future Iranian threats while the United States maximum pressure campaign continues. In addition to posture, a key part of deterrence is intelligence, surveillance, and reconnaissance (ISR). While presence can fluctuate based on deterrence needs, consistent ISR is necessary to identify subtle changes that shape posture and ensure we align our presence appropriately.

Negotiated Resolution of the Conflict in Afghanistan. All wars must have a political end. Reconciliation between the Taliban and the Government of the Islamic Republic of Afghanistan represents the best option for bringing the 18-year-long fight in Afghanistan to a favorable conclusion, while meeting long-term United States security requirements. CENTCOM efforts support the United States South Asia Strategy and remain fully aligned with the efforts of United States Special Representative for Afghanistan Reconciliation, Ambassador Zalmay Khalilzad.

Our military mission in Afghanistan continues in support of our overriding national interest: preventing terrorist attacks against the Homeland from Afghanistan and Central Asia.

Safeguarding this means we must remain focused on retaining a counterterrorism platform under any of the multiple political eventualities that may take shape. United States Forces-Afghanistan continues to examine efficiencies in force structure to reduce our military footprint and reduce costs while maintaining counterterrorism pressure on VEOs and provisioning the capability to do so in the future. We also continue to help the Afghanistan National Defense and Security Forces develop and refine their force generation processes for campaign sustainability. Without continued pressure, groups such as the Islamic State-Khorasan (ISIS–K) will regain the ability to mount or sponsor a transnational terrorist attack within a few years. Your support to our critical authorities such as the Afghanistan Security Forces Funding, Commander's Emergency Response Program, Coalition Support Fund, and others have remained paramount during this transition.

Maintaining Defeat-ISIS Campaign in Syria and Iraq. Similar to Afghanistan, most of the United States intelligence community predicts that without sustained pressure levied against it, ISIS has the potential to reconstitute in Iraq and Syria in short order, beyond the current capabilities of the United States to neutralize it without a capable, partnered ground force. Syria remains a dynamic situation with multiple parties and agendas involved. The Syrian regime, with support from Russia and Iran, continues to seek a military victory. We are seeing this play out in northwest Syria as the Assad regime, Russian, and Iranian campaign of violence has escalated since

December, resulting in almost one million more displaced persons, innumerable people injured or killed, with many more in critical need of assistance, and dangerous clashes between our NATO ally Turkey and the Syrian regime. We likewise see the Assad regime continuing its use of chemical weapons in blatant violation of its commitments to the Chemical Weapons Convention—deterring this use in the future remains a CENTCOM priority. In eastern Syria, United States and Coalition forces under command of Combined Joint Task Force-Operation Inherent Resolve assist with ensuring the lasting defeat of ISIS, including safeguarding energy sources to prevent their seizure by ISIS for revenue generation. Moving forward, we must continue our support to NATO ally Turkey and our D–ISIS partner force, the Syrian Democratic Forces (SDF), while maintaining deconfliction with Russia, which, along with the Assad regime, aggressively challenges the Coalition mission in various ways.

Despite the death of Abu Bakr al-Baghdadi in October, ISIS remains a threat in Syria, with most of its activity focused on reestablishing networks; assassinating

and intimidating local leaders and security forces; and extending its influence in rural areas throughout eastern Syria and Iraq.

Iraq remains a strategic partner in the fight against ISIS and is key human and geographic terrain. We remain in Iraq at the request of the Government of Iraq (GoI) for one mission: the defeat of ISIS. Hindering our ability to work with the ISF toward this objective are rogue elements of the Popular Mobilization Forces more beholden to Iran's regime than the GoI. Some of these militias smuggle advanced weapons into Iraq from Iran, not to defend the country from ISIS, but to undermine existing security and threaten United States and Coalition forces partnered with the GoI. Given ISIS' demonstrated tenacity and ability to reconstitute, we cannot afford to divert focus from the D–ISIS mission, understanding that the territorial defeat of ISIS does not mean the absence of ISIS. The years ahead will not be bloodless. Attacks may continue in the form of an insurgency, but the goal is to develop and enable the ability of the Iraqi Security Forces to contain and defeat ISIS without external assistance.

Countering the UAS Threat. In the aggregate, the U.S. maintains air dominance across the AOR but lacks a comprehensive joint solution to counter the growing Unmanned Aircraft System (UAS) threat. Inexpensive and easy to proliferate, UASs provide adversaries the operational ability to surveil, target, and attack U.S. and partner facilities, providing the means to engage in mass-casualty or large-scale, critical infrastructure attacks with cheap, off-the-shelf technology while affording deniability and a disproportionately high return on investment.

CENTCOM employs current systems and tactics to best equip and enable U.S. Forces to meet this challenge, but the growing threat posed by UASs, coupled with our lack of dependable, networked capabilities to counter them is the most concerning tactical development in the CENTCOM AOR since the rise of the Improvised Explosive Device (IED). Just as the IED threat galvanized operational, industrial and scientific communities in the U.S. toward the development of solutions like the Mine-Resistant Ambush Protected Vehicle (MRAP), we are fast approaching a juncture requiring a similar mobilization to counter the UAS threat. Your support and funding of Science and Technology is vital to our success in the Great Power Competition.

Weaponization of Internally Displaced Persons (IDPs) and Refugees. The manipulation or co-opting of IDPs and refugees by an adversary to gain a political, military, or economic advantage is not historically uncommon. However, in vast swaths of Syria and Iraq the systematic indoctrination of IDP and refugee camp populations who are hostages to the receipt of ISIS ideology is an alarming development with potentially generational implications.

There is no known, successful methodology of de-radicalization for hard-core ISIS believers. This radicalized population currently numbers in the thousands and preys on the disenfranchised and weak IDP and refugee populations already highly susceptible to extremist indoctrination. The longer these IDPs remain in refugee camps, the more likely they are to become radicalized. While there is no military solution for de-radicalization, the military can set the conditions for stability and security necessary for these populations to return to their original homes and begin the process of regaining power over their own lives. The sheer number of IDPs and refugees presents a challenge to the timeline along which necessary levels of long-term stabilization can take root.

Also concerning are near- and long-term implications of SDF detention facilities in Syria and the disposition of foreign-terrorist fighters (FTFs). While CENTCOM and our coalition partners are working to address and mitigate security challenges at the facilities, this serves only as a tactical-level band-aid, not a long-term solution. The United States can mitigate the risks associated with these populations by facilitating repatriations, training and equipping guard forces, and providing the funding required to improve prison infrastructure. Ultimately, the best way to alleviate this problem is to reduce the numbers of detainees through repatriation. The ISIS detainee and IDP populations represent more than 60 nations. While some countries have made efforts to reclaim their foreign fighters, full resolution requires a comprehensive diplomatic and international effort. This problem will not go away by ignoring it, and can only be addressed by the international community working together to accept its shared responsibilities.

As noted, military solutions do not exist for the issues of de-radicalization and repatriation of FTFs. They are international problems requiring international solutions. The longer these conditions persist; the IDP population becomes more and more ensconced in ISIS philosophy creating a petri dish of future terrorists. Action now by the international community is imperative to protect our Homeland and our allies. Left unchecked, these issues are a ticking time bomb with the potential to spark the resurgence of ISIS, despite the destruction of the physical caliphate we

and our allies and partners have worked so hard to accomplish. Your support to increase Special Immigrant Visas in Afghanistan and stabilization funding is much appreciated by me, our troops, and our partners.

BASING AND POSTURE IN THE CENTCOM AREA OF RESPONSIBILITY (AOR)

Fragile security environments across the AOR reflect a variety of contributing factors, including heightened ethno-sectarian tensions, economic uncertainty, weak or corrupt governance, and exploitation by VEOs which have clearly indicated their desire and intent to attack the Homeland, United States interests abroad, and the interests of our partners and allies. At the same time, the AOR is growing increasingly crowded with external nation-states, such as a resurgent Russia and expansionist China, pursuing their own interests and attempting to shift historical alliances. These dynamics necessitate that CENTCOM explore options with regional partners to posture itself in depth across our AOR to create efficiencies, and increase strategic depth, resiliency and operational agility. With the enactment of the Fiscal Year 2020 NDAA, Section 1263, I look forward to the posture review and reporting back to Congress with the findings.

Over the past year, CENTCOM has re-evaluated its posture, taking action to close, consolidate, or in some cases expand some of its air, land, and sea bases; as well as access, basing, and overflight rights with our partners. Some of these actions represent immediate, near-term adjustments for survivability and to improve our deterrence capabilities—like the buildup of Prince Sultan Air Base in the Kingdom of Saudi Arabia. Other decisions are driven by long- term efforts to achieve cost savings, and increase interoperability or partner burden sharing—like the establishment of CENTCOM Forward-Kingdom of Saudi Arabia. This forward deployed element assesses requirements and integrates U.S. Forces into an international collective defense effort.

The Western Sustainment Network is a newly-created logistics system extending from the Red Sea and Mediterranean Ports to the Arabian Gulf, designed to mitigate the potential impact of chokepoint closures at the Bab Al Mandeb and Strait of Hormuz. To build sustainment depth over the last year, CENTCOM has increased deployment and redeployment traffic across the Arabian Peninsula, shipped ammunition to Kuwait from the Red Sea, negotiated movement of materiel and supplies across borders affected by the Gulf Rift, and developed the port of Duqm in Oman. Developing this operational depth enhances protection of critical infrastructure while providing reduced cost options for deployment and obviating the need to transit potentially contested maritime chokepoints. This network increases our agility, enables Dynamic Force Employment, and reduces deployment timelines in the event of a contingency, thereby reducing risk and providing additional strategic options. Taken together, the result is a tailored, responsive basing network, connected by dependable lines of communication with AOR-wide reach, supported by prepositioned equipment and supplies to facilitate the rapid movement and employment, of U.S., allied, and partner forces.

Armed with the knowledge that resources are at a premium, and a pragmatic appreciation that each country is working through its own challenges with economic and social reforms, CENTCOM supports initiatives that approach defense from a cooperative perspective. This is the only practical way to approach the problem. The reality on the ground is that every partner country cannot afford to have their own Patriot battalion, nor should they; just like every U.S. combatant commander cannot retain their own heel-to-toe carrier strike group.

The International Maritime Security Construct (IMSC), which achieved initial operating capability in November 2019 and full operating capability in January 2020, provides an instructive example of this kind of regional cooperative effort. Participating nations include the United States, U.K., Albania, Australia, Bahrain, Saudi Arabia, and UAE, working together to support freedom of navigation and maritime domain awareness in the Strait of Hormuz and assist in attribution of malign actions in these vital waters. The vessels and aircraft of IMSC member nations provide vigilance, surveillance, and assurance, supporting the free flow of commerce through the critical choke points of the region.

In the air domain, CENTCOM operates in an environment where our partners possess and operate the majority of air and ballistic missile defense capabilities in the theater. This compels CENTCOM to lead efforts to establish a framework to coalesce and optimize each Gulf Cooperation Council (GCC) nation's individual ballistic missile defense capabilities into a regional, integrated air and missile defense construct to defend against the shared threat posed by Iran and the proxies it controls. Our GCC partners contribute to interoperability through purchase and use of Patriot, Theater High Altitude Air Defense, and the development of the GCC Ballistic

Missile Early Warning System—a collective system of systems across the Arabian Peninsula designed to establish an effective early warning and supporting architecture to benefit all GCC Partners. The Link-16 system provides a combined, integrated air picture through a shared network of sensors and systems across the AOR to receive, populate, and share information among partners. CENTCOM builds confidence and proficiency among our partners through combined, distributive IAMD exercises that leverage virtual and simulated technologies to bridge the geographic distances across the region.

As we work with our partners along collaborative lines of effort to safeguard our mutual interests, we do so with the knowledge that we are stronger together, and our strategic strength has never rested on the volume of materiel we bring to the fight, but the partnerships and whole-of-government efforts no other country in the world can match. Key to building and maintaining these partnerships in the region is the enduring authorization, funding, and combined employment of the Department of State's (State) security assistance (SA) and DOD security cooperation (SC) and security assistance (SA) programs. The Defense Security Cooperation Agency administers the Department of State's Foreign Military Sales (FMS) programs, with our partners' capabilities, interoperability, and burden sharing. Foreign Military Sales in CENTCOM totaled nearly $23 billion in 2019, accounting for more than 42 percent of all FMS globally. The National Guard State Partnership Program (SPP) cultivates relationships and improves interoperability with six nations across the CENTCOM AOR currently, with more considering entry.

CENTCOM supports the execution of over $2 billion annually in SA funds, consisting of $1.7 billion in Department of State Foreign Military Financing to obtain articles, services, or training; $265 million in Department of Defense Section 333 funds authorizing the U.S. to help partner nations build capacity; $17 million in Department of State International Military Education and Training (IMET) to improve interoperability and establish relationships with future leaders; $4 million for the Counter Threat and Irregular Warfare Fellowship Program; and $3.6 million for the Wales Initiative Fund (WIF). Taken together, these State and DOD programs help maintain U.S. influence, improve our posture and interoperability with partners, and create opportunities to advance U.S. objectives. The State IMET, and DOD WIF and SPP programs in particular often yield a far greater return on investment compared to the resources allocated against them. On average, over 5,500 students receive U.S. military education and training through our SA and SC programs annually.

CONCLUSION

The U.S. must posture itself globally to contend with an array of security challenges detailed in the NDS. While Iran represents but one of those national security challenges, deterring the Iranian regime is the primary security challenge for CENTCOM and critical for ensuring the Department can focus on near peer competition rather than an expansion of conflict in the Middle East. The rapid escalation from grey-zone conflict to open, kinetic strikes between the United States and Iran in January of this year underscores the immediacy of this threat, and the need for vigilance paired with the proper capabilities on hand necessary to deter the Iranian regime.

Readiness and capabilities allocated toward this mission are supportive of the NDS not only with regard to Iran, but also in the context of supporting great power competition as it manifests itself in the Middle East. As the United States reorients itself globally, our leadership, presence, and demonstration of commitment to our allies and partners in the region are crucial, now more than ever. We have an opportunity at this moment in history to establish the foundations of collective, effective collaborative security apparatuses throughout the region with the U.S. serving not as the core member, but a contributing member in a burden-sharing construct.

For more than 37 years, the men and women of CENTCOM—about 90,000 uniformed military and civilian strong today—have devoted themselves to securing United States national interests in the Middle East that help protect the Homeland. They operate in real time, against real enemies. Across 18 years of extended combat operations, the missions they have executed yielded tangible results. The steadfastness and sacrifice of our soldiers, sailors, airmen, marines, coast guardsmen, civilians and their respective families—is both humbling and inspirational. Public support for our mission, troops, and families is precious and not taken for granted. Your communication with your constituents is key in maintaining public support that serves as the bedrock and fosters morale, enabling the mission going forward.

As CENTCOM continues to fulfill its ongoing missions, we appreciate the efforts of our civilian leadership at the Department of Defense, acknowledge the teamwork

of the interagency, and thank the members of Congress and their staffs, without whose consistent and timely support we would be unable to accomplish our mission.

Chairman INHOFE. Thank you, General, very much.

For any of the Members who came in a little bit late, we announced that we are going to have a closed session immediately following this in SVC–217.

General McKenzie, in the past year, in response to the Iranian provocations, we have deployed some 14,000 additional troops to the regions,and you have indicated in your statement that more attacks from Iran are likely. If so, in what sense are these new deployments to the Middle East deterring—what level of deterrence do they provide? And is there another form of deterrence that might work?

General MCKENZIE. Chairman, I believe that deterrence is borne of an appreciation in the mind of the adversary of both capability and will, and we, over the last few months, have demonstrated both of that. As a result of that, I believe we have reestablished a rough form of deterrence, what I would call contested deterrence, with Iran at the level of state-on-state attacks. By that, I am referring to things like, obviously, attributable ballistic missile attacks from Iran launched against United States forces. They have stood their missiles down. They are no longer—I do not think that is an imminent threat.

What has not been changed is their continuing desire to operate through their proxies indirectly against us, and that is a far more difficult area to deter because they believe they can generate a measure of non-attribution with those attacks. We would not agree because we believe eventually we will be able to distill who is behind these attacks going forward. So we are in a period where state-on-state I believe we have achieved deterrence, but with their proxy activities—and while they are principally in Iraq, they are not limited to Iraq, and there are other areas where they are active as well. That is the period that we are in now with Iran, Mr. Chairman.

Chairman INHOFE. I appreciate that.

As it is right now, we have kind of a deal with the Taliban. We are bringing our troop level down from 12,000 to 8,600, and they, in turn, have commitments to us. I would have two questions. Are they keeping their commitments? Does it appear that they are keeping their commitments to us, and if not, what would be the next step after our withdrawal down to 8.6?

General MCKENZIE. So, Chairman, obviously my answer will concentrate on the military equities because that is what I am knowledgeable about. But I would tell you in terms of what we see the Taliban doing militarily, they are honoring some, not all of their commitments.

Let me give you an example. Attacks continue. Attacks continue at an unacceptably high rate across the country. Those attacks, although at a high rate, are not delivered into city centers, urban areas, or against coalition forces. Instead, the attacks are largely generated against Afghanistan outposts, checkpoints, and isolated combat units. So those attacks continue, and I would say that that level of attack by the Taliban is not consistent with an organization that intends to keep its word going forward. However, in other

areas they have not attacked into the urban areas. They have not attacked coalition forces, so we have a pretty good picture of what the Taliban is doing and is not doing. We have very good ways——

Chairman INHOFE. Well, we have a picture right now, but anticipating—let us say they do not keep them and they start going the other direction. What would be our action at that time?

General MCKENZIE. Sir, so we are on a glide slope to go to 8,600 U.S. Forces with our NATO partners in the country by the middle of the summer. At that level, we will still be able to pursue all of our objectives in Afghanistan.

Chairman INHOFE. So if they do not and it becomes obvious they are not keeping their commitments, we would maintain the 8.6 as opposed to going any lower.

General MCKENZIE. Chairman, that would be not a military decision but a policy decision.

Chairman INHOFE. Well, yes.

General MCKENZIE. But we believe that we are going to have ample opportunity to see if they are going to keep their word. In some areas they are; in some areas they are not. I am troubled by these attacks that continue to occur. There are obviously some political things that have to go forward that I am not the best person to talk about in terms of the Afghan Government, prisoner releases, and things like that. All of those things have to occur in order to find a path forward.

Chairman INHOFE. Let us go into Barzani. Senator Rounds and I had the opportunity to go through not just Iraq but Erbil and go up and spend time with him. Of course, there are kind of two groups they deal with—the Kurds are dealing with there, and one of them—a lot of people were upset and maybe I think misunderstood what the President was doing when he was talking about the Turks coming down into that area.

But as far as the senior—that would be Masoud Barzani—he is one that a lot of people are saying or trying to project that he has passed a lot of things to his son and to, I guess, his nephew. It has been my opinion that he is still in charge, and I am not going to ask you whether you agree or disagree with that. But I got a very clear message when we spent most of a day with him up in Erbil, and he is very satisfied that we are keeping our commitments now.

I really believe he is—I think we need to keep reminding people how many Kurds have lost their lives working with us.

So would you agree that he is now in pretty good shape with the United States in terms of our keeping our commitments to him?

General MCKENZIE. Sir, I could not agree with you more. I believe that is the case. As you know, we have a vision of a unified, single Iraq going forward and support that, and we believe he is a key element in that equation going forward.

Chairman INHOFE. We are talking about the senior Barzani.

General MCKENZIE. Sir, we are.

Chairman INHOFE. I agree with you. Thank you.

Senator Reed?

Senator REED. Well, thank you, Mr. Chairman.

Just to clarify a point that the Chairman has raised, the number that publicly has been released about the increase in forces in

CENTCOM since approximately last May is about 14,000. Is that accurate?

General MCKENZIE. Sir, it is a little less than that, and it varies as carriers come in. You know, when a carrier comes in, you are bringing 5,000 people in. Today I have actually two aircraft carriers in the theater. So the number is artificially a little higher. The number goes up and down.

Senator REED. But within a range of, say, 1,000 personnel?

General MCKENZIE. I would say it is over 10,000.

Senator REED. I know you are working on attribution of the attack last evening at Camp Taji. Have you finished that attribution?

General MCKENZIE. We are working it very hard right now in my headquarters as we speak now.

Senator REED. Thank you.

With respect to the agreement between the Taliban and the United States, looking at the public documents that are available, there is no reference to a prohibition of violence by the Taliban against the Afghan Government. There is at least an interpretation that what they are doing now, attacks against Afghan personnel in or outside cities, is within the scope of the agreement, that we would continue to go forward. Is that accurate?

General MCKENZIE. So when I have an opportunity to give advice on this subject—and I do have an opportunity to advise on this—I would not consider what the Taliban is doing as consistent with any path to going forward to come to a final end state agreement with the current Government of Afghanistan. Those attacks are going to have to come off considerably.

But we are never going to be a bloodless state in Afghanistan. As you know, there are pockets in Afghanistan that probably still think the Russians are there. So it is never going to be perfect, but we need to get way below where we are now.

Senator REED. There is, though, a possibility that they could, at least until we withdraw, maintain their CT commitments but continue active operations against the Afghan Government. In fact, it could escalate to what would be either a major or a significant civil war in the country. Would we still be in the position or still be predisposed to depart?

General MCKENZIE. Sir, just speaking looking at the military equity, it is difficult to see how if the Taliban is still pursuing large-scale operations against the Afghan Government, against Afghan Government forces, it would be possible for us to maintain a CT platform there without a significant presence. It is just hard to see how you would get to that level.

Going smaller requires integration, requires intra-Afghan dialogue and some way forward involving both parties.

Senator REED. Implicit in what has been discussed by the administration about the arrangement is that the final departure will be conditions-based. But those conditions have not yet been specified. Would you decide the conditions, or how will those conditions be established?

General MCKENZIE. So what would happen is General Miller through me—we would report the military conditions on the ground, and that would be an input into the larger element of that. But for military conditions, I think again we have got a very clear

vision of what is happening there. Taliban attacks against the government would have to go down to a far lower level than they are now. That would be probably the principal thing. Intra-Afghan dialogue should ideally lead to some condition where the Taliban can never be part of some future Afghan military. That would be a matter for the Afghans, not for us. But it is hard to see how you can go forward without some intra-Afghan dialogue that takes you to that.

Senator REED. Well, just one point is it takes two sides to have a dialogue, and the current Government of Afghanistan is in some disarray. You have two individuals claiming that they are president. You have dual inaugurations. It is slightly outside your lane, but that is a complicating factor I think.

General MCKENZIE. Sir, it is.

Senator REED. With respect to our involvement, even with an intra-Afghan dialogue and even on a sort of an optimistic thing, you would assume that if there is that dialogue, there will be some jointness in the government. Taliban elements coming into the government.

It comes down to sustainability over the long run, and as you well know, their defense budget is about $6 billion a year. We and our coalition partners provide $4.5 billion a year. If we were to pull that money or decrease it significantly, their ability just to function as a military and police force in the nation would probably be gutted. Is that fair?

General MCKENZIE. Sir, I would agree with that assessment.

Senator REED. We are going to be faced—this is the best scenario—with a government that might be Taliban, et cetera not fully consistent with all of our values and views, and we would still be asked and need to provide billions of dollars. Is that fair?

General MCKENZIE. Sir, it would. But my advice—and obviously, many of those things are outside of my competence. My advice would be are we able to do the thing we are there to do, which is to prevent the generation of attacks against the United States and our Homeland and those of our allies from ISIS and al Qaeda, typically in eastern Afghanistan. Is what you have described going to yield that result? And that would be the basis for any advice that I would give.

Senator REED. Thank you very much, General. Thank you for your service.

Chairman INHOFE. Senator Cotton?

Senator COTTON. General, thanks for coming back. This is the first appearance since your troops killed Qassem Soleimani. I want to commend you for your role and their role in removing the world's worst terrorist mastermind from the face of the earth.

Is it fair to say that Iran's leaders were somewhat chastened by the killing of Qassem Soleimani?

General MCKENZIE. I think it is. Just a little earlier, we talked about capability and will. They have never doubted our capability. They often doubted our will, and I think that gave them something to think about.

Senator COTTON. Back in the day in the 2000s, Qassem Soleimani traveled with extreme operational security. Is that correct?

General MCKENZIE. That is correct.

Senator COTTON. During much of the 20 teens, did he shed that operational security and travel more openly to the point of posting pictures of himself on social media?

General MCKENZIE. Well, I think he communicated a lot to a lot of different people. I would just leave it at that.

Senator COTTON. Suggesting that he felt a degree of impunity to travel around and wreck havoc against the United States, impunity that he did not have after all.

Let us stay on Iran, and let us talk about coronavirus in particular. We obviously know that it has impacted some of the senior leaders in their regime. We have seen it on television news. Do you have an assessment of just how extensive it is among Iran's leadership?

General MCKENZIE. Certainly. You know, we have seen public admissions of various senior leaders that are ill and a couple that have actually died. I think it is having an affect on how they make decisions, and I think it slows them down.

There are a couple pressures on Iranian leadership right now. One is the outrage after the shoot-down of the aircraft after their attack on Al-Asad. That coupled with their inability to effectively respond to the coronavirus is, I think, inducing pressure on and inside the leadership. Of course, we watch that very closely. It is a very opaque state, very hard for us to see in there. But I believe the numbers are probably significantly under-reported in terms of coronavirus victims in Iran. So we look at that pretty hard going forward. Because the permeability and porousness of the borders, Iran sits in the middle of a theater. So their ability to pass that infection to other states is very worrisome.

Senator COTTON. I suspect it actually may be the worst outbreak anywhere in the world, contrary to what Iranian media would say. Does that presumably apply to Iran's troops as well, both their regular military and IRGC troops, if their society is facing this widescale outbreak? Do you assess that their troops are as well?

General MCKENZIE. I would say it is going to have some affect on the military instrument. We look at it as hard—we can talk a little bit more about this in closed session, sir, and I would like to do that. But we watch that very closely.

Senator COTTON. What do you assess to be the impact of the oil price collapse over the last 4 days on Iran's Government and its military capabilities?

General MCKENZIE. Sir, I think it probably hurts them. They are under grave pressure right now through a variety of economic instruments, you know, the sanctions that are applied against them. I do not think this particularly helps in any way. I think they have an active policy of trying to find ways to swap tankers around the do that, which is marginally successful. So I do not think it means anything good for them. Aside from that, I would just like a little more time to take a look at it. But I do not think it is a good thing for Iran.

Senator COTTON. There has been some talk around the world about providing more humanitarian aid to Iran. Secretary Pompeo recently called for Iran to release all foreign national prisoners be-

fore our Nation provides them humanitarian aid. Do you think that is a reasonable step?

General MCKENZIE. I defer to the Secretary of State on that one.

Senator COTTON. What about coronavirus among our troops? What steps are we taking there?

General MCKENZIE. In the theater right now, we have one contractor with symptoms. We have another person who actually picked it up at the airport after he returned from a trip outside the theater who is in quarantine as well. So we watch that very, very closely.

Right now, we believe we have good precautions in place. We have cut back significantly on intra-theater travel. For example, someone in—pick a place—Kuwait who wanted to go to UAE maybe for a weekend of elective liberty—we do not do that anymore. So that travel is mission-essential only. Just yesterday, we put some restrictions in going into Bahrain as well from outside the theater.

So what we are trying to do is maintain isolation so that we protect the critical functions that we have to do. There are some things where we just cannot accept the risk of an infection. So we look very hard at those things and try to maintain good physical separation.

Senator COTTON. One final question. You say on page 9 of your written testimony that unmanned aircraft systems are, quote, the most concerning tactical development in the CENTCOM area of operations since the rise of the improvised explosive device. Anyone who knows what those improvised explosive devices did to our troops in Iraq and Afghanistan would find that a very troubling statement.

We have spent billions of dollars in the Department of Defense on counter-drone systems. I am concerned that we are still under grave threat to them. But I am also encouraged to see that your command has been experimenting with so many new and more effective counter-drone systems. I am worried that they are not widely fielded yet. So I am just wondering if you could talk to us a little bit about whether your needs are being met and what this Committee could do to be more effective on counter-drone systems.

General MCKENZIE. Sir, the Department is working very hard. As you know, executive sponsorship for this program has gone to the Army, which I think is good. It will focus it and be even more responsive to our requirements.

I think the key thing is right now, we are simply at a stage in the development of these systems, and you see it in the back and forth of warfare where the advantage is with the operator and with the offense. We will catch up. It is going to take us a little time to do that, and really, it is what we would call the group 1 and group 2's that concern me the most, the small ones that you can go and buy at Costco, you know, duck tape a grenade or mortar bomb to and fly it into an objective. The larger ones—we have ways to deal with them because they are more like aircraft in a traditional way, although they are still very concerning.

So we have not yet integrated a solution to this. The Army has a lot of great ideas, and there are a variety of other good things out there that are working. We just have not yet managed to bring

it all together. We work this every day, and I believe the energy is there, but we are still solving the dynamic.

Senator COTTON. Thank you.

Chairman INHOFE. Senator Blumenthal?

Senator BLUMENTHAL. Thanks, Mr. Chairman.

Thank you for being here, General, and thank you for your service over many, many years.

You have not been here, as has been remarked, since the hearing on December 4th, 2018. So we are very glad to have you back. A lot has happened.

Unfortunately, a lot of the information that this Committee receives is behind closed doors in a classified setting. Reference was just made to it by the Chairman to follow this meeting. I am very concerned that the American people, as well as servicemembers and military families, are lacking the kind of transparency and accountability that they really deserve and that is necessary for the American people to assess how we are doing in CENTCOM and other places around the world. I do not know whether you have any comments on that. But the over-classification, the excessive secrecy denies the American people the opportunity to know about the brave and dedicated service of the troops in your command and what they have accomplished, as well as the challenges going forward.

I might just also say that your testimony today at 15 pages is considerably shorter than the more than 40 pages of written testimony that your predecessor, General Votel, provided. I am not judging the quality by the quantity of pages, but I wonder whether you have any plans to submit additional comments or background that would elaborate on some of the conclusions, particularly as to the issue that Senator Cotton just raised which I think is very important, unmanned aerial aircraft, and the threat they pose, analogous to the IEDs [Improvised Explosive Devices] which were easy to make, proliferated in the region, caused more than 50 percent of the deaths and a major part of our casualties. I can see the same happening with these off-the-shelf kind of items that similarly pose a threat of many repeated small-scale attacks on our troops or Afghanistan's.

Let me just ask you on the issue of transparency, I am at a loss to know why the annexes to our agreement have not been made public. Obviously, they are known to the Taliban. Is there any reason why we cannot make them public so the American people can see them?

General MCKENZIE. Sir, I am going to defer that to the Department of State. They are actually the classifying authority in this case. So I would defer to them.

Senator BLUMENTHAL. In your military opinion, just from a military standpoint—I realize there may be other factors—do you see any obstacle to making them public?

General MCKENZIE. So obviously as I work the military side of the problem, I have visibility with the annexes. They are useful for me to have. But I would defer the question to wider publication to the Secretary of State.

Senator BLUMENTHAL. I know you are deferring the ultimate decision, and I apologize for belaboring this point. But strictly from

the readiness, the preparedness, the effectiveness, and the ability to accomplish missions in the field, I am at a loss to see any reason why they cannot be made public.

General MCKENZIE. So from a purely military perspective, that is correct. But there are other issues beyond the military that need to be considered, and I would not be competent to pass judgment on that.

Senator BLUMENTHAL. Thank you.

Let me ask you in terms of COVID–19 and its impact on Iran, is it likely that the crippling effect of this disease on certainly the political structure, the economy, and possibly the military are delaying any reprisals for the killing of Soleimani?

General MCKENZIE. Sir, we spent a lot of time talking about that very point, and the short answer is I just do not know. I would tell you that totalitarian, authoritarian regimes, when they are under extreme pressure, typically react by looking to an external threat. There is very little evidence in the history of warfare of a regime that has a crippling internal problem that decides to focus on solving the crippling internal problem that is the source of all their problems rather than looking for something to unify the masses of its people against an external target. So I am informed by that view, and that I think is a possibility.

They are fractured now, and they are having difficulty dealing with a number of things. So I think it probably makes them, in terms of decision-making, more dangerous rather than less dangerous. But that is just my assessment. There are competing views from smarter people than me on Iran.

Senator BLUMENTHAL. Well, I thank you for that very well informed assessment and appreciate your being here. Thank you, General.

Thanks, Mr. Chairman.

Chairman INHOFE. Senator Hawley?

Senator HAWLEY. Thank you, Mr. Chairman.

General, thank you for being. Thank you for your service.

I want to take this opportunity at the outset to extend again my sincerest condolences to the families of those four American heroes and I think a British ally who have given their lives in Iraq since last Sunday. Thank you for all that you are doing.

Can I come back to this question of deterrence that the chairman and Senator Reed both raised with you? You mentioned that we are having some issue with establishing deterrence against asymmetric aggression. So can I just ask you about the strategy for deterring Iranian asymmetric aggression? What is your thinking on that to date and where are we with it strategically?

General MCKENZIE. So ultimately you want to convince the ultimate source of the aggression that the object they pursue is too costly to pursue. So when you think about that, you think about going to the source. So you really look to Iran. Iran needs to understand that we hold them ultimately responsible for SMG [sub-machine gun] attacks in Iraq. There is a relationship. The Shiite militia groups in Iraq and other proxies across the region—and there are other places across the region where they are active—they are not entities unto themselves. They all have some form of causal relationship with Iran, and so I think the best way to convince Iran

to cease giving orders to those activities is to convey to them it is not going to get them what they want and may, in fact, have significant consequences for them.

There is one element that the command and control between Iran and their Shiite militias groups in Iraq in particular but others as well—it is not perfect. It is not 1.0. It is not like our chain of command where I am pretty confident if I give an order, it is going to be followed. That is not the way it works, as you know, with those groups. There is a gap there between intent and execution. So it is not perfect control. But I think the key thing is if you want to stop attacks in the gray zone, you need to convince the ultimate person behind those attacks that it is not in their long-term interest to continue them.

Senator HAWLEY. Let me come back to this question about the pretty sizable conventional force buildup that we have had in CENTCOM since last May. If that has so far not succeeded in deterring these asymmetrical attacks, what in your judgment is it going to take? Do we need additional, in your judgment, conventional forces? I mean, how do we go about practically reaching this asymmetrical deterrence question?

General MCKENZIE. So you may ultimately live with a low level of proxy attacks in the region. You may not be able to completely do away with that. I would tell you certainly I would believe a redline for the United States is going to be the death of U.S. servicemembers or those of our partners and allies. So that is a redline.

As you know, there have been a variety of attacks over the last month where we had no casualties, small, low level attacks. Of course, the attack yesterday is a tragedy.

I believe that the way to actually deter those in the long term is to convince the source of those attacks that they are not going to reach their object through those attacks. Let me give you an example.

In Iraq, I think an Iranian goal is to eject the United States from Iraq as part of a larger view that they want us to leave the theater. Iraq is a good place to start because there are certain political constructs in place there that would aid them. So they were fairly quiet for a while as they pursued the political track.

Now, I only can talk about the military side of it, but I believe ultimately we are going to be able to reach a situation with the Government of Iraq where we remain and will not leave. That is my judgment, I could be wrong. Again, it is ultimately not a military decision. So I think when Iran realizes that—and I think maybe they have—then their attacks will begin to—they have sort of laid their attacks low. Now they will begin to pick up a little bit.

Senator HAWLEY. If we are going to have to live with some continuing asymmetrical threat—that is just part of what it means to be in the theater. Let us talk about the 14,000 troops or so. You said maybe it was closer to 10,000 who have been sent to theater since May. In your judgment, how long should we expect that troop buildup to need to last in theater? Is this something you think is going to need to continue on a relatively permanent basis? Give me your assessment about that.

General MCKENZIE. Senator, I think so long as we continue a maximum pressure campaign against Iran that places diplomatic and economic pressure against them, it is in our best interest to convince Iran that activities they carry out in the military domain—because that is really the only way they have to operate. They have no really effective way to operate against us diplomatically or economically. Therefore, there response almost by definition has to be in the military domain. What these forces do and what CENTCOM's objective is is to convince Iran it is not in their best interest to act out either directly or indirectly through proxies or by state actions against us to try to reset the balance of the maximum pressure campaign.

So that gets to your question of how long. My answer would be so long as the maximum pressure campaign continues.

Senator HAWLEY. Talk to us about the tradeoffs involved here from a National Defense Strategy perspective where we think about, again as the Chairman mentioned, about the shift to INDOPACOM as the pacing theater. We have this threat in CENTCOM. I mean, what is this going to mean? If we have to sustain the conventional troop buildup in CENTCOM, what will this mean for other NDS priorities?

General MCKENZIE. Sir, actually the conventional troop buildup in CENTCOM, to include the ships and airplanes, is a fairly small fraction of the total United States military. In my last job, I was the Director of the Joint Staff, and before that, I was the Director of Strategic Plans and Policy. So I am intimately familiar with the NDS, and I am a believer in the NDS. I recognize that in the long term, we need to be postured against China and we need to be postured against Russia. However, being a global power requires you to be able to do several things at once, and these are not binary choices.

Again, we have chosen to execute a maximum pressure campaign against Iran that was not in the NDS. That came along after the NDS was written. The NDS actually I believe is analytically broad enough to accommodate what we are doing against Iran while maintaining pressure against the real existential threats that we face.

Senator HAWLEY. Thank you, General.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Kaine?

Senator KAINE. Thank you, Mr. Chair.

Thanks, General McKenzie.

Just to follow up on a point with Senator Hawley, did I understand your point to be that Iran really does not believe it has a response to the maximum pressure campaign other than a military response? They do not really have diplomatic pressure levers, and they do not have an economic pressure level of any kind.

General MCKENZIE. Senator, from where I sit, that is my judgment.

Senator KAINE. So the Iranian activities that are military in nature are directly connected to the maximum pressure campaign. I would agree with you on that.

One of the activities that interested me was the joint naval drill by Iran, Russia, and China in the Gulf of Oman recently. Had Iran,

Russia, and China done joint exercises of that kind together in the past, as far as you know?

General MCKENZIE. They have done bilateral exercises. I think it is the first time they have done an exercise of that nature, although, Senator, it would tell you it is not an exercise in the way that we would do an exercise with NATO or we would do an exercise in the theater.

Senator KAINE. Not as full scale.

General MCKENZIE. Yes, sir. That would be an understatement actually.

Senator KAINE. But in CENTCOM and more generally, we should be very, very attentive to instances where our adversaries are doing anything in combination.

General MCKENZIE. Senator, you are absolutely right.

Senator KAINE. Many of us on the Committee are about the ability to handle the mining of the Straits of Hormuz. A couple years ago in the NDAA, we had an amendment that required the Navy to halt decommissioning of older *Avenger*-class minesweepers because we were worried about this. What is your view of our current capacity to handle the mining of the straits or to stop scuttling of ships that would block freedom of navigation through the straits?

General MCKENZIE. Senator, today we have four minesweepers in the AOR. The British, our coalition partners, have four minesweepers in the AOR, and I have four minesweeping helicopters. There are a variety of other things that we can employ as well.

Should the straits be mined, it would take us a while to clear that channel. It would depend on were we clearing them under conditions of drifting mines that were placed out there, which is the least attributable and probably the most likely way Iran might choose to act in that waterway, or would it be as a condition of a larger war, in which case we would not begin to do that clearing until we could guarantee the safety of these vessels, which are not really capable of defending themselves? So we have the capability to clear the strait. The time it would take would be dependent on the Iranian action that was the precursor for it.

Senator KAINE. I see.

One more question about Iran. I have not seen the answer to this. Is there an assessment that the coronavirus spike in Iran is driven by like a lot of back and forth travel between Iran and China, or what is the assessment about why Iran has become an epicenter, say, along with Italy outside of China?

General MCKENZIE. There is a lot of travel between Iran and China. But I would not go beyond that. I am just not enough of an expert to tell you.

Senator KAINE. Got it. Okay.

A question on Afghanistan. What is your current assessment of kind of in the mil-to-mil space the helpfulness of Pakistan and us doing the work we need to do in Afghanistan?

General MCKENZIE. Sure. So I maintain a close relationship with General Bajwa, the Chief of Army Staff. We talk frequently. I have been to visit him a couple of times in Pakistan. Their support has been very important in directing the Taliban to come to negotiations, and their continued support is going to be very important as we go through this difficult period of deciding is the Taliban actu-

ally serious about this and are they going to live up to their commitments.

Senator KAINE. Do you see that level of United States and Pakistan cooperation on the mil-to-mil side with the Afghanistan mission sort of getting better? It has always been good? I mean, how would you assess it kind of historically?

General MCKENZIE. So we have always had at U.S. Central Command—and I have about 10 years of experience in this organization. We have always seen a relationship with Pakistan as critical. Whether at the political level, there is turmoil, up and down, we always try to keep the military channel open. There are good reasons to do that, to prevent fratricide, to prevent miscalculation, and things like that. So we work very hard to keep that channel open.

Senator KAINE. Let me ask one last question, and it seems like it is kind of outside of your area of authority. It is about Venezuela, but it deals with a partner in CENTCOM, the UAE. We do a lot of work together with UAE. But the UAE together with India, Turkey, Russia have assisted the Maduro regime in avoiding United States sanctions. Have you ever interacted with UAE about their interaction with the Maduro regime in Venezuela?

General MCKENZIE. Senator, I have not.

Senator KAINE. All right. I appreciate it. Thank you.

Chairman INHOFE. Senator Ernst?

Senator ERNST. Thank you, Mr. Chair.

General McKenzie, thank you so much for your service to our Nation, and I echo the thoughts and prayers from the rest of my colleagues on the losses that we have had in the recent week. So please extend that to those families, if you would, sir.

I do take very seriously Congress' role in authorizing the use of military force. We have to ensure that our troops have the correct authorities to do the missions that we ask them to do. Now, there has been a lot of debate, not just within this Committee, but with a number of our colleagues outside of this Committee about repealing an AUMF and maybe putting a new one in place.

Can you tell us what the operational impact would be of repealing either the 2001 or 2002 AUMF [Authorized Use of Military Force]? And in your view, do you believe a new authorization for the use of military force is necessary to adequately cover down and conduct operations in your AO?

General MCKENZIE. Ma'am, many of those questions are above my level of competence. But I would tell you I believe I have the authorities I need now to execute operations in CENTCOM.

Senator ERNST. Utilizing the current AUMF——

General MCKENZIE. Yes, ma'am.

Senator ERNST.—you are able to operate.

General MCKENZIE. That is correct.

Senator ERNST. Well, I appreciate that. Again, the debate that we have has been pretty extensive on what we could do with or without that AUMF. So thank you for that feedback. That is a debate for us, but we do need that input to know whether you are able to adequately operate.

Moving on to a different topic with our special operators, The Washington Post had an article on the 5th of March that stated, quote, a new network of special operations forces will serve as the

backbone of a smaller United States military mission in Afghanistan. End quote. Of course, the purpose of our special operations network is to continue rooting out ISIS in that area and apply pressure to the Taliban if they fail to live up to their end of the peace agreement.

So what can you tell us about this new special operations network?

General MCKENZIE. Ma'am, I begin by saying I do not think it is actually new. I think it is the way we have done business for quite a while in Afghanistan. We have embedded CT forces that operate against that specific mission, have done it for many years, and it would be the way that we would go forward.

It is important to understand that for special operations forces to be most effective, they need to operate within a conventional force structure, and that provides the ecosystem that they use to move around. If they get in trouble, there is someone that can come to help them. So we always tend to think in that way, not only there but in other places across the theater as well. Special operations forces are vitally important to us, but they exist best when they are flourished within a network of U.S. conventional forces and then a host nation force as well.

Senator ERNST. Which, yes, was going to be my next question about the conventional forces. So I was just trying to understand within this article what was new about what they were being required to do.

General MCKENZIE. Ma'am, I often take up with The Washington Post articles to understand exactly what it is they are saying. In this case, I do not see anything particularly new.

Senator ERNST. Okay, outstanding.

Of course, then our special operators—will they need to maintain different strategic locations than where they are now, or will they largely remain in place?

General MCKENZIE. It will depend on if we go to the force level that I have been told to go to, 8,600. We have a good lay-down for that. Going below that level would require guidance to me and it would depend on the permissiveness of the environment. If you go lower and go to fewer bases, typically you are going to do it because the security situation is permissive. You do not have to defend yourself against Taliban attacks even as you are executing operations against ISIS and al Qaeda. So it would be strictly dependent on the overall permissiveness of the situation, and those days are still ahead of us. We have a variety of ways for looking at that, and we will look at that very closely as we go ahead.

Senator ERNST. Wonderful. A number of us did travel to Afghanistan prior to Thanksgiving, and we were able to visit some of the commando training with the Afghan forces. Do you feel that they are now getting to a point where they will be able to nest with great capability with our special operators on the ground?

General MCKENZIE. We have made great strides with the commando forces in Afghanistan. Your sense is exactly right.

Senator ERNST. Thank you very much, sir. I appreciate it.

Thank you, Mr. Chair.

Chairman INHOFE. Senator King?

Senator KING. Thank you, Mr. Chair.

I have realized that the questions I am about to embark upon are more policy and that your job is executing policy, but I just want to get some of your thoughts.

In your testimony on page 4, you said, since May 2019, Iran supported groups in Iraq, have attacked United States interests dozens of times, conducted scores of unmanned aerial system reconnaissance flights. They have attacked and seized foreign vessel in the Gulf. You go on to list all the things Iran is doing. I think you testified in response to Senator Hawley's question that they are not being deterred in the asymmetric area, in the proxy area. It has always been a proxy war. I mean, that is what it has always been.

Here is my problem. In 2017, we left the JCPOA [Joint Comprehensive Plan of Action], which they were abiding by. All intelligence unequivocally said that Iran was in compliance with all the provisions of the JCPOA. We put on the maximum pressure campaign, but as you have testified, it does not seem to be working because they are still doing what they were doing before.

The major difference today is—and I do not want to get into classified material, but Iran is significantly closer to break-out to a bomb than they were when we left the agreement in—I think it was 2018. I do not get it. It is exactly what many of us were worried before the JCPOA. You have got a malign Iran acting irresponsibly throughout the region getting close to a nuclear weapon. Help me out here. I do not really understand it. They are still doing it, and we probably will find out that the attack last night was a Shiite militia supported by Iran. I mean, I think that is probably where the evidence is going to head. I do not have any intelligence on that, but I am speculating. Give me some thoughts.

General MCKENZIE. Senator, so the maximum pressure campaign, in terms of its effect on the Iranian economy, there are other people——

Senator KING. Well, there is no question it has had an effect on the Iranian economy, but it has not had any effect on the activity we were hoping to deter. You have testified to that.

General MCKENZIE. I would argue actually, as a result of the buildup in Iranian activity over the course of the summer, the establishment of the International Maritime Security construct actually shifts—the Straits of Hormuz are no longer harassed. They are passing without any problem at all back and forth not because we are taking actions aimed directly at Iran, but rather because we and an international coalition are shining a spotlight when that activity occurs. So the activity is not occurring.

Senator KING. Interesting you mentioned the international coalition. I completely agree with you, which we blew up when we left the JCPOA. The international coalition that put that agreement in place did not agree with our decision. We took it unilaterally, but that is another discussion.

Again, do you believe that they are being deterred from their proxy attacks throughout the region?

General MCKENZIE. I believe that we are deterring them from state-on-state attacks.

Senator KING. But that is not the issue. It has not been a state-on-state situation. The attacks have always been through proxies.

General MCKENZIE. Sir, actually on January the 7th, we had a clear state-on-state attack.

Senator KING. After we killed Soleimani. Correct? That was the missile attack.

General MCKENZIE. That is the missile attack.

Senator KING. Yes, okay. But we killed Soleimani and then they responded. But historically the attacks have always been through proxies, and my point is they are still doing it. The only difference is they are also headed toward a nuclear weapon, and I do not get how that is in the best interest of the United States or the region.

Senator KING. Sir, I understand your argument. Many of those issues are not CENTCOM issues.

I would tell you that I come back to what I think my military task is. As the maximum pressure campaign continues, my military task is to prevent Iran from taking actions directly or indirectly that would challenge the activities that are ongoing.

Senator KING. I appreciate that, and you are doing an excellent job. It is a tragedy what happened yesterday and the last week to our troops. I think everyone here recognizes that.

Just in a few seconds left, is there a plan B if the Taliban does not abide by this agreement in Afghanistan? In other words, do they believe that we are going to leave come hell or high water, or do they still have some worry that we are going to stay there if they do not act right? Because as you testified, they are doing plenty of attacks right now. I worry that after 17, 18, 19 years, we are going to end up exactly where we were in 2001 with the Taliban in charge of the country and open season for terrorists.

General MCKENZIE. Senator, I had the opportunity to give advice on the plan that we are executing now, and my advice was to proceed with it. The principal reason that I supported it was the conditionality that is inherent in it. So we are going to have an opportunity to see what the Taliban do.

Senator KING. Do we know what the conditions are?

General MCKENZIE. Sir, on the military side, I know very clearly what the conditions——

Senator KING. Do we? Does the American public know?

General MCKENZIE. Sir, I am not sure that I would be the one to answer that.

Senator KING. Well, thank you for your testimony. I appreciate it. Again, I understand your job is to execute policy, but you are the nearest thing we have to a policymaker on this issue here this morning. I appreciate your candid answers to my questions.

General MCKENZIE. Thank you, sir.

Senator KING. Thank you.

Chairman INHOFE. Senator Cramer?

Senator CRAMER. Thank you, Mr. Chairman.

Thank you, General, for your service and for being here. I too express my condolences to you and to the families for the loss of your/our two soldiers and, of course, our friend from the United Kingdom.

General, this year, of course, the Air Force is asking us in their budget proposal to divest in critical ISR assets and a way to allow for more room to invest in new technologies and future ISR assets. I am very aware of the critical role that these ISR assets, some of

these legacy assets have played in CENTCOM, including some from my home State of North Dakota. I would like your take on, first of all, what the Department of Defense and/or the Air Force have told you to expect with regard to meeting your ISR obligations or requirements if this fiscal year 2021 budget is enacted.

General MCKENZIE. Thank you, sir. I actually possess most of the ISR assets the Department has, and I am cognizant of that. At the same time, as we were talking just a few minutes ago, as for the former Director of the Joint Staff and the J–5, I am very much aware of the need to prepare and turn to face the threat from China and the threat from Russia. Those are existential threats and we need to capitalize. We need to invest. We need to move in that direction.

For me, it actually comes down to a platform, and that platform is the MQ–9. That is the platform of choice in the CENTCOM AOR. It is a platform that can gather intelligence. It can strike. It can do all kinds of things. It is a jack of all trades. I would prefer that the Air Force not divest of that resource right now to the degree that they are doing. I acknowledge that the Air Force has some tough decisions to make as they take a look at the future of the China threat. The MQ–9 is not necessarily a platform that is useful in a dense air defense environment. I recognize that. But for right now and for the threats that to me are much closer actually than the longer-term threats of China that are deeper and graver, I favor retaining those assets as long as possible.

Senator CRAMER. I appreciate your answer, and I agree. The MQ–9 is really quite a remarkable asset. We are just trying to assess the risk and whether the risk is worth it and how we transition because I also agree that we need to get to another place.

With that in mind, I want to transition then in the discussion to the Space Force. Of course, we understand that many of the new technologies we are talking about would be space assets. I am just wondering, first of all, are you expecting to get some benefit in CENTCOM from space, ISR assets? I would expect the answer would be yes. But then the question becomes the gap between here and there and the risk in the middle of it. Are we preparing to adequately mitigate that risk?

General MCKENZIE. Senator, I use space assets every day, every hour in U.S. Central Command, and they provide unique capabilities. The total ISR picture is best built when it is complemented by air-breathing platforms as well. But for all of my life and particularly in U.S. Central Command, we cannot survive without space assets.

Senator CRAMER. I think you have answered my questions, including a couple that I have not asked yet. So I appreciate that and appreciate the time and am happy to yield back some time.

Chairman INHOFE. Senator Hirono?

Senator HIRONO. Thank you, Mr. Chairman.

General, as long as we are on the subject of ISR, are your general ISR requirements being met?

General MCKENZIE. Yes, they are.

Senator HIRONO. Are you able to leverage the ISR capacity of partners and allies in the region?

General MCKENZIE. I am able to leverage both partners in the region and partners and allies out of the region that deploy into the region.

Senator HIRONO. Regarding the peace agreement with the Taliban, you had testified on March 10th, not too long ago, before the House Armed Services Committee that the U.S. had not developed military plans for the full withdrawal. Based on what you testified today and also how you testified before that you did not have much confidence that the Taliban would honor its commitments, so at this rate are we ever going to meet the timeline of complete withdrawal by the end of the year?

General MCKENZIE. Senator, that will be a condition——

Senator HIRONO. By the end of the year or pretty much in any foreseeable future.

General MCKENZIE. I am confident we are going to go to 8,600 by the middle of the summer. I think a decision to go below that level is a political not a military decision. I will have an opportunity to give a recommendation on that and then will be directed what to do.

Senator HIRONO. There are not very many indications that the Taliban is going to stop pursuing its attacks. So as you say, they would have to decrease those attacks against Afghan forces substantially before we would go much below the 8,600 troops. It seems to me that we are going to be in Afghanistan a long, long time. We certainly cannot predict when we are going to be out of there, and this war has already cost us $2 trillion, killed more than 3,500 Americans and coalition troops. So this is a really troubling area of the world. The entire Middle East is.

So you would agree the stability, such as it can be, in the Middle East is a good thing for the United States.

General MCKENZIE. Senator, I would agree.

Senator HIRONO. Yes. Meanwhile, Senator King had pointed out that Iran is pursuing its nuclear ambitions and that they could very well have a nuclear weapon. Would Iran having a nuclear weapon not add to the instability of the region? Would it not encourage other countries in the region to also develop nuclear weapons that would end up being an even more unstable region than we currently have?

General MCKENZIE. Senator, my understanding of the object of our policy is to prevent Iran from developing a nuclear weapon.

Senator HIRONO. Well, they are going ahead with it from what we can see, and our departure from JCPOA has only hastened that situation. I think all around, the impact of our withdrawal from the JCPOA is certainly being manifested.

I have a question about China and Russia. As they continue to make significant investments in the area of your responsibility, so they are cultivating relationships and providing financial support. In particular, China has invested an estimated $200 billion—$200 billion—in the Middle East in the past 15 years, and both Russia and China continue to develop relationships with leaders in the region such as Syrian President Bashar Assad.

What risk does the United States face as Russia and China increase investments and influence in your area of responsibility,

knowing full well that Russia and China are our near-peer competitors?

General MCKENZIE. Senator, I think the greatest risk, although it is in the future, is from China, and you noted very correctly they are leading with their economics. Although they have established a significant military presence in Djibouti, their military presence throughout the rest of the theater is actually quite small. But I think we are seeing the leading edge of economic in-roads.

I think Russia is a little more complicated. They are not spending as much money. We see more Russian military deployments, but I think it is harder for them to sustain, with the exception of Syria.

Senator HIRONO. So what can we do? What are we doing? Because China really employs a whole-of-government approach to what they are doing not only in this area of the world, but clearly in the Indo-Pacific area. So what are we doing? Are we pursuing a whole-of-government approach to counter particularly China's activities in both regions?

General MCKENZIE. Senator, again, this is not an area of my particular expertise. But I believe we are looking at whole-of-government responses to China in the AOR and in the bridge really between CENTCOM and USAFRICOM, which is where their road actually takes them as well.

Senator HIRONO. That may sound reassuring, but you know, I really question whether or not we are pursuing the kind of whole-of-government approach that China is.

Thank you, Mr. Chairman.

Chairman INHOFE. Senator Peters?

Senator PETERS. Thank you, Mr. Chairman.

General, thank you for being here and your testimony here today. I would also like to join my colleagues in offering my sincere condolences to the loved ones and families of those members who we lost recently.

You have command in a very dangerous region. Over the past several months, our servicemembers and installations have suffered several rocket attacks. I am concerned about the serious miscommunication to the American people and, quite frankly, to the men in uniform and their families about the damage assessment following an attack in January that we had against our facilities. We were initially told that there were no injuries. Then we were told about a dozen soldiers suffered traumatic brain injuries. Then several dozen—the latest reports show that more than 100 troops have been diagnosed with a brain injury from this attack, many of whom were transferred out of country for treatment.

My question to you, sir, is how did this miscommunication occur? Was CENTCOM forced to give a rushed assessment, or did the White House make an announcement without having any facts?

General MCKENZIE. Senator, thank you for the question. I actually would like to talk about that.

I am solely and completely responsible for the first notification that there were no casualties. I am the officer who gave that report based on my assessment of what happened at Al-Asad. There was no pressure on me to give that report. That was we thought in the immediate hours after the attack because it was not evident to us

that there had been concussion injuries. Maybe if we were smarter, we would have picked up on that, but there were no kinetic injuries. No one was bleeding. No bones were broken. So it was out assessment and the assessment of my commanders on the ground. But I am the single person who passed that report. So I bear total responsibility for that with no one else.

So, therefore, after that, concussions presented themselves. TBI [traumatic brain injury] presented itself. As you know, Senator, that is not an injury like a broken arm or a broken leg that can be immediately diagnosed on the spot. These injuries come back and forth. Sometimes they manifest themselves over time. Sometimes it takes months to do that.

Two things I can tell you. I was never under any pressure from anyone at any time to shade this reporting. The Secretary of Defense never said anything to me about it. The Chairman never said anything to me about it. The President never said anything to me about it. We were driven solely by medical diagnosis on scene. So that is one point.

The second point is I am completely confident that every American service man or woman that was at Al-Asad got the very best medical treatment that really our system can provide, and so the numbers changed. So they did as people were presented, as people were evaluated, I took the trouble to actually dig into what is called the MACE–2, which is the clinical tool that is given on site to develop some of the initial indications of are you concussed and what is it. It is a pretty good tool. I wanted to make sure I understood it fully and the difficulty of administering it.

You are right. One hundred ten people were diagnosed. We evacuated 35 of them out of the theater to Landstuhl. A further 28 have come back to the United States. Some people have gone back to duty. We continue to take a look at that.

I would never minimize the significance of traumatic brain injury. I mean, just the description of the injury itself is concerning. We still have a lot to learn about it, but I believe that people that were injured and received injuries of that nature at Al-Asad have gotten very good medical treatment as a result of it.

Senator PETERS. Well, thank you for that answer, and you have answered some of my next question. The President said—I think he said, quote, they had headaches, a couple of other things, but I would say and I can report it is not very serious. End of quote. That is what we heard from the President that they had headaches.

The question to you. There are hundreds of thousands of U.S. military veterans that are suffering from TBI, as you are well aware. Do you agree that those injuries are serious and not merely headaches?

General MCKENZIE. I believe any injury to the brain is a serious injury.

Senator PETERS. Thank you.

General, in your written statement, you assert despite the death of Baghdadi in October, ISIS remains a threat in Syria and most of its activities focused on reestablishing networks, assassinating and intimidating local leaders and security forces and extending its influence in rural areas throughout Syria and Iraq. You state, simi-

lar to Afghanistan, most of the United States intelligence community predicts that without sustained pressure, ISIS has the potential to reconstitute itself in both Iraq and Syria.

The President seems to have a different view and says that basically—well, he takes credit for 100 percent defeat of ISIS and used that as justification to withdraw troops from Syria back in October of 2019.

My question to you as commander, because there is inconsistency in what we are hearing from the President and from you, how do you navigate between the Department of Defense and the IC's [Intelligence Community] very ominous assessment of the ISIS threat with the President's more optimistic assessment?

General MCKENZIE. I will tell you based on guidance that I have been given, which came from the Secretary of Defense, we have repositioned ourselves in eastern Syria, what we call the Eastern Syria Security Area, where we are carrying on operations against ISIS with our SDF [Syrian Democratic Forces] partners. Those operations are actually very effective, and I think as long as we maintain pressure on them, we will be at a place where it is going to be difficult for them to generate and deliver external attack plotting, external attack plotting meaning attacks against the United States or Europe. As long as we have the ability to do that—and we do have the ability to do that now both with the forces that are there and the positions that we are in—we are going to be able to keep that pressure on.

Senator PETERS. Thank you.

Chairman INHOFE. Senator Blackburn?

Senator BLACKBURN. Thank you, Mr. Chairman.

General, thank you for being here, and I join with others in expressing our condolences to those last night, the two Americans and the Brit that we lost in the attacks.

Just to be sure that we have got our notes right, it is not 14,000 troops that were added. It was 10,000?

General MCKENZIE. The number goes up and down based on—forces flow in and out of the theater all the time. I would say the number is closer to 10,000. But it is difficult to put a single figure on it. When a carrier comes in, 5,000 people come in. That is roughly correct. I would not want to give you a single number.

Senator BLACKBURN. All right. That is fair.

Let us talk a little bit about what you are doing to deter gray zone attacks. I think that we need to hear a little bit from you on that, if you will.

General MCKENZIE. Sure. As the maximum pressure campaign against Iran continues, they are unable to really respond economically or diplomatically, the two channels that we are using to place pressure on them. As they seek to find a way to respond, the only way that is left is the military component. The military component—they can do it one of two ways. They can do it directly, a state attack, and they have done that with the attack on Al-Asad, or they can do it indirectly, which the proxy attacks, gray zone attacks, as you indicate there.

There is evidence over the course of the summer and the fall that Iran wanted to pursue those gray zone activities in order to force us to reconsider the maximum pressure campaign, in order to

make us back off from that. Where we are right now is we believe as a result of the ballistic missile attack on Al-Asad, in the wake of that, rough state-on-state deterrence has been reestablished and that Iran does not seem to want to engage in another exchange of that nature because that would ultimately be a very bad outcome for them, and I think they recognize that.

However, they are still of the opinion that they can pursue their objectives through attacks that they would hope would either be unattributable or be below the level where we will respond. That poses a very grave danger for them because I am not certain they do have an exact understanding of what our redlines are and where we are not going to be pushed. So we see that in Iraq. We also see it in other places in the theater. But we see it principally in Iraq because Iran is pursuing a dream of American ejection from the theater, and they would like for that to begin in Iraq. That is where we see it most readily.

Senator BLACKBURN. Then let me ask you this. When we are talking about Iran, do you think they are more bold or less bold than they were a year ago?

General MCKENZIE. So they were very bold in the late spring/early summer of 2019, and they were bold because they have never doubted our capability, but they doubt our will. So additionally in the spring and summer of 2019, the theater had been significantly drawn down in terms of capability. So they could observe that CENTCOM did not possess the forces that it had in the past. So a confluence of a judgment about our will and a judgment about our capability led them, to answer your question, to be pretty bold.

I believe they are less bold now probably most significantly impacted by the death of Qassem Soleimani.

Senator BLACKBURN. So then as we talk about their presence in Iraq and their goal of ejecting us from that theater, then outside of adding personnel, which I think it is fair to say you do not have the personnel to add, then what can we do in Iraq that is going to end up enhancing our force protection? How do we do that so that we keep Iran in a diminishing posture instead of a bolder posture?

General MCKENZIE. First of all, you look to the source. If the source is Iran, to reestablish deterrence, you want to establish the idea in the mind of the opponent that the object they seek will be more painful than its attainment. So it is more painful to get there than it is to actually hold it, and so you do that by being very clear to them about things that we are going to tolerate and things that we are going to not tolerate. So that is one path.

The other path at the same time——

Senator BLACKBURN. So in other words, they have to see our will, or as my kids would say, put the hurt on them.

General MCKENZIE. That is a very good way to state it, ma'am.

Senator BLACKBURN. Yes, okay.

General MCKENZIE. So meanwhile in Iraq, we are in Iraq at the invitation of the Iraqi Government. The Iraqi Government has responsibilities to provide protection for us. Actually practically the best way to get at this problem is to continue to work with our Iraqi hosts and partners to get after the SMG threat because it threatens them as well.

Senator BLACKBURN. I yield back.

Chairman INHOFE. General McKenzie, excellent testimony. We appreciate it very much. As we stated at the beginning of this hearing, we are going to go now down to SVC–217 for a closed session. We will see who shows up.

We are adjourned.

[Whereupon, at 10:20 a.m., the Committee adjourned.]

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JAMES M. INHOFE

LEBANON

1. Senator INHOFE. General McKenzie, what is your assessment of Hezbollah's role in the new Lebanese Government?

General MCKENZIE. Hezbollah possesses greater influence in the new government with a majority representation in the ruling coalition controlling/nominating the heads of the three major branches of government. Despite wielding this enhanced influence, Hezbollah almost certainly does not want to face public scrutiny for failed legislation or policies like the ongoing economic crisis.

2. Senator INHOFE. General McKenzie, does Hezbollah have more or less influence than in previous governments?

General MCKENZIE. Hezbollah has more influence in the new government and parliament compared to the previous government.

3. Senator INHOFE. General McKenzie, what is the trend for the opinion of the Lebanese Armed Forces (LAF) among the Lebanese population?

General MCKENZIE. The Lebanese Armed Forces (LAF) are the most respected government entity inside Lebanon, viewed as an apolitical organization. The LAF are consistently viewed as the sole national defense force. While Hezbollah is a significant actor in the security spectrum, it is not considered an alternative to the LAF as a national defense force.

4. Senator INHOFE. General McKenzie, is their credibility and favorability as an institution increasing or decreasing overall?

General MCKENZIE. The Lebanese Armed Forces' (LAF) institutional credibility is unchanged in the wake of recent anti-government protests, which favorably showcased the LAF's non-partisan, apolitical standing.

5. Senator INHOFE. General McKenzie, is their credibility and favorability as an institution increasing or decreasing vis-á-vis Hezbollah?

General MCKENZIE. The Lebanese population does not typically view Hezbollah and the Lebanese Armed Forces (LAF) as competitors. Hezbollah is widely recognized as a sectarian political and militia entity, while the LAF is seen as a national, apolitical institution. Lebanese views on Hezbollah or the LAF almost certainly vary depending on religious sect and political alignment.

6. Senator INHOFE. General McKenzie, what is your assessment of the performance of the Lebanese Armed Forces during the ongoing series of protests against the government?

General MCKENZIE. The Lebanese Armed Forces (LAF) forms the backbone of United States influence in Lebanon and hedges against Iranian, Russian, and all other malevolent interests in the country. The LAF performed well balancing the safety and security of the protesters as well as their demands to illustrate professional and neutral behavior, permitting democratic freedom of expression.

7. Senator INHOFE. General McKenzie, what is your assessment of the Lebanese Armed Forces in light of the new Lebanese Government?

General MCKENZIE. The Lebanese Armed Forces (LAF) views itself as apolitical but prioritizes protecting the Lebanese people against all threats. In December 2019, LAF Chief of Defense (CHOO) Aoun openly opposed the government's lack of credible response to the anti-government protests. The CHOO referred to the protests as a "revolution of the hungry."

8. Senator INHOFE. General McKenzie, what is your assessment of the LAF and their ability to maintain end use monitoring of United States assistance?

General MCKENZIE. The Lebanese Armed Forces (LAF) take end use monitoring responsibilities very seriously and have maintained 100 percent accountability annually. Of the 4,529 items requiring annual inventory in Lebanon, only two were not physically observed in the past fiscal year. However, these two items were satisfactorily accounted for through accurate and up to date hand receipts while deployed at the time of inventory. Additionally, the LAF passed their last Compliance Assistance Visit with a "satisfactory" rating, which is the highest possible rating. The Office of Defense Cooperation Beirut and the LAF have an excellent relationship, with unhindered access for end use monitoring at any time.

EGYPT AND SINAI

9. Senator INHOFE. General McKenzie, what is your assessment of the Egyptian Government's performance against the Islamic State of Iraq and Syria (ISIS) and other terrorist organizations in the Sinai?

General MCKENZIE. The Egyptian Armed Forces have contained most of the ISIS–Sinai and other Violent Extreme Organizations violence in the northeastern Sinai Peninsula. Cairo has sustained counterterrorism operations despite consistent casualties, while beginning to implement limited reforms to address societal and economic grievances.

10. Senator INHOFE. General McKenzie, what is your assessment of the Multinational Force and Observers (MFO) and its role in supervising the implementation of the security provisions of the Egyptian-Israeli Treaty of Peace and working to prevent any violation of its terms?

General MCKENZIE. For the past 40 years, the Multinational Force and Observers (MFO) is the only dedicated organization to monitor the Egypt-Israel treaty. Aside from treaty supervision, MFO's presence serves to reinforce the commitment of the international community in maintaining peace. The MFO also allows Egypt and Israel to discuss shared diplomatic, economic, and security interests in good faith.

11. Senator INHOFE. General McKenzie, what is your assessment of the value of MFO as a platform for communications between Egypt and Israel in the event that tensions increase between the two countries?

General MCKENZIE. I defer to Ambassador Beecroft, Multinational Force and Observers' (MFO) Director General, on MFO's role in facilitating diplomatic communications between Egypt and Israel. I do believe that MFO symbolizes the international community's support for the peace treaty between Egypt and Israel. Task Force Sinai, the United States contribution to MFO, likewise sends a strong signal of the nation's support to Egypt and Israel.

SYRIA

12. Senator INHOFE. General McKenzie, what is your assessment of the situation in Idlib?

General MCKENZIE. The cease fire in Idlib continues to hold but remains fragile. There is evidence that Syria, Russia, and Turkey continue to posture military forces and deploy additional troops to the area, signaling a potential resumption of hostilities in the future. We remain concerned about the large number of people who have been displaced in Northwest Syria due to the fighting and significant humanitarian need.

13. Senator INHOFE. General McKenzie, do you see any evidence that Idlib could be a friction point between Russia and Turkey?

General MCKENZIE. Russia likely seeks to avoid actions that would intentionally start a conflict with Turkey, preferring to engage diplomatically with Ankara and avoid a direct confrontation with NATO. Russia almost certainly will look to leverage it's diplomatic, economic, and security relationship with Turkey in order to maintain the Asad regime's control over Syrian territory.

YEMEN

14. Senator INHOFE. General McKenzie, what is your assessment of the Houthi missile and unmanned aerial vehicle (UAV) threat to United States personnel, citizens, and partners in the region?

General MCKENZIE. Houthi missiles and Unmanned Aerial Vehicles pose a significant threat to United States interests, citizens, and partners particularly as seen

by the targeting of Saudi Arabia and United Arab Emirates (UAE) civilian critical infrastructure to include airports.

15. Senator INHOFE. General McKenzie, what is your observation of the impact of Houthi missile and UAV threats to the utilization of Air and Missile Defense assets by partners in the region such as Saudi Arabia and United Arab Emirates (UAE)?
General MCKENZIE. [Deleted.]

16. Senator INHOFE. If the United States withdrew all support for the Saudi-led coalition, would the Houthi threat to United States personnel, citizens, and partners increase or decrease?
General MCKENZIE. [Deleted.]

17. Senator INHOFE. Is it possible for the Houthi missile and UAV systems to become a threat to Israel?
General MCKENZIE. [Deleted.]

QUESTIONS SUBMITTED BY SENATOR TOM COTTON

PRISONER RELEASE AND THE TALIBAN

18. Senator COTTON. General McKenzie, why would we want the Government of the Islamic Republic of Afghanistan (GIROA) to release 5,000 of 15,000 Taliban prisoners before we have a complete, confirmed peace deal—especially given the lack of reduction in violence since the agreement was announced?
General MCKENZIE. The United States has no direct role in the release or reintegration of Taliban fighters. While this is an Afghan-led effort we support the peace process and confidence building measures necessary to bring about a conclusion to this conflict.

19. Senator COTTON. General McKenzie, what details can you provide about each of these prisoners. I understand that the response to this question may be classified.
General MCKENZIE. The United States has no direct role in the release or reintegration of Taliban fighters. While this is an Afghan-led effort we support the peace process and confidence building measures necessary to bring about a conclusion to this conflict.

20. Senator COTTON. General McKenzie, what arrangements do we have to ensure that prisoners do not support al-Qaeda (AQ) or ISIS after they are released?
General MCKENZIE. The United States has no direct role in the release or reintegration of Taliban fighters. While this is an Afghan-led effort we support the peace process and confidence building measures necessary to bring about a conclusion to this conflict.

21. Senator COTTON. General McKenzie, would prisoners be monitored after release, and how?
General MCKENZIE. The United States has no direct role in the release or reintegration of Taliban fighters. While this is an Afghan-led effort we support the peace process and confidence building measures necessary to bring about a conclusion to this conflict.

QUESTIONS SUBMITTED BY SENATOR THOM TILLIS

IRAN-DETERRENCE STRATEGIES

22. Senator TILLIS. General McKenzie, you stated, "The long-term challenges the United States faces in the CENTCOM (United States Central Command) AOR (area of responsibility) are the destabilizing and escalatory actions of the Iranian regime." Particularly, "its hegemonic ambitions, misbehavior, and threat to the United States and its regional partners." What is a more effective strategy or response to Iran's defiance of our current economic and diplomatic strategies to CENTCOM's "maximum pressure campaign?"
General MCKENZIE. The Maximum Pressure Campaign is a whole of Government effort, led by the State Department at the direction of the President and focused on bringing diplomatic and economic pressure to bear on the Iranian regime; it is not a United States Central Command (USCENTCOM) campaign. USCENTCOM's

efforts are concentrated on deterring Iran from responding militarily to the diplomatic and economic pressure against us or others in the region, and we will maintain our support to our regional partners and allies.

23. Senator TILLIS. General McKenzie, you stated, "Our presence sends a clear and unambiguous message signal of our capabilities and most importantly, the will to defend partners and U.S. national interests. This exemplifies the concept of deterrence. Deterrence is diplomatic and political construct obtained from the effect demonstrated capabilities have on the mind of a potential opponent." What have we learned with respect to the "mind of our opponents" in the CENTCOM AOR, such that we can claim wins in CENTCOM's current deterrence philosophy?

General MCKENZIE. I believe our resolve to directly respond to strikes by Iranian proxies against United States personnel and bases and strike against former IRGC–QF Commander Soleimani demonstrated to Iran our willingness to act in self-defense to defend our interests. Our ability to deter Tehran is dynamic and I remain concerned further force posture reductions in the region will only embolden the regime to take more aggressive actions in the region.

24. Senator TILLIS. General McKenzie, exactly how clear and unambiguous of a signal are we sending to our adversaries in the CENTCOM AOR?

General MCKENZIE. Very clear. United States Central Command, as one element of the broader whole of United States Government approach to preserve and enhance the credibility and influence of the United States in the region, continues to send a clear message to our partners, competitors, and adversaries through consistent synchronization of information and actions including lethal and non-lethal operations across the U.S. Government. Through focused and integrated efforts to understand and engage key audiences, we are able to create, strengthen, and preserve conditions favorable for the advancement of United States Government interests, policies, plans, and strategic objectives.

REDUCTION OF U.S. FORCES & REGIONAL STABILITY

25. Senator TILLIS. General McKenzie, you stated, "Reduction of United States Forces in the AOR combined with a perception of United States disinterest in the Middle East fueled thinking in Iran in the spring of 2019 that the United States was no longer committed to defensing our national interests in the region. That misconception led directly to the cycle of escalation that created in January 2020. How would shifting the balance of power in the CENTCOM AOR, by reducing United States Forces in Afghanistan, impact stability in the region?

General MCKENZIE. I do not see reducing United States Forces in Afghanistan as negatively affecting stability in the region. First, we have been ordered to conduct an orderly withdrawal. Second, as we reduce our forces in Afghanistan we maintain the Counter Terrorism Platform which includes the whole "ecosystem" of enabling capabilities and factors in a capable Afghan National Security Forces necessary to continue our mission.

WEAPONIZATION OF INTERNALLY DISPLACED PERSONS (IDP) AND REFUGEES

26. Senator TILLIS. General McKenzie, if given the proper resources, what initiative or type of task force would you stand up to develop a comprehensive diplomatic and international effort to mitigate or respond to the ISIS detainee and IDP hostage situation?

General MCKENZIE. One of my top priorities is combatting the weaponization of internally displaced and refugee populations. The greatest concern in terms of potential radicalization is the population being held in the foreign annex of the Al Hol Internally Displaced Person (IDP) camp. The United States military does not currently have authority to access Al Hol or the foreign annex. Legally, the Department of Defense (DoD) can only provide security to facilitate a stable environment in support of UN and international non-governmental organizations (NGOs) efforts to support Internally Displaced Persons (IDP) needs within Syria. USAID is the lead for this mission with United States Central Command playing a supporting role.

QUESTIONS SUBMITTED BY SENATOR RICHARD BLUMENTHAL

27. Senator BLUMENTHAL. General McKenzie, The Trump Administration insisted that the world was safer in the aftermath of the strike on Qassem Soleimani. Reports from earlier this week indicated that the military had begun to drawdown troops the additional troops deployed to the Middle East just after the strike—indi-

cating confidence that immediate tension in the region declined. But yesterday, 2 American servicemembers, and 1 servicemember from a coalition partner nation, were killed during a rocket attack in northern Iraq that also wounded 12. I understand that investigations are ongoing, but it seems likely that an Iranian-backed Shiite milita group is responsible for these attacks. This kind of symbolic retribution from Iranian proxy forces is exactly what many feared. I understand that the Pentagon was in the process of bringing air defense systems and ballistic missile defense systems into Iraq to increase force protection measures against potential attacks by Iran and its proxy forces. Were these force protection measures too late?

General MCKENZIE. In January, an Operational Needs Statement was submitted for additional Counter Rocket Artillery and Mortar systems. The lack of immediate availability in the Army inventory required a prioritization of the assets already in theater, resulting in a number of systems that were remissioned from Afghanistan to Iraq. Some of these systems are still in transit while others have reached initial operational capability.

28. Senator BLUMENTHAL. General McKenzie, what additional force protection measures are you considering given the most recent attack?

General MCKENZIE. [Deleted.]

29. Senator BLUMENTHAL. General McKenzie, what other advanced planning is ongoing to guard against additional strikes?

General MCKENZIE. Over the last few months the U.S. has deployed additional capability into theater while realigning positioning to protect forces from a range oflikely threats. Concurrently we are working with our partners and allies to integrate existing assets across the peninsula to provide a more comprehensive defense of the region.

30. Senator BLUMENTHAL. General McKenzie, we can all understand why additional United States troops were necessary due to increased tensions after the strike on Soleimani. But what threat assessment led to the decision to drawdown these additional troops?

General MCKENZIE. There was no threat assessment that led to the drawdown nor was there any additional assessment requiring us to maintain greater force presence, it was a reduction that coincided with the original intent to reduce U.S troop presence.

31. Senator BLUMENTHAL. General McKenzie, in the aftermath of the Soleimani strike, there was a symbolic vote within the Iraqi parliament to expel United States troops.

General McKenzie, how did our military relationship with the Iraqis change in the aftermath of this strike?

General MCKENZIE. The Coalition's presence in Iraq is based on formal, diplomatic requests and bilateral security agreements with Iraq's Minister of Foreign Affairs. The Council of Representatives vote has not been implemented, and further legislation would be required to remove Coalition forces.

[Deleted.]

32. Senator BLUMENTHAL. General McKenzie, where do we stand in terms of our authority to keep American troops stationed in Iraq?

General MCKENZIE. The authority for the American troop presence in Iraq remains unchanged. United States Forces are in Iraq at the invitation of the Government of Iraq, for the purpose of defending the United States, its coalition partners, and Iraq, from the continuing threat posed by ISIS. We remain focused on ensuring the lasting defeat of ISIS as the Iraqi Security Forces (ISP) regenerate the capacity to defeat the threat posed by ISIS. United States Forces continue to conduct operations pursuant to the 2001 Authorization for the Use of Military Force (AUMF), the 2002 AUMF, and the President's authority under Article II of the Constitution.

TRAUMATIC BRAIN INJURY

33. Senator BLUMENTHAL. General McKenzie, could you provide an update for this Committee on the status of the servicemembers suffering from Traumatic Brain Injury as a result of these attacks?

General MCKENZIE. First, I would like to start out by saying that I am solely and completely responsible for the first notification that there were no casualties. I am the officer who gave that report based on my assessment of what happened at Al Asad. There was no pressure on me to give that report. That was what we thought

in the immediate hours after the attack because it was not evident to us that there had been concussion injuries. You know maybe if we were smarter we would have picked up on that but there were not kinetic injuries, no one was bleeding, no bones were broken. So it was our assessment and the assessment of my commanders on the ground but I am the single person who passed that report. So I bear total responsibility for that with no one else. Second, to answer your question there were 110 people diagnosed. We evacuated 35 of them out of the theater to Landstuhl. A further 28 have come back to the United States and 75 servicemembers have returned to full duties within the U.S. Central Command Area of Responsibility. These servicemembers will be followed through the normal Periodic Health Assessment and Deployment Health Assessment processes. The medical status of the 28 servicemembers evacuated to the U.S. will be followed by their respective service headquarters.

34. Senator BLUMENTHAL. General McKenzie, what additional resources do you need for the servicemembers under your command in order to properly detect and treat traumatic brain injury?

General MCKENZIE. Over the last several years the Department of Defense has made significant and needed strides in detecting and treating this often unseen injury. We need to continue ongoing research into a number of areas. First, we need improved capabilities to provide both the initial diagnosis and the ability to objectively return someone to duty. Once injured, diagnosis is currently based on the best available medical evidence, but still requires significant provider judgement. An objective test (laboratory test, handheld device, some other solution) would allow commanders to know who in the force requires rest or advanced treatment and who is ready to back to the fight. Improved capabilities to provide our personnel equipment and bunkers, which help, protect from incurring the injury.

AFGHANISTAN & SO-CALLED "PEACE AGREEMENT"

35. Senator BLUMENTHAL. General McKenzie, reports indicate that nationwide violence—including deadly assaults against Afghan forces—have actually increased since the so-called "Peace Agreement" between the United States and the Taliban. According to Afghan officials, the Taliban carried out at least 76 attacks across 24 Afghan provinces in the 4 days after the agreement was signed—and the US has conducted airstrikes in response. But the drawdown of US troops is already underway. Intra-Afghan negotiations between the Afghan Government and the Taliban were supposed to begin this Tuesday, March 10—but the prisoner exchange, renewed violence, and political disputes are proving difficult obstacles to these talks. And the agreement to remove all troops from Afghanistan within 14 months was brokered in exchange for a largely undisclosed and ill-defined set of counterterrorism actions. Given the uptick in Taliban violence in the aftermath of the peace agreement, are you concerned about force protection for our troops withdrawing from Afghanistan?

General MCKENZIE. Yes, I am concerned; therefore, the United States Forces-Afghanistan (USFOR–A) and Resolute Support (RS) started providing layered force protection to US and NATO bases and personnel in Afghanistan using a combination of manned and unmanned sensors, ground-based fire support systems, perimeter and ground defense area (GDA) patrols, and manned and unmanned combat air patrols. In addition, local-national partnered forces from the Afghan National Defense and Security Forces (ANDSF) provide an outer layer of security to these facilities.

36. Senator BLUMENTHAL. General McKenzie, what force protection measures are in place to ensure safety during withdrawal?

General MCKENZIE. [Deleted.]

37. Senator BLUMENTHAL. General McKenzie, administration officials are describing this withdrawal as "conditions-based." What conditions would halt, reverse, or alter the 14-month timeline for withdrawal?

General MCKENZIE. The conditions that would halt, reverse, or alter the 14-month timeline would include any attacks from the Taliban against United States or Coalition forces; failure of the Taliban to meet the conditions agreed to under the United States-Taliban Peace Deal; or increases in Taliban violence directed against the Islamic Republic of Afghanistan which are seen as destabilizing to Afghan governance. Conditions on the ground would include a continued increased level of violence against Coalition and Afghan National Defense and Security Forces (ANDSF); lack of lntra-Afghan negotiations; Government of Afghanistan continued instability or a

combination of these. It should also be noted that while the Commander on the ground and I will certainly make a recommendation, it is ultimately a political decision.

38. Senator BLUMENTHAL. General McKenzie, what metrics are you using to measure Taliban compliance with the agreement?

General MCKENZIE. There are 14 key points laid out in the United States-Taliban Peace Deal, and these points will continually be assessed for compliance.

39. Senator BLUMENTHAL. General McKenzie, General Milley has said that he does not see the renewed violence as a "deal breaker." What would be a "deal breaker" for you?

General MCKENZIE. Increased Taliban attacks against the Afghan National Defense and Security Forces (ANDSF) are one of the conditions that would halt, reverse, or alter the 14-month timeline for withdrawal. The Taliban are trying to enter Intra-Afghan negotiations from a position of strength in order to push for maximum concessions from the Government of the Islamic Republic of Afghanistan during those talks.

Examples of a "deal breaker" would include any attacks from the Taliban against United States or Coalition forces; failure of the Taliban to meet the conditions agreed to under the United States-Taliban Peace Deal; or increases in Taliban violence directed against the Islamic Republic of Afghanistan which are seen as destabilizing to Afghan governance. Conditions on the ground would include a continued increased level of violence against Coalition and Afghan National Defense and Security Forces (ANDSF); lack of lntra-Afghan negotiations; Government of

Afghanistan continued instability or a combination of these. It should also be noted that while the Commander on the ground and I will certainly make a recommendation, it is ultimately a political decision.

40. Senator BLUMENTHAL. General McKenzie, the United States-Taliban Agreement stipulated that intra-Afghan talks would begin this Tuesday, March 10. But talks are not scheduled. Will the United States continue to withdraw troops even if intra-Afghan negotiations do not occur?

General MCKENZIE. Yes. General Miller has determined that he can complete the assigned Operation Freedom's Sentinel and Resolute Support Mission with 8,600 U.S. personnel. NATO and Coalition forces are also drawing down by roughly 25 percent. The current troop level reduction in Afghanistan does not affect our ability to maintain pressure on the Taliban to uphold the Peace Agreement.

41. Senator BLUMENTHAL. General McKenzie, how is the political uncertainty within Afghanistan surrounding the presidential election results impacting the security and stability within Afghanistan?

General MCKENZIE. The presidential uncertainty does not in itself represent a serious threat to Afghan security. President Ghani's political opposition has not demonstrated willingness to challenge his victory through violence or large-scale demonstrations, and despite an ethnic component to the political impasse, Afghan security forces remain unified and loyal to Kabul. There are no indications of near-term Afghan National Defense and Security Forces ethno-political fracture that the Taliban or other armed factions might exploit. Heightened political tensions in certain parts of the country have not demonstrably altered the years-long trends of violence and insecurity.

42. Senator BLUMENTHAL. General McKenzie, public discussion of the prisoner exchange articulated in the peace agreement has been extremely conflicted, and President Ghani has flat-out rejected this exchange. Can you clarify the terms of this prisoner swap, and whether the United States military will play any role to facilitate the exchange?

General MCKENZIE. The United States has no direct role in the release or reintegration of Taliban fighters. While this is an Afghan-led effort we support the peace process and confidence building measures necessary to bring about a conclusion to this conflict.

43. Senator BLUMENTHAL. General McKenzie, I read the classified annexes that accompany the peace agreement. Frankly, I was stunned by the lack of detail. The deal seems intentionally vague in terms of metrics for compliance and evaluating success. But I was even more shocked to learn that while these annexes are classified, and unavailable to the American people, the Taliban have read the secret an-

nexes. Why does the Taliban have access to the annexes that accompany the peace deal, but the American people do not?

General MCKENZIE. United States Central Command was not involved in the United States-Taliban Peace Deal negotiations, and therefore I recommend this question is referred to the State Department.

44. Senator BLUMENTHAL. General McKenzie, will you work to provide more information to the American people about the terms and conditions of this agreement?

General MCKENZIE. The State Department led the United States-Taliban Peace Deal negotiations, and therefore I recommend this question is referred to the State Department.

45. Senator BLUMENTHAL. General McKenzie, I understand that the Trump Administration has decided that the status of women and minorities is "up to the Afghan people to decide." This seems like an abrupt reversal of almost two decades of United States policy, and approximately $137 billion invested in Afghanistan reconstruction efforts.

General MCKENZIE. The State Department led the United States-Taliban Peace Deal negotiations, and therefore I recommend this question is referred to the State Department.

46. Senator BLUMENTHAL. General McKenzie, if women and minorities lose the rights they have gained—particularly with regard to educating women and girls in Afghanistan—how will this impact the security and stability of Afghanistan?

General MCKENZIE. United States and EU funding for Government of the Islamic Republic of Afghanistan (GIRoA) are based on the recognition of the rights of minorities, women, and girls. If GIRoA does not live up to its agreements, there is a risk of losing foreign assistance and Afghan Security Force Funding, which could negatively affect Afghan security and stability.

47. Senator BLUMENTHAL. General McKenzie, do you think that future funding for Afghanistan reconstruction efforts should be conditioned on commitments to protect the status of women and girls in Afghanistan?

General MCKENZIE. Reconstruction is outside my role as the United States Central Command Commander, and therefore I recommend this question is referred to the State Department and the United States Agency for International Development.

48. Senator BLUMENTHAL. General McKenzie, given that the United States is withdrawing troops from Afghanistan, will our diplomats and other civilian employees need additional protection?

General MCKENZIE. While specific questions on embassy security should be referred to the State Department, United States Central Command is committed in supporting security request made by the State Department to ensure the safety of our diplomats and civilian employees as the withdrawal occurs.

49. Senator BLUMENTHAL. General McKenzie, in my questions for the record at your nomination hearing, I asked you "how would a precipitous withdrawal of United States Forces from Afghanistan lead to attacks on the United States Homeland." You replied: "Such a withdrawal of forces would be inherently destabilizing to Afghanistan and the region... Any withdrawal should be conditions-based and enable lasting effects to protect the Homeland and our vital national interests." Do you believe that the current withdrawal of forces is precipitous?

General MCKENZIE. No. I do not believe that the current withdrawal of forces is precipitous. First, we have not been given guidance to execute a precipitous withdrawal; we have been ordered to conduct an orderly withdrawal. Second, as we reduce our forces in Afghanistan we maintain the forces necessary to pressure the Taliban should they decide not to abide by the terms of the U.S–Taliban Peace Deal. Third, we have been closely coordinating with both our Coalition partners and the Government of the Islamic Republic of Afghanistan during this drawdown so that neither Afghanistan nor the region is destabilized.

50. Senator BLUMENTHAL. General McKenzie, is the current withdrawal "conditions-based," with clearly defined conditions?

General MCKENZIE. Yes, the current withdrawal is "condition-based." The standard is that Afghanistan never again becomes a safe haven for terrorist to attack the United States, period and if any point in time it's completely conditions based we stop.

51. Senator BLUMENTHAL. General McKenzie, does the current agreement with the Taliban, and plans for withdrawal, protect our vital national interests and minimize risk of attack on our Homeland?

General MCKENZIE. Yes, the conditions of the withdrawal are that no terrorist organization can use Afghanistan to conduct attacks on the United States nor can the country of Afghanistan provide refuge to such organizations or people. As long as the Taliban meet the conditions outlined in the United States-Taliban Peace Deal, United States vital national interests will be protected.

SYRIA WITHDRAWAL

52. Senator BLUMENTHAL. General McKenzie, I was ashamed by the abrupt withdrawal of almost all 1,000 United States troops from Syria in October—even if the President later partially reversed course to keep some troops in Syria to secure oil fields to ensure the Kurds could continue earning oil revenue. But this abrupt withdrawal, and halfway reversal, posed real security risks to Kurdish troops and civilians. To what extent was the Islamic State able to exploit the vulnerabilities during this chaotic withdrawal period?

General MCKENZIE. There was no noticeable increase in ISIS activity during the United States withdrawal period, likely due to continued United States and Coalition support to the Syrian Democratic Forces (SDF) and the SDF's focus on the D–ISIS mission.

53. Senator BLUMENTHAL. General McKenzie, how has our military partnership with the Kurds been compromised since this withdrawal?

General MCKENZIE. The relationship between the Syrian Democratic Forces (SDF) and United States Forces remains strong, especially in executing the D-ISIS fight despite the challenges by carrying out the partial withdrawal.

54. Senator BLUMENTHAL. General McKenzie, what is the United States' long-term strategy in Syria, and how does the current mission to protect oil revenue for the Kurds contributes to this overarching goal?

General MCKENZIE. The United States is seeking to support our Syrian Democratic Forces (SDF), in becoming self-sustaining in the counter ISIS fight as we pursue a political solution to the Syria conflict.

55. Senator BLUMENTHAL. General McKenzie, I understand the Kurds are seeking to negotiate with the Assad regime via Moscow. Are you concerned that the United States has relinquished our diplomatic influence in shaping a political settlement in Syria?

General MCKENZIE. Leaving diplomatic efforts to the State Department, United States Central Command (USCENTCOM) continues to coordinate very closely with Ambassador Jeffrey on how best to militarily support United States objectives in Syria broadly and in the Eastern Syria Security Area more specifically.

56. Senator BLUMENTHAL. General McKenzie, in northeastern Syria, there are prisons and detention camps with thousands of men, women, and children. While these camps house dangerous terrorists, they also house many innocent women and children, some of whom were living—against their will—under the ISIS reign of terror. Humanitarian groups working in Syria report that 94 percent of almost 70,000 detainees (68,744 people) being held at the Al-Hol detention camp are women and children. How many of the detainees do you believe represent a security threat?

General MCKENZIE. Al-Hol is an IDP camp managed by an NGO called Blumont through a contract with USAID. Al-Hol and other IDP camps are designed to house and care for IDPs; they are not detention centers. Al-Hol is separated into several annexes, one of which houses a more radicalized population. It is our belief that the greatest security threat emanates from the foreign annex in Al-Hol camp which holds approximately 9,600 radicalized persons.

57. Senator BLUMENTHAL. General McKenzie, is the US military working to identify non-combatants, particularly children?

General MCKENZIE. The United States military is not working to identify non-combatants in the prisons, as these individuals are being held by the Syrian Democratic Forces and are not under United States control. I recognize the threats posed in both of these situations which is why we have been working closely with Department of State and foreign governments to get detainees and refugees repatriated. Our forces are providing assistance to the SDF in the form of training and equipment to ensure detainees are held securely and properly treated.

58. Senator BLUMENTHAL. General McKenzie, how do you think repatriation should be handled for any non-combatants?

General MCKENZIE. It is in the best interest of all parties to get IDPs and refugees returned to their homes as quickly as the security situation permits. This is a regional and global problem that will continue to require a whole of USG effort to work with nations to repatriate their citizens as quickly as possible. As approximately 85 percent of the population in Al-Hol is Syrian and Iraqi, it is important to have these populations returned home at the earliest safe opportunity as it will relieve pressure on the camps as we continue to work the more complicated repatriations.

59. Senator BLUMENTHAL. General McKenzie, is the military facilitating the repatriation of women and children to home countries?

General MCKENZIE. United States Central Command continues to support the Department of State in returning foreign fighters and their families to their country of origin.

60. Senator BLUMENTHAL. General McKenzie, are you concerned with the potential for increased radicalization within these camps as we have seen before in places like Iraq?

General MCKENZIE. Yes. Which is why it is so important that we get the people back to their homes and countries of origin as soon as the security situation permits. Radicalized ISIS supporters within camps such as Al-Hol in Northeast Syria remain a threat and a challenge. Many of the camp residents are family members-wives and children, generally-of ISIS fighters. A large percentage of the children have witnessed-or participated in-acts of violence in support of the "caliphate."

ISIS radicalization efforts will likely continue until residents can be returned to their homes or countries of origin while the hardcore ISIS cadre, regardless of their citizenship, are moved to a more secure environment.

61. Senator BLUMENTHAL. General McKenzie, what role is DOD playing to prevent this radicalization?

General MCKENZIE. The Department of Defense is not tasked with the deradicalization of civilians. We have demonstrated through our actions a compassion and kindness in the care and treatment of these populations. I recognize this is a critical effort to help prevent future fighters. While we are not in the camps, we help provide training to the SDF who provide security. We provide logistical support to enable the important work that is going on in the camps in support of United States Agency for International Development (USAID), the International Committee of Red Cross (ICRC), and other Non-governmental Organizations (NGOs).

TURKISH USE OF CHEMICAL WEAPONS IN SYRIA OFFENSIVE

62. Senator BLUMENTHAL. General McKenzie, there were many media reports that Turkish proxies were deploying munitions loaded with white phosphorus, and that civilians and children in Ras al-Ain were suffering from chemical burns. The intentional use of this weapon against civilians undeniably constitutes a war crime, and is particularly alarming given the stated Turkish goals of "demographic change." Have you been able to confirm these allegations of Turkish deployment of white phosphorus munitions?

General MCKENZIE. We are unable to confirm or deny the use of white phosphorus munitions by Turkish forces at this time.

63. Senator BLUMENTHAL. General McKenzie, have any United States origin defense articles been used in connection with the Turkish offensive in Syria—including with the use of chemical weapons? Was any such use in violation of the applicable end use agreements?

General MCKENZIE. [Deleted.]

QUESTIONS SUBMITTED BY SENATOR MARTIN HEINRICH

BALLISTIC MISSILE THREAT FROM IRAN

64. Senator HEINRICH. General McKenzie, in the weeks since the Iranian attack on Al-Asad Air Base in Iraq, you've led an effort to increase air and missile defense capabilities in the region to protect our servicemen and women from the continuing threat of Iranian missile and drone attack. How are you working with the military

services to transition proven systems that use directed energy and high-powered microwave technology to form part of a layered defense against these threats?

General MCKENZIE. The decision to make the Army the Executive Agent (EA) for Counter UAS (CUAS) is significant. United States Central Command (USCENTCOM) directly coordinates and supports the EA through ensuring our requirements are captured and resourced as appropriate. USCENTCOM serves on the EA' s Board Advisory Council (BAC), currently in the process of down-selecting the "best of breed" systems and capabilities for further investment. Furthermore, USCENTCOM serves as the operational "test-bed" for counter-unmanned aircraft system fielding. Specifically, with the application of directed energy and high-powered microwave technology, USCENTCOM works with the Services to expedite the validation requirements for the employment of these new systems in an operating setting.

QUESTIONS SUBMITTED BY SENATOR ELIZABETH WARREN

LAW OF WAR

65. Senator WARREN. General McKenzie, President Trump threatened to destroy Iranian sites "important to . . . the Iranian culture" and threatened future retaliation in "a disproportionate manner" on January 4 and January 5, 2020. The Department of Defense (DOD) Law of War Manual states that "[c]ultural property, the areas immediately surrounding it, and appliances in use for its protection should be safeguarded and respected." On January 6, 2020, Secretary Esper expressed that the United States "follow[s] the laws of armed conflict." Do you agree with the DOD Law of War Manual and Secretary Esper's remark?

General MCKENZIE. All United States Central Command operations are conducted in compliance with United States law, Department of Defense policy, and applicable international law, including the Law of War.

66. Senator WARREN. General McKenzie, with the caveat the United States reserves the right of self-defense, does the 2001 Authorization for the Use of Military Force (AUMF) or the 2002 AUMF against Iraq give United States Central Command the authority to use military force against the government of Iran?

General MCKENZIE. As stated most recently in the January 27, 2020 Statement of Administration Policy regarding H.R. 2456, the 2002 Authorization for the Use of Military Force (AUMF) has long been understood to authorize the use of force to address threats emanating from Iraq, including threats directed by Iran against United States Forces in Iraq and Syria. Iran conducts and directs the actions of several terrorist groups in Iraq, including Kata'ib Hezbollah. Iran and its proxies continue to plan and execute attacks against United States, Coalition, and Iraqi forces. The 2002 AUMF provides critical domestic legal authority for United States Forces to defend themselves, and our Coalition and Iraqi partners, against threats to, or stemming from, the territory of Iraq.

67. Senator WARREN. General McKenzie, former National Security Advisor and retired Army Lieutenant General H.R. McMaster recently observed at a public forum on March 3, 2020, "I don't really care what international law said," regarding the killing of Iranian Major General Qasem Soleimani and that his killing was "the righteous use of violence." In your experience, does the U.S. military regard international law as something that should generally be adhered to or disregarded?

General MCKENZIE. It is long-standing Department of Defense policy that members of the U.S. Forces comply with the Law of War during all armed conflicts, and in all other military operations. The Law of War is that part of international law that regulates the conduct of armed hostilities, including all relevant international law binding upon the United States by treaty or as customary international law. The Uniform Code of Military Justice provides criminal sanctions for serious violations of the Law of War, and other relevant international law binding upon the United States. U.S. Forces comply with the Law of War and all other related international law binding upon the United States during the conduct of military operations as a matter of course, as a trained and disciplined armed force representing the United States and our values.

IRAN

68. Senator WARREN. General McKenzie, recent reports indicated that between March 11, 2020 and March 13, 2020, two Americans and one coalition servicemember were killed and other United States personnel were wounded in two separate

rocket attacks on Camp Taji, Iraq, and that these attacks were supposed to have been carried out by proxy groups backed by the Iranian Government. In a March 4, 2020, DOD Fiscal Year 2021 budget posture hearing, Secretary Esper and stated that the killing of Iranian Major General Qasem Soleimani "restored deterrence to a degree." In your view, how has the killing of Soleimani restored deterrence to further Iranian malign activities through its proxy forces?

General MCKENZIE. I agree with the Secretary. Our actions have demonstrated our resolve to confront those that attack and kill Americans. However, I believe Iran is prepared to engage in escalatory action in Iraq to compel the departure of United States Forces.

69. Senator WARREN. General McKenzie, on December 5, 2019, I asked Lieutenant General David W. Allvin, USAF, Director for Strategy, Plans and Policy, Joint Staff the following question for the record: "Would you say that the threat of Iran developing a nuclear weapon has increased, decreased, or remained relatively unchanged since the United States withdrew from the Joint Comprehensive Plan of Action (JCPOA)?" On February 24, 2020, he responded: "The threat of Iran developing a nuclear weapon clearly remains, based upon their capability and intent. Although Iran's recent violations of JCPOA restrictions incrementally increase its capability to pursue weapons-grade enriched uranium, we have seen no direct evidence to indicate the regime desires to pursue the development of a nuclear weapon." Do you agree with Lt. Gen. Allvin?

General MCKENZIE. Yes, in my opinion the threat of Iran developing a nuclear weapon remains largely unchanged since the United States withdrew from the Joint Comprehensive Plan of Action (JCPOA). There is no evidence the Iranian regime desires to pursue the development of a nuclear weapon. Should their decision calculus change, Tehran very likely retains the expertise and rudimentary production capabilities to restart processes essential to the development of a nuclear device, to include likely dual-purpose nuclear procurement and research activities.

AFGHANISTAN

70. Senator WARREN. General McKenzie, how many United States contractors are in Afghanistan as of the date of your hearing (March 12, 2020)?

General MCKENZIE. Nine thousand nine hundred seventy-four United States Department of Defense contractors are in Afghanistan. This is the contractor population accounted for in SPOT, the Department of Defense's program of record.

71. Senator WARREN. General McKenzie, assuming the Taliban implements its commitments to the February 29, 2020, United States-Taliban agreement and the United States withdraws all of its forces along the 14-month timeline outlined in the agreement, how many United States military contractors will remain in Afghanistan?

General MCKENZIE. [Deleted.]

72. Senator WARREN. General McKenzie, what impact, if any, does the absence of the Afghan Government as a party to the United States-Taliban agreement have on the prospect of the long-term success of the agreement?

General MCKENZIE. The State Department led the United States-Taliban Peace Deal negotiations, and therefore I recommend that this question be referred to the State Department because it concerns the substance of Intra-Afghan Negotiations.

73. Senator WARREN. General McKenzie, what is your understanding of the extent to which the withdrawal of United States Forces depends on the outcome of political settlement—or lack thereof—between the Afghan Government and the Taliban?

General MCKENZIE. The current United States drawdown is independent of a political settlement between the Afghan Government and the Taliban. Any follow-on force reductions will not occur until we are ordered to do so.

QUESTIONS SUBMITTED BY SENATOR DOUG JONES

IRAQI SECURITY SELF-SUFFICIENCY

74. Senator JONES. General McKenzie, your posture statement says, "Given ISIS' demonstrated tenacity and ability to reconstitute, we cannot afford to divert focus from the D–ISIS mission, understanding that the territorial defeat of ISIS does not mean the absence of ISIS. The years ahead will not be bloodless. Attacks may continue in the form of an insurgency, but the goal is to develop and enable the ability

of the Iraqi Security Forces to contain and defeat ISIS without external assistance." When do you see us achieving this goal of enabling the Iraqi security forces to contain and defeat ISIS on their own?

General MCKENZIE. Until recently, we were on a solid glide path for the Iraqi Security Forces to independently contain and defeat ISIS by early-to-mid year 2021. However, significant changes in the operational environment in Iraq created a pause in training and partnering operations due to a focus shift to force protection, impacts of the COVID–19 pandemic, and disarray of the Iraqi Government have made it very difficult to identify when we can expect to achieve our Iraqi Security Forces goals at this time.

75. Senator JONES. General McKenzie, is it realistic to expect the Iraqis to protect our national security interests when it comes to the ISIS threat?

General MCKENZIE. Yes, I do think it is reasonable to expect the Iraqis to help meet our national security interests concerning the ISIS threat. They are our security partners to help defeat a common enemy, ISIS. However, the current challenges in the Iraqi Government including lack of a viable Prime Minister Candidate and Iranian influence in the Council of Representatives is currently hindering Iraqi support to our broader security interests.

AFGHAN SECURITY SELF-SUFFICIENCY

76. Senator JONES. General McKenzie, do you see the Afghan National Defense and Security Forces being able to handle their own security in the near future, and if so, when?

General MCKENZIE. Yes. Assuming the Government of the Islamic Republic of Afghanistan and Taliban are able to reach a political settlement, the main threat to the Afghanistan National Defense and Security Forces - the Taliban - will be neutralized, and the remaining security threats will primarily consist of Violent Extremist Organizations such as ISIS–K and criminal organizations.

77. Senator JONES. General McKenzie, if not, what will happen if the United States pulls all its troops out in 14 months, or on some other time frame, according to the February 29th agreement with the Taliban?

General MCKENZIE. I do not deal in hypotheticals. Our withdrawal of forces is ultimately a political decision that we will execute if and when ordered. As I have stated previously, any withdrawal of U.S. Forces will be conditions-based to protect our national interests.

78. Senator JONES. General McKenzie, how will we ensure that Afghanistan never again is host to terrorist groups who can launch 9/11-style attacks on the United States, which is our mission in Afghanistan?

General MCKENZIE. First, by verifying that the Taliban fulfill their counter-terrorism commitments contained in the United States-Taliban Peace Deal. Second, by continuing to develop the Afghan National Defense and Security Forces (ANDSF) capabilities so that the ANDSF matures into a sustainable professional force that is capable of managing terrorist threats within Afghanistan's borders. Third, by pursuing a counter-terrorism partnership and normalized security cooperation relationship with Afghanistan for the foreseeable future.

TALIBAN AGREEMENT

79. Senator JONES. General McKenzie, according to the agreement, if conditions are met, the U.S. is to withdraw all troops in the next 14 months. You told the House Armed Services Committee that "to date, Taliban attacks are higher than we believe are consistent with an idea to actually carry out this plan. Does the Taliban leadership have the ability to influence their entire organization in order to comply with the terms of the agreement?

General MCKENZIE. Yes, I believe the Taliban leadership does have the influence to effectively command and control its fighters. This was evident during the seven-day Reduction in Violence (RiV) and previous local cease-fires, when the Taliban was able to enforce adherence to terms. The recent rise in violence is the result of a deliberate, publicly announced Taliban plan to resume violence against Afghan targets while refraining from attacks against Coalition forces. While not conducive to the eventual withdraw of troops, this resumption in violence should not be seen as the Taliban's inability to control its fighters, but as a matter of Taliban policy to pressure Kabul before and during Intra-Afghan Negotiations.

IRAN FORCE POSTURE

80. Senator JONES. General McKenzie, your prepared statement says that we must posture the Joint Force to deter Iran from using its military to counter our diplomatic and economic sanctions, so long as those are in place. If those sanctions were to end, what posture would we need to have with regard to Iran, taking into account the elements of Iran's policy you listed, including its pursuit of nuclear weapons, regional ambitions, and threats to the United States and our partners?

General MCKENZIE. U.S. posture in the region will depend upon the conditions that exist when the sanctions end. If the United States and Iran come to a broader diplomatic agreement that curbs Iran's nuclear weapon ambitions and malign actions across the Middle East, then our force posture may require Jess personnel, military capabilities, and basing. Should sanctions be removed with no fundamental change in Iranian behavior and/or calculus, or a change in United States strategic direction for the region, then we will be required to continue retaining sufficient posture in the region to deter Iranian aggression and assure our partners and allies.

DEPARTMENT OF DEFENSE AUTHORIZATION REQUEST OF APPROPRIATIONS FOR FISCAL YEAR 2021 AND THE FUTURE YEARS DEFENSE PROGRAM

THURSDAY, MARCH 26, 2020

UNITED STATES SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

ARMY POSTURE

OPENING STATEMENT OF SENATOR JIM INHOFE, CHAIRMAN

To receive testimony on the posture of the Department of the Army in review of the Defense Authorization Request for Fiscal Year 2021.

The Committee is conducting this hearing to receive testimony on the posture of the U.S. Army and its fiscal year 2021 budget request.

We welcome the testimony of Ryan McCarthy, Secretary of the Army, and General James McConville, Chief of Staff of the Army, on these matters, and thank both for their distinguished service.

Today, our Nation is facing an unprecedented health crisis. The entire Federal Government—including the Department of Defense and all of the Services—is working non-stop to halt the spread of the novel coronavirus and mitigate its effects.

Of great concern to me today is how the Army is handling this emergency. First and foremost—how are our soldiers and their families being protected and taken care of?

In addition, I want to better understand the operational effects, and what steps you are taking to minimize its impact to the national security missions of the Army.

I commend you both, Secretary Esper, and the entire Department for taking every precaution to protect our servicemembers from COVID–19 so far—and I am confident that you will continue to prioritize the health and safety of our soldiers, as well as the success of our missions.

While we are dealing with this enormous and urgent challenge, we've also got to keep an eye on our persistent national security objectives and challenges.

The National Defense Strategy (NDS) directs our Nation's military to address the return of great power competition. This means we must be prepared to deter and, if necessary, defeat potential near-peer adversaries like China and Russia.

For the Army to achieve that goal, our Army must be manned, trained, and equipped appropriately.

The Army continues to make significant progress in rebuilding readiness across the force, but there is still much work to be done. Maximizing readiness, both tactical and strategic, is crucial for our Nation to maintain peace through strength.

Russia and China have modernized both conventional and nuclear forces with alarming speed, and now present a credible regional threat to America and our allies—as well as an increasing threat around the world. In some areas, they have surpassed us.

It's past time for action. After 3 years of significant increases in defense budgets thanks to President Trump, this year's defense topline falls well short of the 3 to 5 percent growth recommended by the National Defense Strategy Commission report. In fact, it represents a $15 billion decrease in purchasing power. This isn't your fault, but you will have to deal with the repercussions.

This will mean homing in on top priorities—like readiness and modernization. Several of these priorities are housed at Fort Sill in Oklahoma, including Air and Missile Defense and Long-Range Precision Fire. In addition, any successful modernization strategy must focus on results. We cannot allow the past acquisition failures to be repeated.

The Army recently undertook a second iteration of the detailed and exhaustive look at every single program to ensure that each supports the National Defense Strategy—an important task started by now-Secretary of Defense Esper.

You have made hard decisions to prioritize programs that effectively implement the NDS. This resulted in reallocating funding for modernization efforts that will help the Army regain a qualitative and quantitative advantage over our adversaries.

Continuing to make smart and informed choices will require an open and transparent dialog with Congress along the way. We look forward to working with you to make our shared modernization vision a reality as the Army reinvents itself to become a 21st century fighting force prepared for the more lethal and dynamic battlefields that define today's reality.

OPENING STATEMENT OF SENATOR JACK REED, RANKING MEMBER

Our Nation is in the grips of an extraordinary and unprecedented crisis due to the novel coronavirus pandemic and the spread of COVID–19. Right now our most immediate concern is ensuring the public's safety by practicing social distancing and promoting vigorous personal hygiene, while taking care of those that have tested positive for the disease. At the same time, Congress must continue to do our job, and I thank the Chairman for ensuring this Committee performs its oversight function while we safeguard the health of the witnesses, our staff, the general public, and the Members of this Committee.

In addition, I want to express the condolences of this Committee on the death of a defense contractor from COVID–19, as well as everyone who has lost a loved one during this pandemic. We are also keeping the servicemembers, dependents, civilians, and contractors who have been diagnosed with COVID–19, as well as all Americans

suffering from this disease, in our thoughts and prayers. As a Nation, we must do everything we can to stop the spread of COVID–19 and protect families, workers, and businesses.

Before turning to the Army's Fiscal Year 2021 budget request, I want to commend the Army for their efforts to assist in the response to the novel coronavirus pandemic. The U.S. Army Corps of Engineers is assisting the Federal Emergency Management Agency (FEMA) with the planning and construction of alternative medical facilities in New York. The Corps is also supporting planning missions for the New England region, Philadelphia, Norfolk, and Baltimore. In addition, the National Guard soldiers who have been called up for duty by the Governors have been instrumental in our response. They have provided logistics and transportation, support for medical-testing facilities and State emergency operations centers, and special help with disinfecting and cleaning missions. Furthermore, the Department of Defense announced that 16 of the military's laboratories, many of which are Army medical facilities, will begin coronavirus testing for civilians. Finally, the Army has issued orders to hospital centers at Fort Carson, Fort Campbell, and Fort Hood to deploy units to Seattle and New York in order to provide medical support to civil authorities. On behalf the Committee, we thank you.

While the Department of Defense, and the Army in particular, has been a strategic resource during the novel coronavirus outbreak, there are policy decisions that need to be immediately revisited. First, this pandemic will not be stopped by a wall on our Southern border. Right now our hospitals are contending with a shortage of ICU [intensive care unit] beds and will soon be at patient capacity in some areas. Our healthcare workers are in dire need of personal protective equipment for their own safety, and hospitals lack respirators and ventilators to treat patients. And yet, earlier this week the Army awarded a $524 million contract to replace additional sections of the border wall.

To continue to funnel billions of dollars and military manpower to this project instead of providing resources to health care providers, first responders, and State and local governments as thousands of Americans fall ill and need urgent and immediate life-saving acute care is unconscionable. President Trump must immediately reorient all resources that have been diverted to the wall and make them available for Covid–19 support efforts.

In addition, the Army has a long history of scientific excellence concerning biological agents, and much of that work occurs at the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) at Fort Detrick. However, in recent years the Department of Defense has not prioritized this incredibly critical mission, and in fact has cut funding for the program in the Fiscal Year 2021 budget. We need to understand immediately what the Army plans do to ensure USAMRIID remains a world class institute, with a particular focus on how the Army plans to bring the new High Containment Laboratory, which is one of the world's most advanced facilities for dangerous pathogen research, on line in the quickest and safest manner possible.

The President's Budget Request for Fiscal Year 2021 includes $178 billion in funding for the Army. Of that amount, $150.3 bil-

lion is for base budget requirements, $2.8 billion for base budget requirements included in the Overseas Contingency Operations (OCO) account, and $24.9 billion for traditional OCO activities. The Army is reorienting budget resources to align with the National Defense Strategy (NDS) and the national security challenges facing our country. For the second consecutive year, senior Army leadership scrutinized existing programs to determine which ones supported the Army's modernization priorities, and which programs should be reduced or canceled so that savings could be reinvested for other priorities. While this Committee may not agree with every budget decision made by the Army, and we will be closely scrutinizing their budget request, the Army did make tough decisions to prioritize funding for the future fight.

However, implementing the NDS requires more than a reallocation of budget resources to engage in strategic competition against China and Russia. It will also require that the Army train for full spectrum operations and develop new warfighting concepts, as well as ensuring our soldiers have the equipment necessary for a high end fight.

To support this effort, Army Futures Command, and the eight cross functional teams tasked with overseeing the Army's major modernization priorities, have transformed the processes by which warfighting capability is delivered to our soldiers. The Army has ramped up efforts to mature technology and build experimental prototypes, as well as conduct soldier touch points to provide feedback on the effectiveness of these new systems in the field. The Army is pursuing this overhaul of its acquisition process to ensure we keep pace with our near peer competitors by delivering cutting edge capabilities to the warfighter on an expeditated timeline.

The fiscal year 2021 budget request funds 19 combat training center (CTC) rotations for brigade combat teams. These rotations are critical to ensuring our soldiers are properly trained and ready to fight. However, we will likely see significant negative impacts to readiness levels as training exercises are postponed due to the COVID–19 crisis. The Army has already made the decision to cancel three CTC rotations as a result of COVID–19, and they are currently evaluating future schedules. The safety of our troops must remain our highest priority, and the Committee will be closely monitoring this situation in the weeks and months ahead.

Finally, the President's Budget requests an across-the-board pay raise of 3 percent for all military personnel. However, the President has decided that civilians should only receive a 1 percent pay raise, and the budget freezes significant locality adjustments for civilians that would otherwise be due them under existing statute. At a time when we need civilians the most, this budget request sends the message that their work and contributions to our national defense are not valued, and it hinders the Army's ability to recruit the very best civilian workforce we need. If this pandemic has taught us anything it is the need for a strong and competent Federal workforce—which the President's budget does not support.

Again, I want to thank the Chairman and our witnesses for their willingness to participate in this unusual hearing method during these unprecedented time. I look forward to working closely with the Army as we move forward. Thank you, Mr. Chairman.

[The joint prepared statement by Secretary Ryan D. McCarthy and General James McConville to follow:]

RECORD VERSION

STATEMENT BY
THE HONORABLE RYAN D. MCCARTHY
SECRETARY OF THE ARMY

AND

GENERAL JAMES P. MCCONVILLE
CHIEF OF STAFF
UNITED STATES ARMY

BEFORE THE

SENATE ARMED SERVICES COMMITTEE

SECOND SESSION, 116TH CONGRESS

ON THE POSTURE OF THE UNITED STATES ARMY

MARCH 26, 2020

Finishing What We Started

Two and a half years ago, Army Senior Leaders developed the priorities of Readiness, Modernization, and Reform with the support of Congress. Today, the Army's senior leadership has changed, but our priorities have not, and it is people who are our foundation. This budget request builds upon the funding that Congress has generously provided over the past three years to continue our irreversible momentum towards a ready, modernized, multi-domain Army. We are building strategic readiness while sustaining tactical readiness. We are modernizing to ensure future readiness. And we continue to reform our systems to optimize resources.

To date, the strategic environment remains dynamic and great power competitors continue to invest significant resources to modernize their militaries. The Army must maintain a ready force to meet today's challenges, while implementing a transformational modernization effort to ensure the Army is prepared for future threats. The only way in which the Army can achieve our objectives is through our People. People – our Soldiers, Families, Army Civilians, and Soldiers For Life – our Retirees and Veterans – are the foundation of everything we do and are the greatest strength of our Army. We rely on their talent, initiative, innovation, and teamwork to drive the Army forward into the next great era of U.S. Army power-projection dominance.

We are grateful to Congress for the strong support provided to the Army in Fiscal Year 2020 (FY20). With this funding, the Army continues to build readiness to complete missions required by our national leaders, across the globe and with little notice, while taking actions to help our country compete with and deter near-peer competitors. At the same time, the Army continued aggressive modernization efforts to drive the transformational change necessary to ensure America's Army will also be able to win in the future against Great Power Competitors. Consistent funding levels and the continued support of the Congress are critical to achieve modernization. With Congress' steadfast support, we are here to finish what we collectively started.

The Army's FY21 Budget request totals $178B. FY21 BASE requirement totals $153.1B. FY21 Overseas Contingency Operations (OCO) requirement totals $24.9B. This budget proposal continues to align resources in accordance with the National

Defense Strategy, provide substantial support to the Joint Force, and reinforce our Army priorities of Readiness, Modernization, and Reform. Moreover, it keeps the Army on a path to be ready today AND in a future where we will be contested in every domain – land, sea, air, space, and cyber space. Through continued timely, adequate, predictable, and sustained budgetary support, the United States Army will remain ready today as we transform for the future.

Strategic Environment

The National Defense Strategy made clear that the world is complex and dangerous, requiring the Army be prepared against a range of current and potential military challenges. In particular, Russia and China are investing heavily in advanced military capabilities and seek to change the current global balance of power. Russia has the greatest capability to challenge U.S. interests today and is expected to deliver modern capabilities to its forces through the mid to late 2020s. China is our nation's greatest long-term challenge. By 2030, China is expected to be the world's largest investor in research and development, and field a fully modernized force by 2035: investing in artificial intelligence (AI), robotics, energy storage, 5G networks, quantum information systems and biotechnology.

Great Power competition does not have to mean Great Power conflict. In accordance with the National Defense Strategy, the Army recognizes it must be able to compete below the level of armed conflict as well as fight and win against a near-peer competitor. Even if we may not confront Russia or China directly, we are likely to face their systems and methods of warfare as they spread military capabilities to others.

Additionally, regional state adversaries, namely North Korea and Iran, present significant challenges as they pursue advanced capabilities and weapons of mass destruction to gain regional influence and ensure regime survival. Moreover, transnational terrorist organizations continue to threaten our homeland and interests, as well those of our allies and partners. The Army must and will be prepared to defeat and deter highly capable adversaries while disrupting violent extremist organizations and simultaneously defending the homeland.

Today, the Army contributes to achieving objectives outlined in the National Defense Strategy by providing Combatant Commanders over 180,000 Soldiers in more than 140 countries. Army forces comprise 60 percent of Combatant Commander's requirements. This includes over 27,500 Soldiers supporting operations in the Middle East; over 10,000 Soldiers supporting operations in Afghanistan; 32,500 Soldiers in Europe supporting NATO and the European Deterrence Initiative; and over 21,000 Soldiers providing a forward American presence on the Korean Peninsula.

Fortunately, the Army does not fight alone. Warfighting is a human endeavor and establishing and maintaining relationships is critical to what the Army does. We rely on our allies and partners to posture ourselves for future threats, project power, deter and, if necessary, defeat our adversaries. This partnership allows costly and complex problems to be distributed and helps protect the industrial base through Foreign Military Sales (FMS). Having close partnerships enable faster innovation and cost-sharing towards change to our modernization priorities. In addition, partnerships create a shared understanding of the threat picture, and ensures interoperability so that the current delicate balance of power and relative global peace may continue. The Army must continue to compete for and retain allies and partners, as our adversaries will attempt to do the same.

Ultimately, America's Army remains prepared today to respond to other contingency operations, both abroad and at home. However, global demand continues to rise. In response to an increasingly uncertain global picture, the Army is investing in the research and development of the next generation of weapons and equipment needed to stay ahead of our adversaries. Through a disciplined prioritization of resources, the Army will remain postured to defend the Nation.

Readiness

Readiness remains the Army's top priority. We are evolving the way we approach and measure readiness in order to continue to complete missions outlined in the National Defense Strategy. Over the past two years of diligent focus across all three components, Army leaders have successfully rebuilt tactical readiness – the ability of Army units at the

division level and below to fight and meet the demands of their assigned missions. Over the last year, 74% of Active Component Brigade Combat Teams have been at the highest levels of tactical readiness.

In FY21, the Army will continue to focus readiness at the individual, squad / crew, and platoon levels increasing multiple repetitions in order to build upon the basic blocks of lethality. This focus, increasing lethality at the point of ground contact with the enemy, will thereby improve overall BCT readiness. The Army will continue to conduct habitual training using the Combat Training Centers (CTC) such as National Training Center (NTC), and no-notice Emergency Deployment Readiness Exercise (EDRE). Our forces must and will remain lethal and ready.

As the Nation's understanding of the global threat picture evolves, the Army must evolve with it. Tactical readiness prepares our forces to address the current host of adversaries as the last nearly two decades of combat demonstrates. Tactical readiness, however, is not enough to prepare us for competition and conflict against Great Power competitors. The Army must strike a balance between tactical readiness and strategic readiness and establish the logistical footprint needed to accomplish both.

While preparing for the future fight, we will increase our efforts toward achieving Strategic Readiness. Strategic Readiness provides an advantage over our adversaries by demonstrating the Army's ability to rapidly mobilize, deploy, and sustain combat forces. Strategic Readiness will focus on the testing of new concepts, experimenting with new formations and understanding the logistical framework needed to sustain our forces.

Today, the Army is investing in Strategic Readiness by experimenting with new concepts and formations: Multi-Domain Operations (MDO), Multi-Domain Task Force (MDTF), and institutionalizing lessons learned during irregular warfare by employing Security Force Assistance Brigades (SFAB). The Multi-Domain Operations Concept supports the emerging Joint Warfighting Concept. In FY20, the DEFENDER exercises in Europe and the Indo-Pacific will further test and demonstrate our power projection capabilities with our allies and partners. FY21 exercises will expand to the Pacific.

We have institutionalized the lessons we learned during irregular warfare by employing Security Force Assistance Brigades (SFABs). SFABs continue to prove their

worth as an economy of force capability to meet the objectives of the National Defense Strategy by strengthening alliances and attracting new partners while competing globally and freeing conventional brigade combat teams to prepare for Large Scale Combat Operations. Last year, the Army activated the final SFAB, bringing the total to five active duty SFABs and one Army National Guard SFAB. The Army's goal is six fully manned, trained and equipped SFABs.

Additional key components to Strategic Readiness are systems of critical infrastructure that includes installation facilities – motor pools, maintenance bays and Supply Support Activities – and Strategic Power Projection platforms – the ports, roads, airfields and railheads – that move our troops and equipment from the installation to the battlefield. To test and assess our Strategic Readiness capabilities and support Dynamic Force Employment, we are conducting the DEFENDER series of exercises in both the Pacific and European theaters of operation to a size and scale not seen in decades. Additionally, the Army recently deployed one Battalion in 21 hours and one Brigade Combat Team in 122 hours to Iraq.

In order to overcome the logistical issue of equipping forces, while maintaining speed, the forward positioning of logistics becomes critical. The forward positioning of equipment, munitions and materiel enables Strategic Readiness for three key purposes: speed troops to the frontlines; ease strategic air and sea lift requirements for units deploying from the U.S.; and reassure allies and partners while deterring adversaries. Through a concerted effort, we have significantly improved the condition of Army Prepositioned Stocks (APS), configured-for-combat sets of equipment that are sized and constructed to meet theater requirements, and we work closely with the Combatant Commands to ensure APS are positioned and located where they can best achieve their desired effects.

In addition, we have also strengthened munitions readiness, ensuring munitions stockpiles are strategically positioned in the U.S. and abroad to enable flexibility and speed. We consistently and continuously assess forward-positioned equipment and stockpiles as the global environment changes to bolster our capacity and capabilities, and to meet COCOM requirements.

Moreover, the Army's Organic Industrial Base (OIB) – 26 depots, arsenals and ammunition plants – manufacture, repair, upgrade and modernize the Army's equipment, and are absolutely critical to both Strategic and Tactical Readiness. We are optimizing the OIB to three primary end states: support current unit readiness across the force; maintain the ability to meet wartime surge requirements; and modernize and retool to sustain the next generation of Army equipment. Through implementation of Repair Cycle Float, a new methodology that links OIB production and workload to Army readiness, we will fundamentally change and improve the way we resource and manage these critical facilities.

Tactical and Strategic readiness, combined with the logistical framework necessary for sustainment, are what enable the Army to remain ready today while simultaneously preparing for the future fight. Although the Army is still experimenting with concepts and doctrine, our new capabilities are very much real. FY21 strategic DEFENDER exercises in Europe and the Indo-Pacific will serve as our testing grounds as we continue to develop new methodologies for the future of warfare and modernize our Army to meet future great-power competition.

Modernization

The Army is two years into its most transformational change in four decades. Large-scale modernization takes time and patience. We have continued to prioritize the Army budget towards our 6 modernization priorities and 31+3 signature systems, ranging from hypersonic missiles, new squad-level weapons, to aircraft. Prototypes that began in FY18/19 are maturing, with real capability landing in FY21/22. In this fiscal year, we will increase Soldier touch points, test shots, capability demonstrations and the fielding of our formations.

Cloud technology is the foundation for the entire modernization endeavor. Because of the Cloud's importance, we are investing $800M over the next five fiscal years into Cloud Architecture. Cloud investments will enable the inventory of data, migration of the data to the Cloud, and software development. Artificial Intelligence (AI) enables linking all sensors to all shooters and all Command and Control (C2) nodes. AI- enabled operations

turn information into actionable intelligence and understanding of the threat environment. The Army is making incredible strides with Cloud technology as well as our Six Modernization Priorities:

Long Range Precision Fires - We will improve the range and lethality of cannon artillery and increase missile ranges and capabilities to ensure overmatch. We will invest over $800M in hypersonic to accelerate our strategic fire capabilities to neutralize and dis-integrate adversary formations and A2/AD networks, from extended ranges, to create windows of opportunity for the Joint Force to exploit. The Extended Range Cannon Artillery is on schedule for delivery in FY23. It will protect and support maneuver forces in the close and deep operational maneuver areas with an extended range out to 70km. The Precision Strike Missile is on schedule to conduct its maximum range test in 3QFY21 and deliver 30 missiles in FY23. It will realize greater range, lethality and survivability at a lower cost than ATACMS. The Army has requested $1.7B for Long Range Precision Fires in the FY21 President's Budget to accelerate prototyping and initial fielding.

Next Generation of Combat Vehicles - The Army will develop the next generation of combat vehicles through technology development, experimentation, and rapid prototyping to ensure overmatch against near-peer competitors. These vehicles will employ greater firepower, mobility, and protection to successfully maneuver on more lethal battlefields. The Optionally Manned Fighting Vehicle (OMFV) will provide manned-unmanned teaming options with Robotic Combat Vehicles and other platforms to maneuver Soldiers to a point of positional advantage to engage in close combat and deliver decisive lethality during the execution of combined arms maneuver, while simultaneously controlling maneuver robotics and semi-autonomous systems. The OMFV is being designed with an emphasis on supporting weight, architecture, power, and cooling growth to enable spiraled capability as technologies mature. The Robotic Combat Vehicles (RCV) will support decisive mobility, lethality, survivability, increased situational awareness, and formation overmatch with unmanned platforms making contact with the enemy before our Soldiers, while delivering overmatch against future threats. The final RCV capability will be refined by three increasingly complex experiments and capability

demonstrations, displaying both government and industry platforms, between FY20-24 with a decision to procure or reassess NLT FY24.

The Armored Multi-Purpose Vehicle (AMPV) will replace the M113 Family of Vehicles with a modern and more survivable general-purpose, mortar carrier, medical evacuation, medical treatment, and mission command vehicles that can move at the pace of current and future combat vehicles and is able to incorporate future technologies. The first unit equipped with AMPV will be in FY22. Mobile Protected Firepower (MPF) is an armored vehicle that provides precise, large caliber, long-range direct fires for Infantry Brigade Combat Teams. The first unit equipped with MPF will be in FY25. We requested $425M in the FY21 President's Budget to deliver these capabilities.

Future Vertical Lift (FVL) - We will increase our competitive aviation advantage with next generation aircraft designed to penetrate contested airspace and support independent maneuver from greater distances through extended range, endurance and lifting capacity. The most important FVL investments in-progress are the Army's development of the Future Armed Reconnaissance Aircraft (FARA), designed to address the gap left by retirement of the Kiowa; and the Future Long Range Assault Aircraft (FLRAA) to replace the venerable UH-60 platform. The FARA prototype fly off will begin in FY23. Initial FLRAA prototypes are expected in FY25. FARA and FLRAA will both conduct first unit equipping in FY30. Over $800M is included in the FY21 President's Budget to develop initial designs and unmanned demonstration systems.

Network - The Army Network supports mission command and the continuous integration of combined arms and Joint capabilities. We will deliver a resilient and secure tactical communications network effective in the most challenging contested and congested electromagnetic spectrum and cyber environments starting in FY21. This network includes advanced information technology, hardware and software, and a reduced electromagnetic signature. We will deliver this network by fielding new capability sets, on a two year basis, that build off of each other and that are infused with commercial solutions and informed by Soldier-led experimentation. Inserting technology in two-year capability sets provides flexibility to augment and integrates IT capability as it emerges from industry. Capability Set 21 will be fielded to four Infantry Brigade Combat Teams in

FY21. We have allocated $2.19B in the FY21 budget to build our integrated tactical network as part of our network restructuring.

Air and Missile Defense (AMD) - Advanced air and missile defense will protect our forces from adversary aircraft, missiles, and drones to enable joint operations. This includes both theater systems and short-range air defense, like the Maneuver-Short Range Air Defense (M-SHORAD), which will employ directed energy technologies. M-SHORAD is on schedule to deliver four battalions by FY23 equipped with missiles and cannons. Indirect Fire Protection Capability (IFPC) will defend fixed and semi-fixed assets primarily against sub-sonic cruise missiles and Unmanned Aerial threats with a residual capability against fixed and rotary wing aircraft. Thanks to Congressional support, an interim IFPC capability will be fielded in FY22 that will inform the enduring capability. The Lower-Tier Air and Missile Defense Sensor (LTAMDS) will deliver the next generation sensor that fully leverages the capabilities of the Patriot Missile Segment Enhanced (MSE) that is fully integrated into the Army Integrated Air and Missile Defense (AIAMD). The AIAMD initial operational capability is 3QFY22 with fielding to one battalion. The FY21 budget includes $396M to rapidly deliver an initial AIAMD capability by FY22. An integral part of the AIAMD, the Integrated Air and Missile Defense Battle Command System (IBCS), which is a revolutionary command-and-control system that streamlines sensor to shooter capabilities for air and missile defense engagements. This enhanced tracking system delivers an unambiguous view of the operating environment, allowing commanders and air defenders to make critical decisions within seconds.

Soldier Lethality (SL) - We will equip and train Soldiers to extend overmatch through increased lethality, mobility and survivability against emerging threats. This includes improved weapons, sensors, body armor and training. The FY21 budget includes $1.4B for rapid prototyping, development, and procurement of the Next Generation Squad Weapon (NGSW) Rifle and Automatic Rifle, Enhanced Night Vision Goggles (ENVG), Integrated Visual Augmentation System (IVAS) - Heads-Up Display (HUD) 3.0, and the Synthetic Training Environment (STE). IVAS is our best example of a departure from the traditional requirements process. We are working with non-traditional partners, like Microsoft, in three month sprints, using Soldier Touch Points during each sprint to refine

the product - to make sure we get it right. Funding enables a first unit equipped with IVAS in 4QFY21 and a first unit equipped with the NGSW Rifle, NGSW Automatic Rifle, and General Purpose Ammo in 4QFY22. We equipped the first unit with ENVGB in 1QFY20.

We remain committed to our six modernization priorities and 31+3 signature systems as they will be the next generation of weaponry for the U.S. Army to win decisively in the future fight. As we move forward with Army modernization, we will increasingly emphasize integration across our Cross-Functional Teams. As we work on all these efforts, we will conduct regular touch points with Soldiers – to make sure that we develop the right solutions for our force. As we modernize, we are committed to working closely with industry to explore and learn what's feasible in terms of innovation, integration, manufacturing, and production. One key to getting modernization right is integrating concepts, force design, capabilities development, and S&T. Army Futures Command, which reached full operational capability this past year, was created to orchestrate that integration.

The Army's transformational modernization efforts continue to build on consistent priorities and a ruthlessly aligned budget. To help ensure the Army has the resources to support this transformational modernization, reform becomes a critical step in that process.

Reform – Transforming an Industrial Age Army to the Information Age

The demand for Army forces, paired against a flat budget since FY 2018, forced tough fiscal decisions in our FY21 budget. In order to build and maintain readiness, continue transformational modernization, and support operations, the Army conducted in-depth program reviews, now known as "night-courts." For the FY21 budget, ensuring success across the modernization portfolio puts further pressure on the liabilities side of the balance sheet, driving the Army even harder to aggressively pursue necessary reforms at every level and make tougher resourcing choices. In-depth program reviews continued in FY21, with an additional $9.0B in programs reduced or eliminated.

- FY20-24 Deep Dive #1: eliminated 93 programs; reduced 93 programs.
- FY21-25 Deep Dive #2: eliminated 41 programs, reduced 39 programs.

Command Accountability and Execution Review (CAER) is an Army Senior Leader led fiscal stewardship program that has netted remarkable results. After 1 full year of implementation, the effort has reduced Operations & Maintenance (O&M) de-obligations (lost purchasing power) by 37% compared to historical norms and 50% compared to FY13. We anticipate continued improvements in CAER's second year of operation. These improvements help mitigate the loss of real purchasing power and allow the Army Senior Leaders to continue to prioritize towards modernization. CAER's progress has also resulted in a sharp reduction of Congressional marks due to unobligations.

While reform is critical to support the Army's modernization effort, the Army must also focus on its greatest strength…its People.

People

The greatest strength of the U.S. Army comes from our people—Soldiers, Families, Army Civilians and Soldiers for Life—our Retirees and Veterans. They represent the best our Nation has to offer. The Army People Strategy (APS) captures our People First philosophy and "winning matters" attitude. The APS guides how we will Acquire, Develop, Employ and Retain our future talent. Accordingly, taking care of our Soldiers and their families is key to Army readiness, modernization, and reform. Army culture is grounded in our enduring values of Loyalty, Duty, Respect, Selfless Service, Honor, Integrity and Personal Courage. These values are time-tested and provide a rock solid foundation. Building on this foundation, "This is my squad" concept emphasizes the positive behaviors that build cohesive teams. We will rely on strong leadership and cohesive teams to combat sexual assault and sexual harassment that tear the fabric of our organization. Furthermore, we must use cohesive teams and increase resiliency to stop the suicide epidemic plaguing our ranks. Every person matters.

We recognize that the force should have the best quality of life possible and Army Senior Leaders are constantly improving the way in which we care for our people. One example of investments into our people are the five focused Quality of Life priorities, which include housing, both family and barracks, transforming healthcare, improving and adequately resourcing Child and Youth Services (FY21 Request: $475M); improving

Spouse Employment opportunities and minimizing the impact of Permanent Change of Station (PCS) moves. We have experienced significant shortfalls in these areas; and, therefore, are refocusing our attention and increasing our efforts. We brought Army leadership back into the housing equation, empowering tenants and holding partners accountable. Our people deserve safe, high quality housing. We are closely examining the healthcare transfer to Defense Health Agency (DHA). It is our duty to provide world-class healthcare to our force and families who sacrifice so much for the Nation.

The Army can no longer be an Industrial Age Army in the Information Age. We are shifting from simply distributing personnel to more deliberately managing our Soldiers and Civilians' talents. The Army Talent Management Task Force (ATMTF) is currently prototyping, piloting, or implementing 39 total talent management initiatives with the goal of implementing most of these initiatives by December 2020. Of these initiatives, the ATMTF is focused on seven major initiatives during FY20: The Army Talent Alignment Process (ATAP), Army Battalion Commander Assessment Program (BCAP), brevet promotions, merit-based promotions, flexible career paths (opt-into/opt-out of promotion boards), direct commissioning, and non-commissioned officer talent management. Army Senior Leaders approved each of these initiatives, and the ATMTF is working with all key stakeholders toward full implementation. Each of these initiatives bridges the gap between the Army's current centrally-directed, data-poor personnel management toward a 21st century data-rich talent management system which best leverages unique individual talents. The Army is working aggressively using the authorities granted by Congress to gain irreversible momentum towards implementation of a talent-based approach for the Total Force. To date, Congressional authorities have enabled us to direct commission seven cyber officers, approve 225 positions for brevet promotion, release the first merit-based promotion list (FY20 ACC MAJ), and establish a framework to adjust the effective date of rank for certain ARNG officers when Federal recognition of promotion was administratively delayed.

Another part of our shift to a 21st century talent-based personnel system is evolving our human resources information technology to improve the active-duty officer management and assignment process and reduce talent management gaps that were

limited by the legacy systems and processes. Notably, the Assignment Interactive Module 2 (AIM2) is a web based information system designed to fundamentally transform the effectiveness, efficiency, and transparency of the officer assignment process by facilitating communication directly between Soldiers, the units with requirements, and the Officer Personnel Management Director (OPMD). AIM2, which bridges the technology gap until full Integrated Personnel and Pay System-Army (IPPS-A) Release 3 fielding, enables the Army to accomplish a significant and historic milestone with the implementation of the new ATAP. For the first time, ~14,000 Active Duty Officers were afforded complete transparency of all available assignments. The first ATAP Cycle using the AIM2 interface saw nearly all eligible officers and units participate, collaborating throughout a 2-month open market window in October and November. This two-way collaboration resulted in 55% of officers and units receiving their first choice and roughly 80% of officers and units receiving one of their top 10% of preferences.

However, achieving a truly 21st century talent based system requires the integration of all components and all Soldiers onto one data rich environment. In this Information Age approach, we are fielding a new Web-based HR system known as IPPS-A. IPPS-A integrates personnel, pay and, talent management functions and will provide the Army with a data rich environment to understand their entire Solider population across every component. IPPS-A will take the lessons learned from AIM2 and apply them across component and across all populations. To date, we have fielded IPPS-A to the Army National Guards of over 30 states and will finish fielding to all 54 states and territories by April of this year. Moreover, in December 21, the Army will field IPPS-A to all components and provide all components greatly enhanced talent management capabilities.

In light of increasing demand for forces, the Army will stay on a trajectory of modest growth across all of the Components in order to meet the increasing demand for forces across the combatant commands. We are an all-volunteer force that must attract and retain talent, which means recruiting remains crucial. The Army People Strategy established four lines of effort to win talent and keep it: acquire, develop, employ and retain talent. The Vision: Cohesive Teams…professional, diverse, integrated and ready to Win.

Finally, the Army has overhauled its Recruiting and Marketing enterprise, exceeding revised end strength goals in FY19, while simultaneously retaining quality Soldiers. We introduced our new recruiting campaign and accompanying advertisement of “What’s Your Warrior?” The campaign showcases the 150 different career opportunities that the Army has to offer. We have modernized the way in which we approach recruiting, leveraging technologies like hyper-local, location-based recruiting to help find America’s best and brightest who may be interested in joining our ranks. Using our Priority 22 Cities as a framework, the U.S. Army will continue seeking talent from every corner of our Nation.

Closing

The Army remains committed to our priorities of Readiness, Modernization and Reform. People are the strength and foundation of the organization. The FY21 budget request provides the necessary funding to achieve our modernization endeavor goals and fully support the NDS. We continue to ruthlessly align every dollar towards our priorities in order to keep the Army a modern, lethal force capable of defending the Nation today and in the future. The Army thanks Congress and the American people for their continued strong support, which enables our ability to accomplish our mission. By providing timely, adequate, predictable, and sustained funding, Congress will ensure America’s Army remains the most capable and lethal ground combat force in the world. Together with Congress, we are here to finish what we collectively started.

[Paper Hearing Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JAMES M. INHOFE

BUDGET AND SUPPORTING THE NATIONAL DEFENSE STRATEGY (NDS)

1. Senator INHOFE. Secretary McCarthy, because the NDS Commission advocates 3 to 5 percent real growth per year to implement the NDS while the Fiscal Year 2021 Budget Request represents a $15 billion reduction in purchasing power, where were you forced to assume risk?

Secretary MCCARTHY. If there was the 3 to 5 percent real budget growth as recommended in the NDS in the fiscal year 2021 topline, the Army would have been able to increase its investments in the critical legacy systems required to fight and win in the future against Russia or China. As there was a reduction in real buying power in fiscal year 2021, the Army chose to fully fund our next generation modernization priorities at the cost of investing as we would have liked in those critical legacy platforms. For example, the Army reduced Joint Light Tactical Vehicle procurement by $1.3 billion over the FYDP which results in HMMWV's being in formations longer than if we had 3 to 5 percent real budget growth. We also reduced investment in the Army Tactical Missile System Service Life Extension program by –$600 million to shift resources to the Precision Strike Missile, which will replace the ATACMS round with enhanced performance. Additionally, the Army delayed procurement of the Enhanced Heavy Equipment Transporter (EHET) which means we'll be dependent on less capable heavy equipment movers for a longer period of time. In order to prioritize modernization investments, the Army assumed risk in endstrength by slowing the rate of growth toward our objective force endstrength levels. The Army must grow to both meet current combatant commander demand and resource the new structure required to fight and win in the future.

READINESS CONCERNS

2. Senator INHOFE. General McConville, in the effort to meet NDS requirements, the Army successfully achieved in 2019 one of its stated 2023 readiness objectives by having 66 percent of regular Army BCTs brigade combat teams] ready to "fight tonight," allowing the Army to transition its focus from BCT readiness to "strategic readiness." How does this budget invest in strategic readiness while also maintaining 66 percent of regular Army BCTs and their supporting elements at the right readiness levels?

General MCCONVILLE. In fiscal year 2021, Army will maintain its current tactical readiness levels and seek to improve its strategic readiness. The Army training focus at the tactical level is on building highly trained and cohesive teams that are disciplined and fit. We are increasing our focus on individual and small unit readiness. Home Station Training and Combat Training Center (CTC) rotation levels of effort are consistent with recent years that enabled Army to achieve and maintain readiness goals. The Army fiscal year 2021 budget request supports 24 CTC rotations and home station training IAW Army training strategy. The Army is seeking to improve its global posture at the strategic level by positioning formations and equipment (APS) in key strategic locations to deter adversaries and assure partners; investing in its Organic Industrial Base (OIB); improving mobilization through MFGI investments and exercises; building proficiency through repetition in deploying/redeploying operations with Dynamic Force Employment (DFE) and Emergency Deployment Readiness Exercises (EDREs), sustaining its generating and operating forces; aligning APS & LOGCAP to NDS priorities; and, investing in the industrial base.

MODERNIZATION EFFORTS (FORT SILL FOCUSED)

3. Senator INHOFE. Secretary McCarthy, because the U.S. Army's surface-to-surface fires are currently outranged and outgunned by many similar Russian and Chinese systems, the Long Range Precision Fires (LRPF) Cross Functional Team is working on programs to address these shortcomings. How will the Extended Range Cannon Artillery and the Precision Strike Missile (PrSM) programs help the joint force implement the NDS and regain a comparative advantage over Russian and Chinese competitors?

Secretary MCCARTHY. The Extended Range Cannon Artillery (ERCA) system includes improving the self-propelled howitzer, projectiles, supercharge propellant, and course correcting fuzes for accurate fires at 70KM, almost twice the range of our current howitzers. These improvements will provide the division commander

with a deep fires capability to shape the close fight in large scale combat operations, enabling combined arms overmatch. Fiscal year 2021 is an essential year to order long lead time parts to support final prototype development and building for delivery to the first battalion in fiscal year 2023. ERCA Prototype 0 is assembled and executed a successful live fire demonstration on March 6th, achieving 65KM in range with target hits. We continue efforts to achieve the 70KM range.

The Precision Strike Missile (PrSM) is the Long Range Precision Fires Army modernization priority program to replace the Army Tactical Missile System (ATACMS). PrSM will be fired from existing launcher platforms with greater range, lethality, survivability, and at a lower cost than ATACMS. PrSM will allow the operational force to neutralize enemy integrated air defense systems and long range artillery to enable cross domain maneuver. The accelerated program delivers a base missile with a range greater than 500KM in fiscal year 2023 (compared to the ATAMCS range of 160 KM), followed by technology spirals for emitting multi-domain targets, enhanced lethality, and extended range. PrSM has executed two successful flight tests since December, achieving target hits at 240KM and 180KM; the next flight test is planned for 30 April.

4. Senator INHOFE. Secretary McCarthy, the Army currently lacks a reliable cruise missile defense capability which leaves the joint force vulnerable in some theaters. What is the Army's plan to defend against more advanced threats, such as hypersonic and supersonic cruise missiles, in the future?

Secretary MCCARTHY. The best defense against hypersonic and supersonic cruise missiles is to have robust offensive and defensive capabilities. From an offensive perspective, we are placing significant emphasis and investment into our own hypersonic capability. The current schedule of delivering a road mobile prototype hypersonic battery in fiscal year 2023 remains in place. From a defensive perspective, we must also attack the munition once launched. The Missile Defense Agency is exploring defenses against hypersonic threats, and we are evaluating Patriot against the supersonic cruise missile threats. Supersonic threats are also an Indirect Fire Protection Capability (IFPC) objective requirement, while subsonic remains a threshold requirement.

5. Senator INHOFE. General McConville, the Army is procuring two Iron Dome batteries in fiscal year 2020 as an interim solution for cruise missile defense. What efforts are underway to integrate the batteries into the Air & Missile Defense network and what is the plan for the associated force structure?

General MCCONVILLE. The Iron Dome is a combat proven system and the Army will field two interim, stand alone, batteries. Moving forward, the Army will hold a competition for an enduring solution, which is compatible with Integrated Air and Missile Defense Battle Command System (IBCS), and allows all of industry to participate in a shoot off and best value competition. The Army is also going to a layered defense for air and missile defense. We see in the future the ability to tie every sensor to every shooter—multiple radars tied into the IBCS, which will be able to apply the appropriate shooter as a response based on the threat. That response could be a missile, a kinetic projectile, or high powered microwaves and directed energy systems. Based on the specific solution, the Army will design and develop the appropriate force structure

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QUESTIONS SUBMITTED BY SENATOR ROGER F. WICKER

MODERNIZATION

6. Senator WICKER. Secretary McCarthy, what steps are you taking to produce tangible results that will accelerate or enable greater defensive and offensive capabilities for directed energy weapons in the next 3 to 5 years?

Secretary MCCARTHY. The Army is pursuing a variety of Directed Energy (DE) weapons, including high energy lasers and high power microwaves for maneuver unit and semi-fixed/fixed support. DE provides defensive capability against rocket, artillery, mortar, UAS, and rotary/fixed wing threats. The Army is prototyping a 50kW-class laser for a platoon of Stryker vehicles to be delivered no later than fiscal year 2022 for Maneuver Short Range Air Defense (M-SHORAD) and transition into a program of record. We are prototyping a 300kW-class laser in the new Indirect Fire Protection Capability-High Energy Laser (IFPC-HEL) for fixed and semi-fixed locations. Directed Energy S&T efforts are funded through fiscal year 2022 to inform IFPC-HEL prototyping fielding in fiscal year 2024. The Army is also teaming with USAF for High Power Microwave (HPM) as electronic warfare paired with HEL for semi-fixed /fixed base support with prototyping by fiscal year 2024.

7. Senator WICKER. Secretary McCarthy, a recent study by the Center for Strategic and International Studies (CSIS) titled, "Assessing the Affordability of the Army's Future Vertical Lift (FVL) Portfolio" stated that affordability of the two FVL programs was feasible but would require strict program management and oversite. What is the Army doing to ensure continued affordability of the two programs?

Secretary MCCARTHY. AFC, in consultation with ASA(ALT), are committed to requirements stability and preventing requirements creep. This team approach will identify appropriate trade space to ensure requirements are both achievable and affordable. The Army is conducting "fly before we buy" prototyping efforts such as the successful Joint Multi Role Technology Demonstrator, Future Attack Reconnaissance Aircraft Competitive Prototype, the Future Tactical UAS demonstration, and Air Launched Effects early experimentation and prototyping. All four of these efforts will fly an air vehicle before we go final on requirements to ensure we have effective weapon systems. These efforts reduce risk, promote competition, and produce well informed, realistic, achievable, and affordable requirements. We have also reduced requirements creep by developing and implementing an Army Futures Command (AFC), Commanding General (CG) approved requirements prioritization methodology and scoring forum. This best practice has allowed the AFC CG to see how all in-development and in-progress requirements align to critical Army Senior Leader criteria and guidance. The results of this scoring shape the Army Capabilities Integration and Development System/Army Requirements Oversight Council (AROC) calendar for the Chief of Staff of the Army, Vice Chief of Staff of the Army, and AFC CG AROC decisions.

CYBER

8. Senator WICKER. General McConville, does the consolidation of capabilities under Army Cyber Command (ARCYBER) mean that cyberspace operations will be prioritized over other information capabilities, and if all of the information-related activities are already being utilized by commanders in the field, why consolidate the capabilities in one command?

General MCCONVILLE. No. The Army will deliver trained and ready forces with capabilities and capacity balanced to mission need. The consolidation of mission and capability is going to drive a Total Force for MDO including Information Warfare, of which Cyberspace Operations, Electronic Warfare, along with other capabilities, are subsets. Cyberspace operations and the employment of Cyber Operating Forces will remain a core mission for the command.

INFORMATION WARFARE

9. Senator WICKER. General McConville, do you feel that overtly announcing a move toward information warfare, which you have stated is key in the competition phase prior to conflict, overly militarizes the information element of national power, and does this send a negative signal to adversaries, which will then cause escalation of information warfare against, most-likely, non-military targets in the United States?

General MCCONVILLE. I do not. Russia and China are already contesting international norms and U.S. interests in Cyberspace and the Information Environment. Deliberately leveraging information and aspects of information inherent to military operations in concert with information efforts of other Federal Government departments and agencies adds to the effectiveness of the overall governmental effort. Our adversaries leverage information capabilities against U.S. military and non-military targets to seek advantage over the U.S. or limit our ability to counter their operations. Stating our intent to develop this capability establishes a check on adversaries' bold use of information against military and non-military targets.

STRATEGIC SEALIFT

10. Senator WICKER. Secretary McCarthy and General McConville, the U.S. Government's current approach to strategic sealift has yielded an aging and inactive government fleet that depends on a shrinking pool of merchant mariners and ships that have trouble getting underway. I'm concerned that a resilient maritime logistics strategy doesn't exist. Given that 90 percent of Army and Marine Corps equipment will travel by sea to a major conflict, is there sufficient sealift available now, and for the foreseeable future, to support combatant commander operational plans (OPLANS) per the National Defense Strategy?

Secretary MCCARTHY and General MCCONVILLE. The present assessment is that the current strategic sealift fleet is sufficient to meet the current demand, but by 2024, it will be inadequate without recapitalization efforts. USTRANSCOM and the Navy are using a three-pronged strategy to recapitalize: (1) service life extensions

when cost effective; (2) acquiring used vessels with congressional approval; and (3) building new vessels.

QUESTIONS SUBMITTED BY SENATOR DEB FISCHER

PARTNER TRAINING

11. Senator FISCHER. Secretary McCarthy and General McConville, do you believe that the current mix of armored, infantry, and Stryker brigade combat teams is appropriately balanced between the Active Army and Army National Guard, and are there missions or platforms you believe should be shifted between the Active, Reserve, and Army National Guard to make the total force more aligned with the National Defense Strategy?

Secretary MCCARTHY and General MCCONVILLE. The current mixture of brigade combat teams between the Regular Army and Army National Guard is appropriately balanced to support the National Defense Strategy. When balancing brigade combat teams across components, the Army considers responsiveness to meet Combatant Commander requirements along with Title 10 and Title 32 Defense Support to Civil Authorities.

12. Senator FISCHER. Secretary McCarthy and General McConville, the Army recently announced the deployment of the 1st Security Force Assistance Brigade to Africa, the first such deployment to the continent. National Guard units are similarly conducting partner training in Africa, including units from the Nebraska National Guard partnered with Rwanda through the State Partnership Program. How is the Army working to enhance its partner training capacity to provide a better alternative to similar efforts by Russia and China?

Secretary MCCARTHY and General MCCONVILLE. In Africa, the U.S. Army actively seeks to build partner networks through military and medical exercises, security cooperation, engagements including the African Land Forces Summit, and the State Partnership Program. The National Guard's State Partnership Program includes 14 other African nations partnered with U.S. States in addition to the Nebraska National Guard's partnership with Rwanda. The Army supports six U.S. DOD-directed operations in Africa and is deploying the 1st Security Force Assistance Brigade (SFAB) to assume the train, advise, and assist mission with our partners. The Army is also reviewing an increase in ally and partner Invitational-Professional Military Education (I-PME) participation by 10 percent for fiscal year 2021 to fiscal year 2022, and up to 50 percent over fiscal year 2022to fiscal year 2025, and continues to utilize the National Guard State Partnership Program (SPP) to strengthen relationships and build capacity globally as a means to compete with Russia and China.

MODERNIZATION

13. Senator FISCHER. Secretary McCarthy and General McConville, what are your biggest modernization priorities, and what lessons have you learned from past Army acquisition efforts and from the other services that you are incorporating into your own modernization efforts?

Secretary MCCARTHY and General MCCONVILLE. The Army is 2 years into a major transformation to ensure we are prepared for future conflict—we are finishing what we started. The Army's modernization efforts are a continuation of its fiscal year 2019/fiscal year 2020 efforts. Fiscal year 2021 marks a pivotal year for Army modernization as we have matured our processes and established momentum across all 6 modernization priorities: Long Range Precision Fires, Next Generation Combat Vehicle, Future Vertical Lift, the Network, Air and Missile Defense, and Soldier Lethality. Army modernization is a holistic approach—changing doctrine for how we fight and equipping our formations with the best equipment possible—but also organizing and training the force differently, leading and managing people differently, and ensuring Army facilities and infrastructure support these changes. The establishment of Army Futures Command is enabling the Army to set priorities, efficiently resource, synchronize the execution of modernization efforts, and assess progress set forth by the framework within the published Army Modernization Strategy.

The Army learned many lessons from past acquisition efforts. Three major lessons are: (1) the Army must understand and orient on the future threat; (2) the Army must understand what is technologically feasible for design and materiel solutions before developing a timeline; and (3) the Army must clearly prioritize desired capabilities and avoid requirements creep throughout the acquisition process. Additionally, we learned that joint programs are usually most successful when the requirements from the different services are common (i.e., JLTV)

14. Senator FISCHER. Secretary McCarthy, you were recently quoted saying that, "as long as we can continue to work under these conditions, we can continue to proceed" with the Army's modernization priorities. How much of an impact do you believe COVID–19 will have on the readiness and modernization of the Army?

Secretary MCCARTHY. It is too early to determine the full extent of the impact COVID–19 will have on readiness and modernization, though we expect COVID–19 will impact several, if not many, programs. We are working with our industrial base partners to determine their ability to perform within the current COVID–19 environment, and we are assessing effects on the Army's ability to test, field, and train on systems. Whenever possible, we are seeking solutions to mitigate effects to preserve the readiness of the force. The health and safety of the workforce and soldiers is the Army's paramount concern.

15. Senator FISCHER. General McConville, you were recently quoted saying that some high-priority tests will continue while "other ones will slow down." How are the decisions being made on which programs will proceed apace and which ones will be postponed amidst the pandemic?

General MCCONVILLE. The Army is closely monitoring the pandemic to ensure the health and well-being of our soldiers, civilians, families, and their communities. Army Futures Command is coordinating with ASA(ALT) and Army Test and Evaluation Command to determine which tests are most critical to meet current readiness requirements and critical developmental milestones. We are also working closely with FORSCOM to ensure necessary Soldier involvement in these events. Our current assessment, which will change as conditions change, is that 9 events will be canceled, 65 postponed, and 42 will continue as scheduled. In all cases, the decision to continue or delay an event is made by commanders and senior leaders at the 4-star or Assistant Secretary-level after considering the risk as part of a cost-benefit analysis.

QUESTIONS SUBMITTED BY SENATOR TOM COTTON

CORONAVIRUS PHASE IV

16. Senator COTTON. Secretary McCarthy, does coronavirus make your Unfunded Priorities List (UPL) look any different, and where can we target more procurement dollars to best support both the National Defense Strategy and sustainment/recovery of the defense industrial base?

Secretary MCCARTHY. It is too early to tell the long term impacts of COVID–19 and any adjustments that would need to be made to our UFR list. The Commands and the Army Staff are conducting a review and are updating the requirements as necessary.

CORONAVIRUS AND DEFENDER-EUROPE 20

17. Senator COTTON. General McConville, coronavirus diminished DEFENDER-Europe 20—how can you backfill the training and deterrence value of that exercise, and what do you need from us to do it?

General MCCONVILLE. The purpose of DEFENDER-Europe 20 was to build strategic readiness by deploying a combat credible force to Europe in support of NATO and the U.S. National Defense Strategy. The exercise was modified in response to COVID–19, but the Army was still able to exercise its ability to coordinate large-scale movements with Allies and partners. Since January, the Army deployed approximately 6,000 soldiers from the United States to Europe including a division headquarters and an armored brigade combat team. It has moved approximately 9,000 vehicles and pieces of equipment from Army Prepositioned Stocks and approximately 3,000 pieces of equipment via sea from the United States. In coordination with Allies and partners, it also completed movement of soldiers and equipment from multiple ports to training areas in Germany and Poland. The Army plans to continue its planned DEFENDER series exercises in Europe and the Pacific during fiscal year 2021 and beyond.

COUNTER UNMANNED AERIAL SYSTEMS (CUAS)

18. Senator COTTON. Secretary McCarthy, the Department of Defense has spent millions in research, development, test & engineering (RDT&E) in search of solutions that already exist in the private sector. Have you explored commercial, off-the-shelf capabilities like kinetic intercept for CUAS, and will you commit to using a commercial solution if an effective one exists for CUAS?

Secretary MCCARTHY. Yes, we have and will continue to explore both commercial off the shelf and the development of systems based on new or emerging technologies.

Filling a capability gap is a process. We first look at if there are Tactics, Techniques, and Procedures that can close the gap, and if none are adequate to fill the gap, we look to commercial off-the-shelf materiel solutions. If no commercial solution can address the gaps, we look to materiel solutions from other government or non-developmental items that can be modified to meet our needs. Our last resort is initiating a full development program. In that vein, we have fielded commercially viable capabilities. The Drone Defender; Mobile Low, Slow Unmanned Aircraft Integrated Defense System (MLIDS); and Coyote systems are all examples of urgently fielded commercial CUAS systems.

OPTIONALLY MANNED FIGHTING VEHICLE (OMFV)

19. Senator COTTON. General McConville, I understand the Army made a difficult decision to pause OMFV, and that you don't want adherence to a fielding date to drive poor decisions in development, as well as the need for industry to have inputs into what timeline is possible, but when do your troops need this very necessary capability?

General MCCONVILLE. The bottom line is that our troops need this as quickly as we can deliver the transformational capabilities they deserve. The Army remains committed to OMFV as Next Generation Combat Vehicles are our second highest modernization priority. We will field the Bradley replacement to support a Multi-Domain Operationally Ready force. Fortunately, we learned early in the process of developing the OMFV that industry could not deliver the requirements needed in the time we wanted. AFC published broad vehicle characteristics at industry's request, to allow for industry innovation and trade-space. These characteristics will be refined through a series of industry engagements, digital design competitions, and soldier touch points to inform and sharpen the OMFV prototypes for testing, before we establish the final vehicle requirements. This approach will enable us to explore the solution space in an environment of rapid and inexpensive learning, leading to requirements verification through physical prototypes, Soldier input, and testing.

LONG-RANGE PRECISION FIRES

20. Senator COTTON. Secretary McCarthy and General McConville, your opening statement highlights funding requests and capabilities for long-range precision fires. What is your vision for their integration into units inside and outside of Anti-Access/Area Denial (A2/AD), as well as where you expect them to be postured in peacetime to support strategic deterrence?

Secretary MCCARTHY and General MCCONVILLE. We see these long range precision fires layered from the tactical to strategic level, and postured both CONUS and OCONUS to provide adequate response and deterrence value. Extended Range Cannon Artillery (ERCA) will provide the division commander with a deep fires capability to shape the close fight, while the Precision Strike Missile (PrSM) allows the operational force to neutralize enemy integrated air defense systems and long range artillery to enable cross domain maneuver, and the Long Range Hypersonic Weapon (LRHW) allows us to penetrate across the world in minutes instead of hours. These capabilities will be in traditional Army formations as well as Multi-Domain Task Forces that will have long range precision effects that can operate below the level of armed conflict, and long range precision fires for use during armed conflict.

QUESTIONS SUBMITTED BY SENATOR MIKE ROUNDS

COVID–19 AND U.S. LEADERSHIP

21. Senator ROUNDS. Secretary McCarthy and General McConville, in your opening statement, you said that the "Army must continue to compete for and retain allies and partners, as our adversaries will attempt to do the same." The COVID–19 response requires almost unthinkable resources and a supreme commitment to the American people. However, the Army still must execute its many missions, even while supporting our citizens at home and expending great effort to protect our soldiers wherever they serve.

I was concerned to see a Reuters story this week that stated the Russian military will send medical support to Italy and am curious to know what efforts the U.S. Army has taken—or is planning to take—to help our allies, even while the overwhelming majority of this government provides for the American people at home.

Secretary MCCARTHY and General MCCONVILLE. We continue to provide an assessment to the SECDEF of available assets and capabilities that may be available to support our domestic or overseas responses. The commanders of USFK,

USAREUR and USARAF have all demonstrated tremendous partnership in sharing information and force protections techniques with their host nations to control the spread of the virus within their areas of operations. We are in contact with our allied counterparts to discuss a coordinated response.

STRATEGIC READINESS

22. Senator ROUNDS. Secretary McCarthy and General McConville, I had a very enjoyable and illuminating meeting with Lieutenant General Christopher Cavoli, USA, Commanding General, U.S. Army Europe, on March 4. The DEFENDER-Europe 20 exercise, has been greatly curtailed, but one of its primary objectives is to demonstrate and learn lessons about the Army's strategic readiness to deploy capabilities, despite the presence of contested domains, and provide these capabilities to the right place at the right time. Can you discuss your assessment of the Army's current strategic readiness posture—and describe to the American people what is needed, and why it is needed, as the United States engages in a great power competition that characterizes the current and future operating environments?

Secretary MCCARTHY and General MCCONVILLE. Army strategic readiness incorporates assessments across manning, equipping, sustaining, training, installations, and capacity and capability to meet the requirements of the NDS. Army strategic readiness begins with a responsive force posture, the ability to mobilize and project power into contested environments, and the ability to sustain forces in large-scale combat operations. The Army's ability to continually generate and project ready formations (at scale) for the combatant commander is critical to the defense of our Nation and our interests worldwide. Recent events in the Middle East demonstrated how necessary strategic readiness is to allow the Army to be globally responsive with ready units. As the United States engages in great power competition, the Army must assure current and future readiness by: (1) balancing current global demand; (2) preparing forces for potential conflict; and, (3) modernizing the force to respond to future adversaries.

SECRETARY OF THE ARMY'S CIVIL WORKS RESPONSIBILITIES

23. Senator ROUNDS. Secretary McCarthy, I want to thank you for the good job the Corps of Engineers has done managing the Missouri River, over the last year, under some very difficult conditions. I commend the outgoing Chief of Engineers, Lieutenant General Todd Semonite, for his energetic leadership across the Corps' many mission sets—including the current COVID–19 response, and Major General Scott Spellmon, for leading the Civil Works mission. Nevertheless, I would like your commitment to continue robust oversight of the Corps of Engineers—and to assuring that major progress on the snowpack monitoring system deployment is made this year. We are a nation facing many challenges right now, but a large portion of the safety, security, and economic well-being of the Missouri River basin states depends on you executing your Civil Works responsibilities in an exemplary manner. In addition to your commitment, I would appreciate it if you could describe the importance of this mission to your overall responsibilities as Secretary of the Army.

Secretary MCCARTHY. The U.S. Army Corps of Engineers is committed to executing the snowpack monitoring efforts in the Upper Missouri River Basin. The Corps is working closely with several State partners, including Montana, Wyoming, and South Dakota, on initial equipment purchases. The Corps is also working closely with a larger five-State region, including Montana, Wyoming, North Dakota, South Dakota, and Nebraska, to identify existing sites in the Mesonet environmental monitoring network for initial retrofits. Enhancing the Corps' and State partners' understanding of the extent and magnitude of the snowpack is important to safety, livelihood, and economic well-being of this region, and is a critical mission for the Corps and the Army Civil Works program.

TITLE 32 AND THE COVID–19 RESPONSE

24. Senator ROUNDS. Secretary McCarthy and General McConville, it is vital during this time of the COVID–19 crisis that there be a great deal of uniformity in how our National Guard is activated across the Nation. There have been calls by numerous Governors advocating that these activations be made in a 502f status, so the activation is funded with Federal dollars, with the Governors retaining command and control. Our States do not possess the resources to address this unimaginable crisis without that kind of support from the Federal Government. Can you describe your perspective on this matter and how you will approach advising the President of the United States?

Secretary MCCARTHY and General MCCONVILLE. The Army National Guard (ARNG) has tremendous capabilities to support their states and Governors during

crises. 32 USC 502(f) allows Governors to employ the ARNG with Federal funding. This is important as many states do not have the resources to fully mobilize their National Guard forces.

QUESTIONS SUBMITTED BY SENATOR JONI ERNST

ARMY INTEGRATED VISUAL AUGMENTATION SYSTEM

25. Senator ERNST. Secretary McCarthy and General McConville, the Army is planning to invest $906 million in the development and fielding of the Integrated Visual Augmentation System (IVAS) giving our soldiers tactical advantage over our adversaries on the battlefield and establishing deterrence through superior technology. What is your assessment of the progress of the program, and is it meeting your requirements?

Secretary MCCARTHY and General MCCONVILLE. The IVAS program is progressing exceptionally well. The partnership between the Army and Microsoft, and the speed with which engineers make refinement based on soldier feedback, has allowed us to take the IVAS program from Middle Tier Acquisition/Rapid Prototyping in November 2018 to delivering four capability sets within the next 27 months.

26. Senator ERNST. General McConville, when will our soldiers start to receive and begin large-scale operational testing of IVAS?

General MCCONVILLE. The Army has scheduled Touch Points to provide an opportunity for soldiers to use the equipment in real world training and provide feedback to the engineers and developers. The IVAS Soldier Touch Point 3 is scheduled for fiscal year 2020 and Soldier Touch Point 4 is scheduled for the spring fiscal year 2021. We will begin fielding IVAS to units in fiscal year 2021 to enable large-scale operational testing. Temporary closure of engineering and production facilities for the prototype systems, due to local responses to COVID–19, may cause delays. The initial fielding dates may shift from fiscal year 2021 to fiscal year 2022. We cannot assess the full impact until we know when the facilities will reopen.

MODERNIZATION

27. Senator ERNST. Secretary McCarthy and General McConville, China and Russia are reaching parity with us in areas like field artillery and air defense artillery. I commend Futures Command for looking at ways to modernize, but want to emphasize the need to ensure our current systems are maintained and ready to support the warfighter. For example, some components of our field artillery systems—such as the breech on a howitzer—are legacy systems. How are you ensuring the required hardware and software updates, availability of parts, and ease of maintenance as you move forward with the artillery modernization process?

Secretary MCCARTHY and General MCCONVILLE. We will continue investments in upgrading and sustaining key systems in the near term—such as our in howitzer fleet—to fill gaps until the technology is ready for our next generation systems. We made a conscious decision as part of the Paladin Integrated Management program to first replace the chassis to allow the system to keep pace with the Bradley and Abrams tank, without changing the turret, gun or breach. We are pursuing two lines of effort to further modernize the howitzer. The first is extending the range thru upgrading propellant, such as the Modular Artillery Charge System (MACS) Charge 5, which we have found adversely affects the reliability of the Paladin breech. We have initiated upgrades to the currently fielded Paladin breeches that are in the A6 fleet and testing shows that the capability addresses the issues caused by the MACS Charge 5, with excellent results. In concert with these fixes, we are stocking up on breech parts at the unit level to minimize down-time for readily replaceable components. The second line of effort involves upgrades to the turret gun and breech via the Extended Range Cannon Artillery (ERCA) program. The combination of ERCA and upgrades to the breech will go far in establishing higher reliability as well as increasing standoff for our artillery systems.

28. Senator ERNST. Secretary McCarthy and General McConville, new systems like the Paladin Integrated Management (PIM) program have switched from a traditional hydraulic system to electric/high voltage. This requires highly trained contractors to make repairs on high level maintenance, not the typical soldier. How will you ensure the timely deployability and maintenance of modern systems writ-large when our warfighters are down range?

Secretary MCCARTHY and General MCCONVILLE. The Army fields most major systems with validated maintenance manuals and appropriate levels of maintenance (usually field level and depot level). Soldiers performing field level maintenance receive necessary training for the maintenance tasks they can perform at the unit

level, frequently with assistance from Field Service Representatives. In cases where a capability is urgently fielded and organic maintenance expertise is not yet in place, the Army often employs Contractor Logistic Support.

While the M109A7 has moved from a hydraulically operated turret to an electronically operated one, the performance of our soldier operators and maintainers has not diminished. Our soldiers who operate the howitzer continue to excel and exceed standards for their performance with the system. Maintainers have not missed a beat in maintaining the system, on the rare occasions when maintenance is required. Universally, comments from the 3 ABCTs fielded to date have shown nothing but praise for the electronic components of the howitzer.

HYPERSONIC TESTING

29. Senator ERNST. Secretary McCarthy and General McConville, on March 19, DOD announced that the Army and Navy conducted a joint test of the Common-Hypersonic Glide Body (C-HGB) at the Pacific Missile Range Facility in Kauai, Hawaii. The successful test marks a significant progress in the development of hypersonic technology and a step forward in the Army achieving long range precision fires. Can you provide an update on the Army's development on hypersonics, specifically on development timelines and key testing milestones?

Secretary MCCARTHY and General MCCONVILLE. The Army is on track to deliver a road mobile prototype hypersonic battery in fiscal year 2023 as part of the Joint Service Conventional Prompt Strike program. The fiscal year 2021 budget request fully funds the Long Range Hypersonic Weapon effort and the long-lead items necessary for the prototype and all associated flight tests, as well as initial unit fielding and training.

QUESTIONS SUBMITTED BY SENATOR THOM TILLIS

FORCE MODERNIZATION AND END STRENGTH

30. Senator TILLIS. Secretary McCarthy and General McConville, the Marine Corps has seemingly continued business as usual during this time (COVID–19 Containment Phase). The Marine Corps Commandant announced his plans to move forward with force modernization by cutting infantry battalions, downsizing artillery batteries, and divesting of tanks, which inevitably shifts to the Army. Is the Army prepared or positioned to pick up those ground force capability gaps in its modernized force layout and how will this impact recruitment goals or demands for soldiers to fill ground combat arms military occupational specialties (MOSs) in the Army and the Army's end strength needs?

Secretary MCCARTHY and General MCCONVILLE. The Army designs its force size, structure, and capabilities to meet the requirements asked of us by the NDS, the CJCS, and Combatant Commanders. The Army will need to conduct a detailed assessment of the Marine Corps plan to determine capability and capacity mix across the services. The outcome of that assessment and associated decisions would inform possible changes to our recruitment goals and end-strength requirements.

STRATEGIC POWER PROJECTION AND READINESS

31. Senator TILLIS. Secretary McCarthy and General McConville, at Fort Bragg, a recent Army audit found its airfields as being the poorest infrastructure in the Army. These infrastructures serve as primary training air fields for USASOC [United States Army Special Operations Command], JSOC [Joint Special Operations Command], and others, including the Immediate Response Force. Is the Army adequately funding power projection and installation readiness, which also extends to rail, stationing requirements, and facility issues that undermine training and readiness?

Secretary MCCARTHY and General MCCONVILLE. Our fiscal year 2021 budget submission addresses several strategic readiness requirements. The budget helps the Army increase Army power projection capabilities to support combatant commander and Dynamic Force Employment requirements. The Army has also designated 14x installations as Secondary Contingent Deployment Locations and 4x Mobilization Force Generation Installations being utilized; and we are working with the National Guard Bureau to improve states' pre-mobilization and unit movement support capabilities.

Specifically, at Fort Bragg, since 2011 the Army has invested over $115 million to repair runways, aprons and airfield lighting systems at Pope Army Airfield (PAAF). In fiscal year 2020 we have an approved project of $25 million for airfield lighting repair and in the fiscal year 2021 budget, we plan to spend $65 million to

repair the PAAF runway and Taxiways. Army Materiel Command is currently reviewing the full scope of additional requirements in support of this critical Power Projection platform as part of our comprehensive Facilities Investment Strategy.

PERSONNEL AND FAMILY READINESS

32. Senator TILLIS. Secretary McCarthy and General McConville, last month, in previous posture hearings, I announced my plans to show up unannounced at military installations for a progress report on PPV [public-private venture] housing repairs and outstanding issues. Have you personally visited PPV housing units on any Army installation this year and can I get your help in ensuring Army families have quality/safe housing and not subjected to unhealthy living conditions?

Secretary MCCARTHY and General MCCONVILLE. We have personally visited housing on Ft Bragg, Ft Carson, Fort Stewart, Fort Campbell, Fort Meade, Fort Hood, Fort Bliss, Fort Drum, Ft Belvoir and Hawaii, and you have our commitment that we will do everything within our power to ensure our People have safe, quality housing. The Army has implemented several fiscal year 2020 NDAA provisions and all require close coordination with privatized companies. The Army has implemented the requirement for a reliable, accessible online work order system; timelines for repair; and incentive fee policies; and are developing action plans for the remainder. The Army is also incorporating the fiscal year 2020 NDAA provisions into our Army Housing Campaign Plan to establish priorities for implementation and oversight.

DOD CORONAVIRUS TASK FORCE

33. Senator TILLIS. Secretary McCarthy, how is the DOD Coronavirus Taskforce taking steps to disseminate information through all service branches down to the unit level, and are you encountering any difficulties in enforcing consistency in responding to the COVID–19 threat?

Secretary MCCARTHY. Senior leaders across the Department of Defense communicate multiple times a day to synchronize our response to COVID–19. Throughout the Army, we have multiple senior leader touch points and are publishing orders from HQDA down to the unit level. A key factor in mitigating the spread of the virus is ensuring personnel have the most up-to-date information on appropriate measures to prevent the further spread of COVID–19. The Department, Commanders, and leaders at all levels are taking positive action to educate the force and implement appropriate force protection measures.

QUESTIONS SUBMITTED BY SENATORS TILLIS AND MCSALLY

34. Senators TILLIS and MCSALLY. Secretary McCarthy and General McConville, COVID–19 is a threat to the well-being of our troops and their families. During the March 24, 2020 DOD COVID–19 virtual town hall, it was recommended that servicemembers in the middle of a permanent change of duty station (PCS) should request their commanders put them into an awaiting transportation status, so they receive per diem and preserve their TLA/TLE [temporary lodging allowance/temporary lodging expense] entitlement. How are you handling the "stop move order" for all non-essential travel to limit the spread of the virus, and what measures are being taken to provide for servicemembers and their families caught up in the PCS process to avoid financial hardships?

Secretary MCCARTHY and General MCCONVILLE. In response to the challenges soldiers and their families are facing during the stop movement order, the Army is adhering to DOD's guidance for non-essential travel.

Additionally, the Army, with DOD's support, has implemented a series of new entitlements. These new authorities are aimed at minimizing, to the greatest extent possible, the financial impacts of this unprecedented situation. These include Hardship Duty Pay for Restriction of Movement, (HDP-ROM), Isolation Allowance, temporary duty status, advanced PCS allowances, and Army Emergency Relief (AER) loans. Further, to provide soldiers the utmost support and flexibility, if a soldier is scheduled to PCS during this time and experiences hardship due to COVID19, they can request an extension—for up to 1 year—at their current duty station.

QUESTIONS SUBMITTED BY SENATOR DAN SULLIVAN

THE FUTURE ARMY—RECRUITING

35. Senator SULLIVAN. Secretary McCarthy and General McConville, in your joint testimony you mention "the Army has overhauled its Recruiting and Marketing enterprise, exceeding revised end strength goals in fiscal year 2019, while simultaneously retaining quality soldiers." How is COVID–19 affecting the current recruiting efforts and what specific precautions do you have in place to protect recruiters as well as applicants?

Secretary MCCARTHY and General MCCONVILLE. U.S. Army Recruiting Command is taking precautions to protect the health of the force and minimize exposure to coronavirus disease. As of March 18th, all recruiting stations within U.S. Army Recruiting Command are shifting to mobile and virtual Operations with the public to limit in-person contacts. These precautions allow our recruiting force the ability to continue to make solid contacts with those interested in joining the Army while protecting both the recruiters and the applicants. Recruiters remain accessible to those interested in a career with the U.S. Army by communicating through text, phone calls, direct messages, or video chat rather than face-to-face. Contracts/leads have decreased, but we do not attribute this to the shift to virtual recruiting. Many of our leads are generated from Recruiters attending events and larger gatherings and conducting high school visits. Due to COVID 19, all events have been canceled and we no longer have access to schools due to closures. Contract/leads from virtual recruiting, however, have increased.

Prior to the coronavirus pandemic, USAREC was on pace to achieve its fiscal year 2020 accessions mission including a Delayed Entry Pool for fiscal year 2021 of 13,500. In an effort to protect the recruiting force and the Army's training base, USAREC has a goal to ship to half of the Army's training capacity. The determination of which future soldier will ship is dependent on the level of risk in the area in which each future soldier resides. As more and more areas become restricted, USAREC continues to analyze each individual situation in an effort to determine a safe to ship status. All Future Soldiers are being prescreened at 15 days, 72 hours and 24 hours prior to shipment for symptoms and potential exposure to COVID–19 to mitigate the spread of the disease. Additionally, they are screened again upon arrival at the Military Entrance Processing Stations (MEPS). Depending on the level of risk in certain areas of country, recruiters are working with the Future Soldiers to either complete all necessary steps and MEPS processing so the Future Soldier can ship to basic training or the recruiter is working with the Future Soldier to reschedule them to ship at a later date. We are shipping from 218 stations.

USAREC does not ship a certain number each month. Recruiting ebbs and flows based on the time of year. We typically see our highest number of shippers in June, July, and August, which have not yet been impacted by COVID 19. Prior to COVID 19, USAREC was on track to ship 5,897 in March. We actually shipped 5,157. In order to minimize risk and exposure, our goal for April and May is to ship to half of the training capacity's base.

ARMY FORCE POSTURE/STRUCTURE

36. Senator SULLIVAN. Secretary McCarthy and General McConville, to address potential great power threats, what types of force structure(s) are required for the Army to deter and, if necessary, defeat a near-peer competitor like Russia and how is the Army changing its force posture to better support United States Indo-Pacific Command's (USINDOPACOM) efforts to compete with an increasingly aggressive and modernized Chinese military and how are these two efforts complementary and how are they different?

Secretary MCCARTHY and General MCCONVILLE. The Army will calibrate its force posture, develop new organizations, and field new capabilities to provide the necessary support to USINDOPACOM in order to deter competitors in the region.

FORT WAINWRIGHT SUICIDE RESPONSE

37. Senator SULLIVAN. Secretary McCarthy and General McConville, as you know Fort Wainwright is located in Fairbanks, Alaska and has experienced a concerning number of suicides over the last 18 months. What specific initiatives and projects have you taken this year and in coming years to enhance the morale, welfare, and recreation of soldiers stationed along the Arctic's front lines, especially at Fort Wainwright and Joint Base Elmendorf-Richardson? Please provide separately to my office the specifics for each initiative, the schedule for delivery, and the anticipated impact or benefit on morale, welfare, and recreation of soldiers.

Secretary MCCARTHY and General MCCONVILLE. The Army established a Quality of Life Task Force to coordinate and synchronize the development and implementation of policies/projects to enhance the quality of life of our soldiers and families. Specific to Alaska, we have established an intensive outpatient behavioral health program, approved Remote and Austere Conditions Assignment Incentive Pay (RAC-AIP), improved transportation and shuttle services, established more predictable training schedules, improved junior leader development on the risk reduction tools and engaging behavior skills training, and refreshed MWR facilities. We are also taking actions to increase effective command messaging, improve barracks living conditions, increase indoor recreational facilities for soldiers and families, and improve the dining facilities (hours, quality of food). As circumstances permit, I am prepared to brief you on specifics regarding scheduled delivery of each initiative.

LONG-RANGE PRECISION FIRE TESTING

38. Senator SULLIVAN. Secretary McCarthy and General McConville, as technology for long-range precision fire weaponry increases, the size of test ranges will also need to increase. How long do you think it will be until the current Army long-range precision fire ranges are outpaced by the range requirements of the weaponry being tested and to what extent are you considering JPARC-with it over 1 million cubic miles of training space—as a potential testing site for long-range precision fire weapons, to include hypersonics? Please elaborate.

Secretary MCCARTHY and General MCCONVILLE. The Army uses the Pacific Missile Range Facility in Hawaii and the Reagan Test Site in the Republic of the Marshall Islands for initial testing of developmental capabilities. Test demand at some point will exceed the capacity of these two ranges to handle the workload which will require additional ranges to support this mission. The Defense Test Resource Management Center is conducting a study to determine alternate options for all the Services including JPARC

MULTI-DOMAIN TASK FORCE (MDTF)

39. Senator SULLIVAN. Secretary McCarthy and General McConville, with the world-class training opportunities offered by the Joint Pacific Alaska Range Complex (JPARC) and the strategic platform offered for expeditionary forces such as the 4th Brigade Combat Team 25th infantry in Alaska, would you say that Alaska is a prime candidate for the stand-up of the U.S. Army's third Multi Domain Task Force? Why or why not? Please expand.

Secretary MCCARTHY and General MCCONVILLE. The Army is analyzing potential locations across the INDOPACOM Area of Responsibility to station the third Multi Domain Task Force (MDTF) in support of INDOPACOM and USARPAC operational requirements. MDTF #3 will activate in 2022 and will serve as the second MDTF in support of INDOPACOM.

QUESTIONS SUBMITTED BY SENATOR DAVID PERDUE

SQUAD X ROBOTICS—FORT BENNING

40. Senator PERDUE. General McConville and Secretary McCarthy, since 2018, the U.S. Army and Marine Corps have worked with industry to enhance unit interoperability with unmanned systems and artificial intelligence (AI) through Squad X experiments, allowing Army and Marine Corps squad units to better utilize the capabilities of unmanned aerial systems (UAS) and unmanned ground vehicles (UGV) to track and engage hostile forces. While Squad X experiments have shown remarkable progress in developing these capabilities, monthly, large-scale experiments incorporating Army and Marine Corps leadership are necessary to ultimately field these capabilities on the battlefield. Collocating the unmatched resources and capabilities of the Army's Maneuver Center of Excellence with these squad-level robotics experiments will provide a long-term asymmetrical advantage for our warfighters and allow for the rapid build-test-build of AI capabilities that will greatly enhance small unit lethality. Additionally, overcoming advances our potential adversaries have made in their own squad-level robotics and AI development is crucial, and the Maneuver Center of Excellence is uniquely suited as an ideal location to develop and integrate the future of infantry squad-level robotics and AI capabilities. What role do the Squad X experiments play in increasing the lethality, maneuverability, and survivability of the squad unit, and how could collocating industry innovators with the warfighter at the Maneuver Center of Excellence best enable the future development of AI-supported robotics for Army squad units?

Secretary MCCARTHY and General MCCONVILLE. The Army is aggressively pursuing manned-unmanned teaming and artificial intelligence (AI) through a number of promising programs and experiments. These programs and experiments link the Army to academic and industry leaders across America to capitalize on best-of-breed innovation in those fields. Examples include the Army AI Task Force (TF) and National Robotics Engineering Center at Carnegie Mellon University; Massachusetts Institute of Technology; and the University of Texas. Experiments like Squad X enable capability developers and Soldiers to explore new solutions in four key areas: precision engagement; non-kinetic engagement; squad sensing and threat detection; and squad autonomy. Co-location of industry and academic innovators with warfighters can help accelerate the development of operationally relevant solutions to soldiers and units.

ADVANCED BATTLE MANAGEMENT SYSTEM

41. Senator PERDUE. General McConville, as you know, the new Advanced Battle Management System (ABMS) conducted its first demonstration of capabilities in December, and the system is scheduled to hold another demonstration in June. You recently called ABMS "Air Centric" and not a universal solution to the problem of sharing data between platforms, units, and services. Additionally, Lieutenant General Eric Wesley, the Chief of the Army's Futures and Concepts Center, recently said, "ABMS cannot be the sole solution, because it doesn't account for, in some cases, the scale or the unique requirements of all the other services." You have also noted that waiting for a future Joint All-Domain Command & Control (JADC2) system cannot mean setting aside current systems completely. How can upcoming ABMS field demonstrations address questions of scalability and the Army's unique needs for such a network that you and other senior Army leaders have voiced?

General MCCONVILLE. The goal is to allow us to see, understand, and act faster than our adversaries and to leverage the rest of the Joint Force to achieve overmatch. You will see a continuous series of experiments culminating in annual demonstrations to iterate, learn, and improve upon the previous year's outcome. Joint All-Domain Command & Control (JADC2) is an effort—actually a growing commitment—by the Joint community to develop a 21st Century command and control capability that optimizes the contributions of the elements of the Joint Force, as well as those of our multinational partners. We are working closely with our sister Services and the Joint Staff to identify and achieve its full potential.

JOINT SURVEILLANCE AND TARGET ATTACK RADAR SYSTEM (JSTARS)

42. Senator PERDUE. General McConville, JSTARS aircraft continue to be active in executing the National Defense Strategy around the world. JSTARS aircraft were deployed for 18 straight years in the United States Central Command (USCENTCOM) area of responsibility (AOR) in support of overseas contingency operations. Following an increase in tensions with Iran in January, JSTARS aircraft returned to the USCENTCOM AOR. A JSTARS unit manned by the 116th Air Control Wing, based out of Robins Air Force Base, also forward-deployed to Germany this past fall. How does the forward deployment of JSTARS support Army readiness and lethality in response to regional and global threats?

General MCCONVILLE. The Army utilizes a wide range of Ground Moving Target Indicator (GMTI)/Synthetic Aperture RADAR (SAR) collection platforms and sensors to determine patterns of life, perform intelligence preparation of the battlefield, define the operational environment, and evaluate the threats in support of ground forces. The specific platform and sensor tasked depends on the mission, terrain, weather, region, and factors such as platform/sensor specifications and the Joint Commander's priorities. The combatant commanders' ability to access GMTI capability is integral to react to a dynamic and changing operating environment. This capability to collect GMTI data deep into enemy territory provides collection to support the combatant commanders' Priority Intelligence Requirements (PIRs).

DEMOLITION OF OLD MARTIN ARMY COMMUNITY HOSPITAL

43. Senator PERDUE. Secretary McCarthy, the old Martin Community Hospital (MACH) and associated facilities were replaced with a new hospital in 2014. In fiscal year 2015, Fort Benning included the old MACH facilities in their project for Army Installation Command's (IMCOM's) Facility Reduction Program (FRP). However, funding was redirected from the FRP for other Army priorities, and the old MACH has yet to be demolished. How would including the old MACH in the FRP allow for the most efficient use of Army resources while also providing better service to the soldiers and community at Fort Benning, and what resources and authorities

does the Army need to complete demolition of the hospital and recapitalize the surrounding land for the base's use?

Secretary MCCARTHY. Removal of the old MACH would clear a prime location that lies in the heart of the community hub of Fort Benning between the new hospital and the Commissary/PX/Dental Clinic. This location was identified in the garrison's master plan as the site of a transportation center that would link traffic and commuters from off post with an internal transportation system to circulate in the immediate vicinity as well as links to the primary cantonment areas. This hub would facilitate carpooling and relieve crowded traffic conditions along Marne Rd and across the entire Garrison. Once the old MACH is removed, the bulk of the work required would be ground work and paving. The Army has all the authorities/clearances needed to demolish the old MACH. The rough order of magnitude for demolition is $14 million to $20 million.

PORT OF SAVANNAH

44. Senator PERDUE. General McConville, the U.S. Department of Transportation recently announced the awarding of an additional $34.6 million grant for critical infrastructure improvements at the Port of Savannah, building on the President's budget request of $93.6 million in Federal funding in support of the Savannah Harbor Expansion Project. The Port of Savannah is the third largest container port in North America and is a strategic seaport within the National Port Readiness Network. Your posture statement cites our Nation's ports as Strategic Power Projection platforms that are key components in maintaining the Army's strategic readiness. To what extent does the expansion of major commercial ports like the Port of Savannah improve the Army's readiness, and support the Army's mission, by quickly transporting large U.S. troop formations in times of war and national emergency?

General MCCONVILLE. The ability to project the force rapidly and at scale and sustain the force during conflicts are key measures of our strategic readiness. Sufficient ports for national defense enable the Army's ability to deploy in time to meet combatant commander requirements. I understand the Savannah Harbor Expansion Project will increase the shipping channel depth to accommodate the large container vessels transiting the Panama Canal. DOD will continue to rely on the Large, Medium Speed, Roll-on/Roll-off vessels from the U.S. Navy's Military Sealift Command and Fast Sealift Ship vessels from the Maritime Administration's Reserve Fleet. The current channel depth is sufficient for these vessels. The Army is very closely linked with USTRANSCOM and their periodic assessments of the existing Strategic Seaports, and their current assessment is that we have sufficient seaport capacity on each coast (East/West/Gulf) to meet the Army's rapid deployment needs

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QUESTIONS SUBMITTED BY SENATOR MARTHA MCSALLY

COVID–19

45. Senator MCSALLY. General McConville, given the Army's mission to organize, train, and equip soldiers, what efforts is the service taking to ensure it completes this vital mission while simultaneously working to combat the spread of COVID–19 within its ranks and do you foresee any impacts to readiness as a result of efforts to combat COVID–19 within the force?

General MCCONVILLE. It is too early to measure any significant impact to readiness, but the longer the pandemic lasts, the greater the possibility there will be a degradation in readiness. In an effort to protect the force, we have migrated to virtual recruiting efforts to sustain the Army's end-strength. Although modified for health protection measures, we are continuing initial entry training, and Commanders at all levels are assessing their local conditions and modifying training to minimize risk to our force while maximizing our readiness.

FAMILY READINESS—CHILD DEVELOPMENT CENTERS

46. Senator MCSALLY. Secretary McCarthy and General McConville, I appreciate the value you placed on people being the greatest strength of the U.S. Army. I agree with the Army People Strategy that the "People First" philosophy is critical when assessing readiness. In your statement, you assessed 5 Quality of Life priorities which included improving and adequately resourcing Child and Youth Services. When looking at this particular priority and family readiness, what was the process for assessing Child Development Centers (CDCs), specifically, how did you assess the current conditions or maintenance needs of each CDC and how did you assess the capability of the CDC to meet the demands and readiness needs of each community?

Secretary MCCARTHY and General MCCONVILLE. The quality of life for our soldiers, their families, and our civilian workforce is of utmost importance. Child and Youth Services, which incorporates our CDCs, is one of the five pillars of our Quality of Life campaign plan. As such, I'm prioritizing funding for our CDCs over the next 5 years. GEN Perna and Army Material Command hosted a Facility Investment Strategy Wargame in January to assess the condition of every Army facility, to include all 184 of our CDCs. We are now prioritizing these CDCs for renovation and increased maintenance (if needed). We've also identified those locations that need new CDC facilities due to deterioration or increased soldier and family demand. AMC is developing a plan to fix all of our CDC challenges over the next 10 years; we look forward to presenting that plan to Congress during upcoming sessions.

GREAT POWER COMPETITION

47. Senator MCSALLY. Secretary McCarthy and General McConville, you mention deterrence a few times in your statement—that the Army must "compete with and deter near-peer competitors" or "deter highly capable adversaries". With the rise of emerging technologies such as AI, 5G, quantum information systems, biotechnologies etc, what does deterrence look like under great power competition, and how is the Army utilizing these technologies to create new deterrence mechanisms?

Secretary MCCARTHY and General MCCONVILLE. The strength of the NATO Alliance and our partners in Europe, our ability to integrate and conduct combined operations, and the ability of the U.S. Army to deploy significant forces in support of our Allies is the bedrock of our deterrence strategy. The Army conducts frequent rotation of forces in support of INDOPACOM and elements of our Multi-Domain Task Force will be incorporated into the Defender Pacific exercises to demonstrate U.S. capability and commitment to deterrence in the region. The Army is also planning to employ modernized capabilities such as those that you highlighted, as well as Long Range Precision Fires and Air and Missile Defense, in the Western Pacific to reinforce deterrence of Chinese aggression and coercion of regional states.

QUESTIONS SUBMITTED BY SENATOR RICK SCOTT

EFFICIENCIES

48. Senator SCOTT. Secretary McCarthy, the Department of the Army under Secretary Mark Esper made great strides in becoming more efficient and redirect spending for new priorities. What more do you see that can be done and what are the lessons learned that could be shared across the Pentagon?

Secretary MCCARTHY. The Army continues to aggressively pursue reforms focusing on the divestment of lower priority programs and investment in higher priorities. Secretary Esper has worked with all the Military Services to establish a similar process focused on prioritizing spending. The Night Court process is being established across the other Services as well as other Department of Defense Agencies. The first 2 years of Army "Night Court" program reviews were driven top-down, resulting in over $30 billion realigned to our priorities; for the fiscal year 2021 budget, program managers led these fiscal reviews in a bottom up approach, resulting in another almost ~$10 billion realigned over the FYDP to Army modernization and readiness priorities. We are also improving the way we do business—ex. the Command Accountability and Execution Review (CAER) shifted the culture toward commander and senior leader involvement in the stewardship of their fiscal resources, resulting in reduced O&M deobligations by 37 percent compared to historical norms, reducing lost purchasing power.

COVID–19

49. Senator SCOTT. Secretary McCarthy, as training continues, what precautions is the Army taking to prevent servicemembers from contracting the Coronavirus, as it continues to plague our country?

Secretary MCCARTHY. We continue to train, but the Army has suspended or scaled back military exercises to include DEFENDER-Europe 20 and combat training center rotations, implemented travel restrictions and quarantine policies, enhanced screening procedures for new recruits reporting to and processing thru basic training, and published screening and prevention guidance to include social distancing guidelines, management of movements, and workforce limitations.

QUESTIONS SUBMITTED BY SENATOR MARSHA BLACKBURN

JOINT WARFIGHTING CONCEPT

50. Senator BLACKBURN. General McConville, the idea of Multi-Domain Operations (MDO), is still largely driven from within each service. How is the Army supporting a more Pentagon-wide approach that would pull together each military branch and develop tools that function across all services and is interoperability a consideration?

General MCCONVILLE. The Army is nested with the Joint Staff on the development of the Joint All Domain Operations concept and well as the development of the Joint All Domain Command and Control (JADC2) system architecture. Each service has a portion the concept development and all efforts are nested and coordinated thru the Joint Staff.

MULTI-DOMAIN TASK FORCE

51. Senator BLACKBURN. General McConville, in October 2019, you mentioned support for Admiral Philip Davidson's request for the stationing of two Multi-Domain Task Forces (MDTF) in USINDOPACOM, which were then listed on USINDOPACOM's Unfunded Priorities List for fiscal year 2021. When considering near-peer competition, where will the MDTFs mentioned in your posture statement be geographically focused and when can we expect to see them stood up?

General MCCONVILLE. The Army plans on three MDTFs, two focused on INDOPACOM and one on EUCOM. The first INDOPACOM focused MDTF will be activated by the end of fiscal year 2020 and the second will be activated by fiscal year 2023. The EUCOM MDTF is currently undergoing the OSD process for consideration of stationing units overseas.

52. Senator BLACKBURN. Secretary McCarthy, I've had multiple conversations with military leaders about the importance of Multi-Domain Task Forces, but this year we saw them on USINDOPACOM's unfunded priorities list. What specific, tangible investments will we see in fiscal year 2021 that the Army is delivering to strategic readiness, and are you building out a short, medium, and long-range plan?

Secretary MCCARTHY. The Army is investing to improve its global posture by positioning formations and equipment (APS) in key strategic locations to deter adversaries and assure partners; investing in its Organic Industrial Base (OIB); improving mobilization through MFGI investments and exercises; building proficiency through repetition in deploying/redeploying operations with Dynamic Force Employment (DFE) and Emergency Deployment Readiness Exercises (EDREs); sustaining its generating and operating forces; and aligning APS & LOGCAP to NDS priorities. In fiscal year 2021, Army is investing in site surveys and studies to refine the short, medium, and long range plans for expanding Multi-Domain capabilities in USINDOPACOM out through 2030.

EQUIPMENT

53. Senator BLACKBURN. Secretary McCarthy, last year I had the opportunity to visit National Guard soldiers from the 278th Armored Cavalry Regiment serving a 9 month deployment in Poland and Ukraine. They were at times the most forward deployed unit of our total force if a conflict were to break out against Russia, but I often heard from these soldiers that their equipment was outdated and difficult to maintain. How are we ensuring that we maintain deployable and interoperable equipment and force structure across the Active and Reserve components?

Secretary MCCARTHY. As the Army fields modernized equipment, the priority will be to those forces expected to make contact with an adversary first—regardless of component. Nevertheless, there are plans to continue to provide the Army National Guard with modernized equipment in parallel or before the Active Component. Examples of systems being fielded to the National Guard in parallel or before the Active Component include the AH–64E Apache to replace older model Apaches, UH–60M Black Hawk helicopters to replace older UH–60A models, the Next Gen Squad Weapon to replace some M4 rifles, IVAS to replace some of their current night vision devices, Stryker double-V hull A1s to replace flat bottom hull Strykers, the M1A2 SEP V3 and V2 Abrams tanks to replace older M1A1 AIM Abrams tanks, and the Soldier Borne Sensor and Short Range Reconnaissance UAVs to add capability at the small unit level.

SPACE

54. Senator BLACKBURN. Secretary McCarthy, with the recent creation of the Army Satellite Operations Brigade, we see that the United States Army Space and

Missile Defense Command (USASMDC) is making deliberate efforts to reorganize the force to support United States Space Command (USSPACECOM). What should we expect to see next from USASMDC, and how specifically does support of the newest combatant command fit in with Army's modernization priorities?

Secretary MCCARTHY. The Army has emerged as the largest integrator of space capabilities in the DOD, and currently leverages space capabilities to enable ground combat operations. As the Army continuously updates its doctrine, organizational designs, training, and capabilities to conduct multi-domain operations, the employment of organic army space capabilities will be a decisive factor in competition, crisis, or conflict. We are working the merger with US Space Force and will divest assets over time. However, we must retain necessary organic space-related capabilities to balance space capabilities across the force and limit operational risk.

QUESTIONS SUBMITTED BY SENATOR JOSH HAWLEY

COVID–19

55. Senator HAWLEY. Secretary McCarthy, on March 12, a Chinese Foreign Ministry spokesman tweeted, "It might be [sic] U.S. Army who brought the epidemic to Wuhan." How do you respond to the allegation that the U.S. Army may have been responsible for delivering the novel coronavirus to the Chinese city of Wuhan?

Secretary MCCARTHY. There is no logical response to such an irrational accusation.

GENERAL LEONARD WOOD ARMY COMMUNITY HOSPITAL

56. Senator HAWLEY. Secretary McCarthy, on January 16, 2020, I asked now-Under Secretary of the Army James McPherson about the Army's plans to rectify personnel shortages at the General Leonard Wood Army Community Hospital (GLWACH) at Fort Leonard Wood, Missouri. Mr. McPherson said that those personnel shortages were a result of the mishandling of personnel transfers by the Army and assured me that GLWACH would be "fully staffed again" by this coming summer. Can you confirm that the Army is still on track to have GLWACH fully staffed by this summer?

Secretary MCCARTHY. MEDCOM will ensure GLWACH is staffed to required staffing levels pending any impact due to long-term COVID–19 pandemic response, to include in place stop-move policies.

ACTIVE PROTECTION SYSTEM

57. Senator HAWLEY. General McConville, the Army budget supports outfitting just four of the Army's 16 armored brigade combat teams (ABCTs) of M1 Abrams tanks with Active Protection System (APS) kits to defeat threats like rocket-propelled grenades (RPGs) and anti-tank guided missiles (ATGMs). What is the level of risk assumed by not outfitting the remaining ABCTs, as well as the Army's Strykers, with APS kits, and what would be the impact on the Total Army Force's survivability if it received additional APS kits?

General MCCONVILLE. We have procured five brigades of installation kits and four brigades of Trophy Active Protection Systems (APS) for the Abrams tank. All systems will be installed by third quarter, fiscal year 2021, after which the Army has decision points for future APS systems. We are evaluating off-the-shelf systems such as Iron Fist-Light for Bradley and continuing to look for appropriate solutions for Stryker. While additional APS sets would improve survivability, our future APS buys must be able to evolve with the threat and available technology. The Army will continue to request funding to proceed with technology maturation that addresses those future capabilities.

INDO-PACIFIC THEATER

58. Senator HAWLEY. Secretary McCarthy and General McConville, the National Defense Strategy says that the Department of Defense will maintain combat-credible forward forces in order to deter enemy aggression, or if deterrence fails, blunt the enemy's attack until war-winning surge forces arrive. Secretary McCarthy, you seemed to allude to this directive in your recent remarks that "[a]ccess and presence are critical in order to deter conflict . . . being on the ground matters." What are the Army's most important posture requirements for the Indo-Pacific theater, and how will meeting those requirements support the Army's ability to blunt Chinese aggression, if deterrence fails?

Secretary MCCARTHY and General MCCONVILLE. The Army has an important role in the greater Indo-Pacific theater and requires access, presence, and posture to deter and defeat great power competitors in the INDOPACOM theater. The Indo-Pacific theater is a land force centric environment within a larger maritime theater where most of the regional militaries are land force centric. The Army can most effectively advance national interests and contribute to regional stability and the peaceful resolution of conflicts by establishing regional security partnerships in the South China Sea and Southeast Asia. The U.S. Army envisions a robust and resilient presence through and with regional security partners and allies to deter aggression and set the conditions for the Joint Force to flow forces in the event of a crisis. If deterrence fails, the U.S. Army will be postured though expeditionary basing to rapidly transition to conflict, all the while providing theater-level protection and sustainment capabilities for the Joint Force in combat.

59. Senator HAWLEY. Secretary McCarthy and General McConville, the Army's concept document, "The U.S. Army in Multi-Domain Operations—2028," includes the following passage: "Russia has increased its investments in anti-access and area denial capabilities and systems intended to deny the Joint Force entry into a contested area and set the conditions for a fait accompli attack." The multi-domain operations concept document subsequently defines a "fait accompli" as an "attack . . . intended to achieve military and political objectives rapidly and then to quickly consolidate those gains so that any attempt to reverse the action by the U.S. would entail unacceptable cost and risk." It concludes that in order to "provide a credible deterrent," Army forces must demonstrate the "[a]bility to immediately deny a fait accompli attack." While the MDO concept document focuses on the threat of a Russian fait accompli, the Department of Defense's "Indo-Pacific Strategy Report" warns of the threat of a fait accompli in the Indo-Pacific theater, as well. With that in mind, would you agree that China is investing in systems intended to deny the Joint Force entry into a contested area and set the conditions for a fait accompli attack, and if so, would you agree that in order to provide a credible deterrent against China, Army forces must demonstrate the ability to immediately deny a Chinese fait accompli attack?

Secretary MCCARTHY and General MCCONVILLE. Yes, it is clear that China is investing in weapon systems and force posture actions intended to increase their anti-access/area denial capabilities in the Pacific and deterrence is a critical component of our National Defense Strategy. The Army's Multi-Domain Operations concept was developed and matured over the course of several years as a result of significant analytical efforts to include wargames, exercises, and experiments. The Army is now applying the existing Multi-Domain Operations concept to the China scenario. As we do so, we will consider the capabilities and concepts of operations of potential adversaries and well as the operational environment. The Army will conduct a similarly detailed and robust analysis for the Asia-Pacific region as we have done for Europe and adapt our concepts as necessary.

QUESTIONS SUBMITTED BY SENATOR JACK REED

U.S. ARMY MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASE

60. Senator REED. Secretary McCarthy and General McConville, in my opening statement, I raised concerns that the Department of Defense has not prioritized the mission performed by U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), and in fact, the Department has cut funding to the program. USAMRIID is at the forefront in research on COVID–19, and this Committee needs to understand immediately what the Army plans do to ensure USAMRIID remains a world class institute.

I understand you have restricted funds for research in the current High Containment Facility at Fort Detrick. What are you doing to expeditiously fix this problem, and what specific actions is the Army taking in order to bring the New High Containment Facility at Fort Detrick online in order to replace the aging one?

Secretary MCCARTHY and General MCCONVILLE. The Army implemented an effective and responsive plan of action and milestones that returned USAMRIID to full operating capabilities in a timely manner. USAMRIID is now at Full Operational Capability (FOC). All work objectives in Biosafety Level (BSL)–2, BSL–3 and BSL–4 Federal Select Agent Program (FSAP)-registered space will commence to include priority work associated with multiple other DOD agencies and Cooperative and Development Research Agreement (CRADA) partners. Simultaneously, the Army conducted an extensive review of our medical research capabilities and is in the process

of implementing changes that will facilitate the availability of these capabilities in the future.

U.S. ARMY CORPS OF ENGINEERS AND BORDER WALL CONTRACTS

61. Senator REED. Secretary McCarthy and General McConville, as I mentioned in my opening statement, this week the Army awarded a $524 million contract for the Tucson Sector Barrier Wall Replacement Project. The United States is grappling with a global pandemic and COVID–19 infections have been in reported in all 50 States. Many of the hospital systems across our country may soon be at capacity, and a border wall with Mexico would not have stopped the spread of the novel coronavirus. Please explain why the Army is not redirecting all border wall funding toward COVID–19 support efforts?

Secretary MCCARTHY and General MCCONVILLE. Border Security remains an Administration priority and supporting this effort remains a directed mission for the Army. COVID–19 has caused all nations to reexamine their border policies as part of medically advised efforts to limit spread. As you have seen, the Army is aggressively responding to the COVID–19 crisis on a daily basis. As new requirements appear, the Army continues to coordinate closely with OSD to identify the best funding solution to address all mission requirements.

U.S. MILITARY ACADEMY AND COVID–19

62. Senator REED. Secretary McCarthy and General McConville, the U.S. Military Academy (USMA) has decided to extend the delay of the return of cadets to West Point until further notice due to the COVID–19 crisis. The cadets are currently attending virtual classes and using remote learning platforms. Has USMA or senior Army leadership made any decision yet on whether or not the cadets will be allowed to return to finish the academic year?

Secretary MCCARTHY and General MCCONVILLE. We have not yet made a decision. LTG Williams is using a deliberate planning process with guidance from Army Senior Leaders to make decisions about the return of the Corps of Cadets, remainder of the academic year, graduation, the impacts to Cadet Summer Training, and entrance of the Class of 2024. The planning process weighs risk to the Academy Mission and risk to protecting the entire West Point Team. Right now, the Corps of Cadets continues to conduct remote education to minimize disruption to the academic year. We will continue to keep you informed as the situation and our planning efforts develop.

U.S. ARMY CORPS OF ENGINEERS

63. Senator REED. Secretary McCarthy and General McConville, as the U.S. Army Corps of Engineers (USACE) continues the planning and conversion of existing buildings into alternate medical care facilities, is USACE considering acquiring modular capabilities that exist within the industrial base, such as field hospital structures and medical shelters that are rapidly deployable to areas that may not have existing large capacity buildings?

Secretary MCCARTHY and General MCCONVILLE. In support of FEMA Mission Assignments and as the COVID–19 situation develops, USACE is working with FEMA and Health and Human Services to rapidly respond to emerging needs. As part of this effort and the anticipated need to supply large scale temporary facilities to communities where suitable existing buildings might not be available, USACE has conducted market research to identify available modular facility manufacturers and to gain an understanding of their capabilities, manufacturing capacity and projected delivery timelines. These facilities could be contracted for by USACE or elsewhere within DOD as well as directly by FEMA or local Governments.

CLOSE COMBAT LETHALITY TASK FORCE

64. Senator REED. Secretary McCarthy and General McConville, former Secretary of Defense James Mattis established the Close Combat Lethality Task Force (CCLTF) during his tenure to dramatically improve the effectiveness and survivability of close combat formations through a combination of materiel and non-materiel means, including innovations in recruitment, retention, training, concepts of operation, tactics, techniques, and procedures, and equipment. The CCLTF was designated as a direct report to the Secretary of Defense and as a Cross Functional Team (CFT) under section 911 of the National Defense Authorization Act (NDAA) for fiscal year 2017.

Secretary Esper recently decided to reassign the CCLTF to the Army, ending its designation as a CFT under section 911. While the Army has indicated that they

remain committed to the vision and success of the CCLTF, it remains to be seen if the Army will pursue both material and non-material initiatives to enable close combat lethality and survivability.

What are your intentions regarding enduring support for the non-materiel initiatives to greatly improve close combat lethality and survivability?

Secretary MCCARTHY and General MCCONVILLE. The Army will continue to develop, evaluate, recommend, and implement improvements to U.S. Squad-level infantry combat formations in order to ensure close combat overmatch against pacing threats, and strengthen the combat, lethality, survivability, resiliency, and readiness of infantry squads. This includes determining which material/non-material functions can transition from the CCLTF and to what command/agency. We will accomplish this analysis with the input of all stakeholders (USA, USMC, SOCOM, TRADOC, AFC, FORSCOM, and Congress). This will ensure we develop an executable plan that does not impede the progress made by the CCLTF and supporting agencies. Army and Marine efforts have been integrated since the inception of the Close Combat Lethality Task Force (CCLTF) and we plan to continue that model as the Army takes the lead. Both services will stay involved in the development and testing of new doctrine and concepts, as well as systems like the Integrated Visual Augmentation System and the Next Generation Squad Weapon.

QUESTIONS SUBMITTED BY SENATOR JEANNE SHAHEEN

COVID–19

65. Senator SHAHEEN. Secretary McCarthy and General McConville, as you are aware, there is an urgent need for assistance in combatting the spread of COVID–19 across New Hampshire and across our Nation. Could you discuss what the Army is doing to fight the spread of this virus, and what the Army is doing to help treat patients infected with COVID–19, including the use of field hospitals?

Secretary MCCARTHY and General MCCONVILLE. As of 13 April, the U.S. Army is postured to support and decisively responding to requests for assistance. U.S. Army North has established its Joint Force Land Component Command headquarters in support of NORTHCOM and activated its ten Defense Coordinating Elements and four regional Task Force Headquarters in response to a request from FEMA. The U.S. Army Corps of Engineers (USACE) have received 48 FEMA mission assignments totaling over $1.7 billion to provide initial planning and engineering support to address possible medical facility shortages in the U.S. due to the COVID–19 pandemic. USACE, and their more than 15,000 personnel engaged in the effort, has completed over 1,000 Alternate Care Facility (ACF) site assessments and have 25 ACFs on contract across 14 states to include the Javits Center in New York and the Detroit Convention Center. More than 24,000 National Guard Soldiers have been activated in all states to provide support to State and local governments by delivering food and supplies, assisting at COVID–19 testing stations, and cleaning public buildings. Finally, the Army has deployed three hospitals to support known hot spots in New York and Washington, and deployed 14 Urban Augmentation Medical Task Forces (UAMTFs) providing critical capabilities and capacity that will ease the burden of the regional health systems.

COLD REGIONS RESEARCH AND ENGINEERING LAB

66. Senator SHAHEEN. Secretary McCarthy and General McConville, the U.S. Army Cold Regions Research and Engineering Lab in Hanover, New Hampshire, is a leader in solving strategically important problems faced when operating in cold weather environments such as the Artic. Could you discuss what the Army is doing in response to the 2019 Department of Defense Arctic Strategy Published in in June 2019?

Secretary MCCARTHY and General MCCONVILLE. The Army has and continues to maintain a significant footprint in the Arctic and sub-Arctic regions. In ensuring our Nation's defense, the Army trains, performs exercises, and operates in extreme cold weather environments to continue to meet its mission and the challenges of a changing region.

We agree that the U.S. Army Cold Regions Research and Engineering Lab (CRREL) in Hanover, New Hampshire, is a leader in solving strategically important problems faced when operating in cold weather environments such as the Artic. CRREL continues to support the Army and the Nation in meeting the challenges we face in performing and sustaining operations and in maintaining a well-trained and ready force. We are asking them to focus on obtaining an awareness of the Arctic domain and sustaining all operations.

The Army executes six Arctic exercises annually: Vigilant Shield and Arctic Edge; Ardent Sentry and Vigilant Guard; and Vibrant Response and Guardian Response. The Army is exploring funding options for cold weather clothing and equipment in the Fiscal Year Defense Program to support the five brigades that train for cold weather operations.

GUARD AND RESERVE MILITARY CONSTRUCTION

67. Senator SHAHEEN. Secretary McCarthy and General McConville, according to the 2014 Readiness Center Transformation Master Plan the National Guard needs over $1 billion dollars annually over the next 15 years in order to meet 80 percent of the space requirements and increase their condition to fair. Could you please explain why our Army Reserve and National Guard facilities are continually funded disproportionately less than our Active Component and well below the amount required to adequately update them?

Secretary MCCARTHY and General MCCONVILLE. Over the last 3 fiscal years the ARNG portion as a percentage of the MILCON budget has increased from 11.9 percent in the fiscal year 2019 enacted to 27.2 percent in fiscal year 2021 budget request. While this level of funding falls short of the $1 billion requirement laid out in the Army National Guard (ARNG) 2014 Readiness Center Transformation Master Plan it does, to the maximum extent possible in the current MILCON budget environment, allow the ARNG to program for the replacement of its highest priority Readiness Center projects. In regards to the U.S. Army Reserves, they also had an increase in requested funding when you compare the fiscal year 2019 enacted to the fiscal year 21 budget request (5 percent to 7.5 percent of the MILCON budget).

ACTIVE DUTY AND RESERVE FORCE STRUCTURE

68. Senator SHAHEEN. Secretary McCarthy and General McConville, could you explain why there is disparity between Active Duty and Reserve Component force structure? I understand, for example, that an Active Duty HIMARS (High Mobility Artillery Rocket System) battery consists of 27 systems, while a Reserve battery has only 16.

Secretary MCCARTHY and General MCCONVILLE. The difference is based on modernization priorities and available systems. For example, all Active and Reserve Component Multi-Launch Rocket System (MLRS) rocket artillery battalions will consist of 27 systems by fiscal year 2026. As we modernize the Army, some units will be fielded with fewer or different systems until procurement of modernized systems become available. This is not just a difference between components, we have different mixes within each component while we are changing organizational designs and modernizing the Total Force.

BORDER WALL FUNDING

69. Senator SHAHEEN. Secretary McCarthy, last year the Department of Defense realigned $6 billion from its budget toward constructing a border wall along the United States' southern border with Mexico. More recently, the administration informed Congress that it was going to divert another $3.8 billion from the Pentagon to the border wall from various programs essential to supporting the National Defense Strategy. Can you discuss the impact of raiding military construction projects and various equipment and weapons systems accounts on the Army and its ability to support the NDS?

Secretary MCCARTHY. I agree with the CJCS assessment that there is no significant, immediate, strategic negative impact to the overall defense of the United States of America.

QUESTIONS SUBMITTED BY SENATOR RICHARD BLUMENTHAL

U.S. ARMY MEDICAL RESEARCH & DEVELOPMENT SUPPORT FOR COVID–19

70. Senator BLUMENTHAL. Secretary McCarthy, I know that the Walter Reed Army Institute of Research has extensive experience studying both severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS), two high-profile coronaviruses that caused deadly outbreaks. Can you speak to how you are leveraging this experience to support your civilian counterparts, and elaborate on any additional interagency efforts by U.S. Army Medical Research and Development Command to support COVID–19 treatment and vaccine development?

Secretary MCCARTHY. Medical Research and Development Command (MRDC) and its subordinate commands are working across a broad coalition of civilian entities

and other Federal agencies to research, develop, and acquires treatments and vaccines. A few examples follow:

a. MRDC is working closely with the Vaccine Research Center/National Institute of Allergy and Infectious Diseases (NIAID; Dr. Fauci) on shared vaccine concepts for COVID–19 including standardized test and evaluation parameters in both animal models and clinical trials;

b. NIAID, Biomedical Advanced Research and Development Authority (BARDA), and WRAIR are in discussion about tech insertion of vaccine and monoclonal antibody countermeasures developed by others into our combined test and evaluation competencies to speed the fielding of effective capabilities for prevention and treatment;

c. MRDC is working closely with Harvard Medical School/Mass Gen Hospital/Beth Israel Deaconess Medical center on rapid animal model evaluation of COVID–19 medical countermeasures to prevent and treat COVID–19;

d. MRDC has an agreement in place with Gilead for access to Remdesivir under an expanded access protocol to make investigational treatment available for servicemembers in locations where access to clinical trials is not feasible. Indication is for servicemembers with severe COVID–19 infection;

e. MRDC has multiple cooperative research and development agreements in place and in process for development, testing, and evaluation of prevention, treatment, and diagnostic technologies emerging from industry, academia and USG partners. Key areas include therapeutic screening, vaccine human safety studies, improved rapid, high-throughput diagnostics tests, and point of care diagnostics.

f. MRDC coordinates Medical Countermeasure (MCM) Research and Development (R&D) efforts through the U.S. Interagency MCM Task Force, led by HHS-BARDA.

COVID–19 AND ARMY READINESS: TRAVEL SUSPENSION

71. Senator BLUMENTHAL. Secretary McCarthy and General McConville, in recent guidance issued by the U.S. Army, you made the decision to suspend movement and delay travel of soldiers stationed in Italy and Korea, both of which have been identified by the Center for Disease Control as alert level three for COVID–19. Just yesterday, Secretary Esper issued a stop movement order to halt all travel and movement abroad for up to 60 days. How do you plan to keep these soldiers and their families healthy while mitigating any readiness degradation given these travel delay orders?

Secretary MCCARTHY and General MCCONVILLE. The No. 1 priority in this crisis is protecting our people. Although the stop move order will have effects on our force, it will significantly reduce the risk of infection or spread of the virus. We have adjusted numerous personnel policies and entitlements to ensure our soldiers and their families have the information, pay, and resources to get through this pandemic. Although we have curtailed training and exercises, Commanders at all levels will conduct training based within the published Army and CDC guidance to maintain our readiness.

MILITARY EXERCISE AND TRAINING CANCELATIONS

72. Senator BLUMENTHAL. Secretary McCarthy and General McConville, the Army recently canceled several major joint exercises in both USINDOPACOM and USEUCOM and rebranded them "combined command post exercises." How does the canceling of these exercises impact the Army's ability to provide strategic deterrence to combatant commanders, and what metrics are you using to decide what training must continue, and what can be postponed?

Secretary MCCARTHY and General MCCONVILLE. At the operational and strategic levels the Army has moved very quickly to respond to COVID–19 in order to protect both the force and the Nation. The Army will continue to prioritize force protection in the current environment. Doing so will preserve current readiness and our ability to respond in crisis. We will continue to evaluate the need to scale back planned training based on a rigorous analysis of the risk to force. Commanders at all levels are assessing their local conditions and modifying training to minimize risk to our force while maximizing our readiness. Additionally, the Army has initiated planning on how to adjust our planned training and exercises through the remainder of the year when the conditions exist to execute. The longer the pandemic lasts, the greater the possibility there will be an impact to readiness, but to what degree is yet to be determined. As regular GFMAP rotations are postponed we are consuming readiness by not utilizing the BCTs/units that are/were prepared to deploy. The length of the delay in deployments for GFMAP rotations will determine—unit specific—what is needed to refresh training on prior to deployment.

COVID–19 AND MILITARY-TO-MILITARY PARTNERSHIPS

73. Senator BLUMENTHAL. Secretary McCarthy and General McConville, given the cancelation of major joint exercises for the near future, what actions are you taking to ensure we maintain strong strategic military-to-military partnerships across the globe?

Secretary MCCARTHY and General MCCONVILLE. While a number of major exercises have been canceled in the near-term, we remain committed to strengthening our partnerships, and building capacity and capability in the mid-and long-term. We are exploring positive actions allowing us to test our concept of Dynamic Force Employment. The Total Army is in continuous contact with allies and partners at multiple levels, and will continue to reassure them of our commitment. As the Army continues to support the U.S. Government response to COVID–19, Army Senior Leaders are in regular contact with allies and partners through phone calls and email to keep lines of communication open, share best practices and lessons learned, and discuss any impacts on strategic readiness. The Army has also directed the Multinational Fusion Cell within HQDA to seek COVID–19 SITREPs from their respective countries (Australia, Canada, France, Germany, Israel, Japan, S. Korea, and New Zealand) and exchanges on the impact and actions being taken by their Armies.

QUESTIONS SUBMITTED BY SENATORS BLUMENTHAL AND WARREN

COVID–19 AND ARMY READINESS

74. Senators BLUMENTHAL and WARREN. General McConville, recent guidance issued by the Center for Disease Control (CDC) provided specific recommendations to effectively execute social distancing, and many U.S. cities have issued shelter-in-place orders to mitigate the spread of COVID–19. What guidance are you providing to your commanders to implement social distancing and other protective measures as recommended by the CDC in order to prevent the spread of COVID–19?

General MCCONVILLE. The Army has followed CDC and the Commander in Chief's guidance with respect to social distancing. This information was provided to the force via three Army Orders/FRAGOs (#7 published on 14 Mar, #8 published on 15 Mar and # 11 published on 20 Mar). Additionally, the Army directed installations, camps, and posts to increase their Health Protection (HPCON) to protect our soldiers and their families, our civilians, and contractors and ensure we can continue our mission by minimizing the spread of COVID–19.

QUESTIONS SUBMITTED BY SENATOR MAZIE K. HIRONO

CORONAVIRUS RESPONSE

75. Senator HIRONO. Secretary McCarthy and General McConville, the Army Garrison in Hawaii now has four diagnosed cases of COVID–19. Two individuals are assigned to Tripler Army Medical Center and cases on the island continue to increase every day. How have the Army, Army National Guard, and Tripler Army Medical Center prepared to respond to an uptick in coronavirus cases and assist the local civilian response?

Secretary MCCARTHY and General MCCONVILLE. The U.S. Army Pacific is taking all necessary actions to mitigate the spread of COVID–19 in our formations through (but not limited to): maximizing telework, social distancing, reducing in-person meetings to six-persons or less and maximizing the use of video-teleconferencing, physical training is on an individual basis to prevent large groups of soldiers gathering in one place, and enforcing all post travel quarantine standards. In the last 48 hours, USARPAC, acting as the INDOPACOM TJFLCC, has issued our base Defense Support for Civil Authorities (DSCA) in support of FEMA as the Lead Federal Agency (LFA) for the COVID–19 response. The order includes directives for the INDOPACOM service components to begin planning to provide support to FEMA, including but not limited, to medical resources and sea and air lift. The Hawaii based Defense Coordinating Officer is in constant coordination with FEMA on emerging requirements. Today, the TJFLCC supported FEMA with a rotary wing mission to Maui that transported a team from the U.S. Army Corps of Engineers to execute site surveys for potential alternate medical care facilities. Over the next 72 hours, TJFLCC is collecting and validating names for the Title 10 DDSC and staff that will support the Dual Status Commander once designated.

The Governor of Hawaii named Hawaii National Guard's Adjutant General, MG Kenneth S. Hara, as the overall incident Commander. MG Hara is also the Hawaii Emergency Management Director, and is in direct coordination with all levels of government in planning, coordinating, and responding to COVID–19 in the State of Hawaii. The Hawaii National Guard's (HING) Joint Staff has stood up a Joint Operations Center to manage the HING's response and is preparing to stand up the HING Joint Task Force and a Dual Status Command, if required. Currently, the HING has 146 soldiers and airmen on State Active Duty supporting contingency planning and operational planning (medical support, security, traffic control) and conducting Joint Reception Staging, Onward movement, and Integration (JRSOI). This includes a Ready Reaction Force and one (1) heavy lift aviation asset currently on standby, prepared to support the State as directed.

Tripler Army Medical Center (TAMC) continues coronavirus preparedness and response efforts through close coordination with all military medical facilities on Oahu and the local community as an Active member in the Healthcare Association of Hawaii and statewide Emergency Management System. TAMC provides drive thru screening and testing on Fort Shafter Flats (Monday-Saturday) to improve access to care. TAMC's drive thru screening and testing eases the demand on TAMC's emergency Department. TAMC continues operational bed expansion planning to maximize capacity. The military medical facilities in the Hawaii Military Health system are identifying, credentialing, and training military medical professionals across the Joint

Force with critical care and emergency medicine training to support an expected increased inpatient demand. TAMC and Regional Health Command—Pacific healthcare facility planners—are identifying military facilities on Oahu that can be repurposed for expanded COVID–19 patient treatment areas.

ARMY ROLE IN THE PACIFIC

76. Senator HIRONO. Secretary McCarthy and General McConville, as you continue to pivot the Army toward the National Defense Strategy defined by great power competition, it is important for the United States to project strength, reassure our allies, and build partnerships in the Indo-Pacific, particularly in response to Chinese and North Korean activity. Your Fiscal Year 2021 Budget Request specifically notes the importance of funding multi-lateral exercises to meet the goal of strengthening alliances and partnerships. What is the current status of targeted multi-lateral exercises in the Indo-Pacific region given the coronavirus pandemic?

Secretary MCCARTHY and General MCCONVILLE. U.S. and partner nation responses to COVID–19 have unfortunately required the cancellation or postponement of a number of near-term exercises with our partners. Exercise TIGER LIGHTNING with Bangladesh has been postponed, as has a South Korean Army rotation to the National Training Center. Exercise COBRA GOLD with Thailand was completed prior to the declaration of the COVID–19 pandemic. Planning conferences for exercises KEEN EDGE / ORIENT SHIED and YAMA SAKURA with Japan will continue on in a digital format. We remain in regular and close contact with our Indo-Pacific allies and partners on future exercises, as well as the broader U.S. commitment to the region.

MILITARY HOUSING

77. Senator HIRONO. Secretary McCarthy, you mention in your posture statement that you have "brought Army leadership back into the housing equation, empowering tenants and holding partners accountable." Our people deserve safe, high quality housing. How is Army leadership working with privatized companies to provide safe, quality housing to our military families?

Secretary MCCARTHY. The Army and its leaders are fully engaged. The Quality of Life (QOL) for our soldiers, families, and civilians is my top priority; safe and quality housing is integral to QOL efforts. Under the direction of GEN Perna at U.S. Army Materiel Command, the Army has taken the following steps to provide safe, quality housing to our military families:

- We are holding the privatized housing companies to account. We revised their Incentive Fee structure to place increased emphasis on maintenance quality, maintenance response times, and resident satisfaction.
- We've established processes to review all privatized housing company investment proposals, to ensure the right amount of money is being applied to fix the right problems (example—upgrading HVAC systems to prevent mold growth rather than just focusing on mold remediation).
- Finally, we've increased our holistic analysis of the financial conditions of all seven privatized companies to ensure they have the capital to either fix or fully

renovate aging inventories. We are working with the administration to clarify OMB scoring rules, which would allow the Residential Community Initiative (RCI) companies access to more capital.
- In 2020, RCI Companies will invest $429 million in their inventories across our installations, building 106 new homes and renovating more than 1,100. More than $1B in RCI development funding is programmed through 2024.

CHILD DEVELOPMENT CENTERS

78. Senator HIRONO. Secretary McCarthy and General McConville, I note the request for $65 million for new childcare facilities and playgrounds at Schofield Barracks and Fort Shafter in Hawaii in the Army's Unfunded Priority List—since this is a readiness issue, I would have preferred to see them in the actual budget request. Access to safe, affordable childcare is an important quality of life issue for families. I added a provision to the Fiscal Year 2020 NDAA to significantly reduce the lengthy hiring process for qualified childcare providers on military installations by expanding direct hire authority. Has the streamlined direct hiring process for childcare providers been effective without sacrificing any of the quality and background checks for applicants?

Secretary MCCARTHY and General MCCONVILLE. The direct hire authority authorized in the 2020 NDAA pertained to General Schedule (GS) employees. Almost 100 percent of Army child and youth staff are non-appropriated fund (NAF) employees. Current Army policy gives Garrison commanders direct recruitment authority for NAF positions, and may delegate that authority to any level of management deemed appropriate. The Army uses this authority to fill positions with highly qualified child care staff more efficiently than other recruitment systems. Since 2018, onboard staffing increased from 79 percent to 86 percent (Oct 19) and is holding steady. An online NAF transfer system, the Child and Youth Employee Assistance Tool (CEAT), was launched in October 2019 to assist military spouses and civilian direct child care staff by allowing them to request a non-completive transfer at the same grade level/pay when PCSing to a new duty location. This tool reduces transfer time by 2 weeks. CEAT has placed 140 military spouses and 107 NAF civilian staff since October 2019. The tool is being expanded to include all CYS staff (CY, and NF–3 and below pay bands) by Oct 20.

WOMEN IN MILITARY SERVICE TO AMERICA MEMORIAL

79. Senator HIRONO. Secretary McCarthy and General McConville, the Fiscal Year 2020 NDAA conference report directed the Secretary of the Army to establish a memorandum of understanding with the Women in Military Service for America Memorial Foundation, Inc., to define responsibilities and allocate resources for the operation and maintenance of the Women in Military Service for America Memorial and surrounding grounds. What progress has been made on this memorandum and are there any limiting factors?

Secretary MCCARTHY and General MCCONVILLE. ANC and WIMSA have held multiple meetings over the last 3 months to develop the MOU as directed by the NDAA. A draft License agreement is currently being staffed to formalize WIMSA's occupancy on Federal land. Once this license is complete, the parties will finalize the MOU. These documents will establish and define each parties' responsibilities for operations and maintenance for the memorial.

QUESTIONS SUBMITTED BY SENATOR ANGUS S. KING, JR.

ACQUISITION REFORM

80. Senator KING. Secretary McCarthy and General McConville, in your testimony on soldier lethality you referenced a departure from the traditional requirements process as you develop the Integrated Visual Augmentation System. While I am encouraged by the approach, what oversight have you built in to ensure that the Army avoids requirement creep with this evolving strategy?

Secretary MCCARTHY and General MCCONVILLE. IVAS is one of the signature efforts under the Soldier Lethality Cross Functional Team (SL-CFT). The SL-CFT conducts quarterly touchpoints with the Secretary and Undersecretary of the Army, Chief and Vice Chief of Staff, the Army Acquisition Executive, the Commander of Army Futures Command, as well as the commanders of the other Army Major Commands. During those routine touchpoints, the SL-CFT Director and Program Executive Officer Soldier present any recommended requirements adjustments for Army Senior Leader decision. This rigorous process prevents requirements creep and ensures any changes to this high-priority program are approved at the appropriate

level. We are ensuring IVAS meets the right requirements by deliberately running each IVAS Capability Set (CS) through Soldier Touch Points (STP). Soldier Touch Points (STPs) are designed to test and validate fight first capabilities in a tactical field environment. Each CS has multiple STPs where soldiers provide feedback on form, function and capability as they execute their tactical missions. Army Senior Leaders review the feedback from the STPs when making decisions on capability trades in order to impose rigor and accountability in the requirements decision-making process.

PERSONNEL

81. Senator KING. Secretary McCarthy and General McConville, while I support your efforts in talent management and talent-based recruiting I would like to understand the Army's plan to target areas around the country to keep it a force that is representative of the United States as a whole? For example, with the many base closures in the New England region over the last 30 years much of the region has lost its connection to the military and has been a significant reduction in military accessions from that area and I would like to see that changed.

Secretary MCCARTHY and General MCCONVILLE. In October 2018 the Army began a process to prioritize our recruiting efforts and synchronize the Army's focus in twenty-two cities across the country to improve our connection to the country, and increase the diversity of the force by going into areas that we had not previously emphasized. Led by U.S. Army Training and Doctrine Command, we selected these twenty-two cities based upon their high population of qualified military applicants and low propensity to serve. The Focus 22 cities in the northeast region of the U.S. are Boston, New York, Philadelphia, Pittsburgh, and Baltimore. Over the past 18 months, the Army has conducted hundreds of accessions events in these Focus 22 cities varying from key leader engagements with civic leaders, Meet Your Army events, teaming up with the NFL, MLB, and college sports, and participation in community events. We are supporting these accessions events with Army bands, drill teams, marksmanship units, and the Golden Knights, and more recently with our newly developed 'e-Sports' and functional fitness teams. The collaboration of multiple Army organizations and the renewed focus to prioritize these communities has resulted in the Army reconnecting with the communities in these Focus 22 cities, which is contributing to meeting our accessions goals.

82. Senator KING. Secretary McCarthy and General McConville, what plans does the Army have to combat the increasing numbers of Active and veteran suicides? Also, please summarize the standard process a soldier goes through when transitioning from Active Duty to veteran status, how that process helps the service-member prepare for civilian life to include dealing with the mental and emotional stress of the transition, and where you think that process needs to improve.

Secretary MCCARTHY and General MCCONVILLE. One suicide is one too many. We are committed to significantly reducing suicides in the Army. We enhanced mandatory suicide prevention training for every soldier and Army civilian. We invested in resilience training and performance enhancement capabilities, which are available to each member of the Army Team. We also developed visibility tools to provide leaders with insight to develop targeted prevention and intervention plans to both identify and assist at-risk soldiers. All soldiers are required to attend the Transition Assistance Programs' initial counseling NLT 12 months prior to their end of service date. In that 12 month period, they are assessed and determine (with the help of trained counselors) their best transition plan and career track to help them achieve their individual goals. They then follow that plan through a series of counseling gates like resume and budget development. Finally, NLT 3 months prior to their end of service date, they sit with a counselor and conduct a final review of their transition preparation. If the soldier does not feel prepared for their transition off of Active Duty, or their Commander/counselor does not think they are prepared for their transition, the soldier receives a 'warm hand-off' to the Veteran's Administrations (VA) or Department of Labor (DOL). On average, about 100,000 soldiers a year go through this process. The hand-off to the VA/DOL is where can improve the most by confirming the hand-off and later obtaining a report on transition.

MISSILE DEFENSE

83. Senator KING. Secretary McCarthy and General McConville, what is the Army's strategy for developing the air and missile defense capabilities required to defend U.S. Forces against the increasing threat posed by cruise missiles and short and medium range ballistic missiles, also, how does the Army plan to address and defend against the emerging theater-level hypersonic weapon threats? Iran's attacks

against the Aramco facilities in Saudi Arabia last September and against U.S. Forces in Iraq in January should serve as a wake-up call for those threats.

Secretary MCCARTHY and General MCCONVILLE. The best defense against hypersonic and supersonic cruise missiles is to have robust offensive and defensive capabilities. From an offensive perspective, we are placing significant emphasis and investment into our own hypersonic capability. The current schedule of delivering a road mobile prototype hypersonic battery in fiscal year 2023 remains in place. We must also attack the munition once launched. The Missile Defense Agency is exploring defenses against hypersonic threats, and we are evaluating Patriot against the supersonic cruise missile threats. Supersonic threats are also an Indirect Fire Protection Capability (IFPC) objective requirement, while subsonic remains a threshold requirement.

QUESTIONS SUBMITTED BY SENATOR MARTIN HEINRICH

ARMY TEST RANGE INFRASTRUCTURE

84. Senator HEINRICH. Secretary McCarthy, I was encouraged to see the types of investments the Fiscal Year 2021 President's Budget proposed in Army modernization in technologies of the future like directed energy, hypersonics, and artificial intelligence. As you know, investments like these are only of use to our servicemembers in the field if we are able to transition them out of the laboratories. What kind of investments does the Army's budget make in our Nation's test and range infrastructure to speed up the tech transition process?

Secretary MCCARTHY. Investments in Army test and range infrastructure are fully aligned to meet the demands of Army Modernization and enable the rapid transition of new technologies from the lab to the battlefield. Investments are underway in critical test range infrastructure, such as wireless and fiber optic networks. Major families of range instrumentation, including radar, telemetry, and optics, are being modernized to support hypersonics and long-range fires testing. New instrumentation and targets for directed energy testing are being built. Computing resources, tools, and techniques for testing artificial intelligence systems are being developed. Commensurate investments are underway to support all Army Modernization priorities.

ARMY LONG RANGE PRECISION FIRES

85. Senator HEINRICH. Secretary McCarthy, over the past few years, the Army has tested capabilities for Long Range Precision Fires (LRPF) at White Sands Missile Range. As you know, LRPFs are a critical part of the 2018 National Security Strategy's modernization goals. Of the $1.7 billion in funding proposed in fiscal year 2021 for LRPFs, is any funding dedicated to testing and sustaining testing infrastructure or is this funding all research and development (R&D) and procurement and is the $1.7 billion sufficient to meet the Army's modernization timeline?

Secretary MCCARTHY. Yes, I believe the $1.7 billion submitted as part of the President's budget to support the Long Range Precision Fires (LRPF) portfolio is sufficient to meet the Army's modernization timelines. Funding in the fiscal year 2021 budget requests does support tests and infrastructure activities across the LRPF portfolio. For example, $7.1 million is allocated to support Precision Strike Missile Engineering Development Flight Tests that are currently scheduled to occur in 3QFY21.

ARMY DIRECTED ENERGY-MANEUVER SHORT RANGE AIR DEFENSE

86. Senator HEINRICH. Secretary McCarthy, the Army is testing its Directed Energy-Maneuver Short Range Air Defense (DE-MSHORAD) at White Sands Missile Range. How does DE-MSHORAD fit into the Army's overall directed energy program and what is the timeline for fielding this capability?

Secretary MCCARTHY. Yes, DE-MSHORAD is part of the Army strategy for Air Defense support to maneuver units. The DE-MSHORAD capability is intended to protect Divisions and Brigade Combat Teams from Unmanned Aerial Systems, rotary-wing aircraft, and Rocket, Artillery, and Mortar threats. The Army is leveraging past S&T investments and the progression of the Multi-Mission High Energy Laser (MMHEL) Technology Maturation Initiative to rapidly prototype DE-MSHORAD systems and field to a platoon in 4QTRFY22. DE-MSHORAD is one of three directed energy efforts the Army is pursuing. The second is Indirect Fire Protection Capability-High Energy Laser (IFPC-HEL), which will provide a 300 kW-class laser system by fiscal year 2024. Finally, the third is the IFPC-High Powered

Microwave, which uses electrical pulses designed to disable/destroy electrical components of threat equipment, also to be delivered by fiscal year 2024.

87. Senator HEINRICH. Secretary McCarthy, what can this Committee do to better support the Army's Directed Energy programs?

Secretary MCCARTHY. The Army is pursuing a variety of Directed Energy (DE) weapons, including both lasers and High Power Microwave (HPM) systems, to address near-peer threats as part of its modernization strategy. The Army has made Directed Energy a modernization priority in the Department and we would ask Congress to support our fiscal year 2021 budget request for all associated efforts. The Army Fiscal Year 2021 President's Budget Request for DE includes: DE-Maneuver Short Range Air Defense (DE-MSHORAD) demonstration for a down select in our competitive approach in fiscal year 2021 and the funds for three additional 50 kW-class lasers integrated onto Strykers to be delivered to a platoon (four vehicles) in fiscal year 2022; and the Indirect Fire Protection Capability-HEL (IFPC-HEL) funding for 300 kW-class laser system design, integration, and demonstration in fiscal year 2022.

MILCON CANCELLATION

88. Senator HEINRICH. Secretary McCarthy, I am encouraged by the Army's investment R&D and procurement for next-generation weapon systems, but remained concerned that we are not sustaining the test infrastructure needed to rapidly field these capabilities.

In fiscal year 2020, $40 million in military construction funding for an information systems facility at White Sands Missile Range was redirected to fund the President's ineffective border wall. Funding for that facility was not included in the Fiscal Year 2021 President's Budget. What is the plan to fund this critical facility?

Secretary MCCARTHY. The Army continues to work with the Office of the Secretary of Defense on a viable strategy to fund all the military construction project that were deferred; this includes the information systems facility project at White Sands Missile Range.

QUESTIONS SUBMITTED BY SENATOR ELIZABETH WARREN

COVID–19

89. Senator WARREN. General McConville, the Army has reportedly moved to virtual recruiting exclusively in order to protect recruiters and recruits from potentially COVID–19. What is your best assessment of the impact this will have on the Army's monthly recruiting goals?

General MCCONVILLE. As COVID–19 continues to impact the country, we are continuously assessing the environment to ensure we are making the necessary adjustment. USAREC was already focused on virtual recruiting as that is where today's youth market lives. Prior to COVID–19, digital and social media have been the top lead generating tools, producing 50,000 leads ahead of last year.

Army recruiters post career opportunities using online job postings, which has made it one of the largest lead production platforms. Virtual recruiting has produced a 40 percent increase in contracts from this time in fiscal year 2019 to fiscal year 2020. Further, 63 percent of all virtual recruiting contracts are quality applicants. While we are still analyzing virtual recruiting in today's environment, we are optimistic that we have put the conditions in place to ensure continued success in recruiting the force.

In order to set conditions for when recruiting can turn to normal operations, USAREC recruiters will virtually process applicants using a "soft contract" methodology.

Recruiters will gather leads using 100 percent Virtual Prospecting to identify interested applicants. Once the applicant is contacted, if the applicant expresses an interest in receiving more information on career opportunities with the U.S. Army, the Recruiter will conduct a virtual Army interview (Facetime or Skype) to provide them more information. If the applicant is still interested the recruiter will administer the Pending Internet Computerized Adaptive Test (PiCAT), which is a Virtual ASVAB. The PiCAT score is now valid for 45 days increased from 30 days due to COVID–19.

If the applicant achieves a PiCAT score that enables them to enlist, the recruiter will begin working with the applicant to virtually obtain all required documents. Further, recruiters now have the ability to virtual witness signing of Parental Consent Forms. The applicant will complete the Career Explorer app thus allowing Recruiters to build the applicant's record virtually. The recruiter will then generate a

Temporary Reservation that guarantees the applicant their MOS and incentives for 45 days, which was increased from 7 days due to COVID–19. The applicant will then be considered a "soft contract." The determination of when to continue applicant processing is dependent on the level of risk in the area in which the applicant resides. Once an area is determined to be safe to continue processing, the applicant will be taken to a Military Entrance Processing Station (MEPs), which is part of Military Entrance Processing Command (MEPCOM), to continue processing of the Physical and Enlistment Contract. Once an applicant has been cleared by MEPs, the applicant will be given a report date for reporting to Basic Combat Training.

The goal of the "soft contract" process is to enable USAREC to complete 90 percent of the applicant processing virtually to ensure the safety of the applicant and our recruiters. Further, we will be able to inform MEPCOM of "soft contract" applicant totals, so when recruiting operations return to normal, the processing will be in place to efficiently and effectively move applicants through the final stages of enlistment.

90. Senator WARREN. General McConville, what are the Army's contingency plans should it fail to meet its monthly recruiting goals?

General MCCONVILLE. In order to protect the Nation, we must first protect our force. We are prioritizing the health of the Army over any accessions goal. Army end strength is the cumulative product of accessions, retention, and attrition. If we are short on monthly recruiting (accessions) goals, we can adjust retention and attrition. For example, we are offering enlisted servicemembers the option to extend their current contract for a period of 3 months to 11 months under the Response to COVID Outbreak Extension (RCOE) policy. This new policy not only takes care of soldiers in a time of uncertainty, but we also expect it to bolster the Army's operating strength in the coming months. In addition, we are working to reduce soldier attrition from basic training.

91. Senator WARREN. General McConville, when do you expect to know if these contingency plans will need to be executed?

General MCCONVILLE. We are already starting to execute some of these contingency plans, partly because we know that retention and attrition management are crucial to maintaining the force that the Nation needs. We also monitor accessions results on a monthly basis. We will continue to evaluate the need for and potential timing of other personnel-related policies and levers that we may need to pull.

92. Senator WARREN. General McConville, are recruits being tested for COVID–19 before or after shipping out to basic training and what steps is the Army taking to ensure that the disease is not spreading amongst recruits and staff at recruit training facilities?

General MCCONVILLE. The Army is only shipping new recruits from areas of the country that are not high-risk; have been pre-screened; and exhibit no signs of COVID–19 to Army Training Centers. Trainees are continuously screened at each stage of the reception and transport process and then throughout their training. Upon arrival at an Army Training Center, trainees are screened before in-processing and enter into the 14-day restriction-of-movement / limited contact protocol where they complete administrative tasks and socially distanced academic training. Army Training Centers have implemented measures to maximize social distancing, limit the potential for spreading, and reduce risk. These measures include: filling classes to less than 50 percent to maximize social distancing; adjusting POIs to reduce close-proximity training (e.g., combatives training is postponed); reducing the size of groups (e.g., on bus transportation, in barracks and classrooms, etc.); maximizing the use of outdoor locations; modifying dining facility procedures; and continuously monitoring drill sergeants, cadre, and trainees for health issues and temperatures. Additionally, family days are canceled and graduations are closed to the public.

QUESTIONS SUBMITTED BY SENATOR GARY C. PETERS

PER-AND POLYFLUOROALKYL SUBSTANCES (PFAS)

93. Senator PETERS. Secretary McCarthy and General McConville, the Army is responsible for multiple PFAS contaminationsites in Michigan, including at Camp Grayling and the Grand Ledge Army Aviation Support Facility. How is the Army working to address PFAS contamination that it is responsible for, including how is the Army cooperating with State and local governments and impacted communities?

Secretary MCCARTHY and General MCCONVILLE. The Army has initiated response actions to assess the source and potential impacts of PFAS under the Comprehensive Environmental, Response, Compensation, and Liability Act (CERCLA) at both Camp Grayling and Grand Ledge Army Aviation Support Facility (Grand Ledge).

Drinking water has been sampled both on and off installation at Camp Grayling. There are 17 drinking water wells above the EPA lifetime health advisory (HA) of 70 parts per trillion, where the Army is providing bottled water and is in the process of providing whole-house filtration systems or connection to public drinking water systems. The Army has been collaborating with State and local health departments, Michigan's environmental regulator (Environment, Great Lakes and Energy (EGLE)), and the local county and city governments to coordinate Camp Grayling actions. The Army is meeting regularly with these stakeholders who freely share information among organizations, and with the general public through a series of joint public meetings. The Army is working closely with EGLE in an ongoing investigation to assess if PFAS from Army Guard activities at Grand Ledge has reached drinking water wells. Sampling has occurred both on and off the installation. There have been no drinking water wells found to exceed the lifetime HA on or around Grand Ledge.

OPTIONALLY MANNED FIGHTING VEHICLE

94. Senator PETERS. Secretary McCarthy and General McConville, a January 16, 2020, the Army canceled the Optionally Manned Fighting Vehicle (OMFV) program. This was the Army's third attempt to replace the Bradley. OMFV is part of the Next Generation Combat Program, the Army's second modernization priority. What additional requirements or characteristics do you expect of OMFV that weren't included in the original program and what do you expect to be different in submissions from industry?

Secretary MCCARTHY and General MCCONVILLE. OMFV characteristics will be refined through a series of industry engagements, digital design competitions, and soldier touch points to inform and sharpen OMFV final prototypes for testing yielding requirements for production. This approach will enable us to explore the solution space in an environment of rapid and inexpensive learning leading to verification through physical prototypes, soldier input, and testing. These encounters are also intended to challenge biases and confirm state-of-the-art technologies available to support the ABCT commander on the modern battlefield. This approach will deliver innovation, maximize competition, and ultimately produce a vehicle that will dominate in multi-domain operations for generations. We are not releasing a prescribed set of requirements—we are describing the problem set and giving industry the freedom to be creative and innovative in its approach.

ADVANCED COMBAT ENGINE

95. Senator PETERS. Secretary McCarthy and General McConville, in December 2019 the Army held a demonstration of the Advanced Powertrain Demonstrator, including the Advanced Combat Engine, at the Ground Vehicle Systems Center in Warren, Michigan. This demonstrator is developing capabilities which may be integrated into future systems the Army is developing, including those under the purview of the Next Generation Combat Vehicle Cross Functional Team. Can you please describe the need for the Army to improve its existing powertrain options, including the capability advantage offered by the Advanced Combat Engine over existing engines or commercial-off-the-shelf options?

Secretary MCCARTHY and General MCCONVILLE. The Army began development of an Advanced Combat Powertrain in 2015 based upon a market survey and analysis that showed available combat powertrains are not sufficient to meet anticipated requirements and that engines developed for commercial applications were not sufficient for military operating conditions without further development. Specifically, a gap in the market existed for combat vehicle platforms in the 45–60 ton weight range. Additional power was needed within the restricted under armor volume of combat vehicles to maintain pace with the force and provide electrical power to support protection, lethality, and communications systems. The Advanced Combat Powertrain, including the Advanced Combat Engine, has the objectives to improve the power density by 1.5 to 2.0x, increase fuel efficiency by 25 percent, increase electrical power available by 10x, increase mobility (range by an additional 100 miles, speed on grades by 50 percent and accelerate 30 percent faster), and improved thermal management, with the Bradley powertrain as the baseline.

ARMY IN USINDOPACOM

96. Senator PETERS. Secretary McCarthy and General McConville, the Army has begun expanding its role in the USINDOPACOM. Recently, Secretary McCarthy announced "five-month extended rotations to countries like Thailand, the Philippines and Papua New Guinea" and the first deployment of a Security Forces Assistance Brigade to USINDOPACOM. What long-term role do you envision for the U.S. Army

in USINDOPACOM and what is the risk of an expanded role for the U.S Army in USINDOPACOM including the impact of shifting Army resources from more land-centric theatres like Europe and the Middle East?

Secretary MCCARTHY and General MCCONVILLE. The Army has an important role in the greater Indo-Pacific region based on the ideas of all-domain warfare and great power competition. The Indo-Pacific theater is a land force centric environment within a larger maritime theater where most of the regional militaries are land force centric. The Army can most effectively advance national interests and contribute to regional stability and the peaceful resolution of conflicts by establishing regional security partnerships in the South China Sea and Southeast Asia. The Army is currently exercising with regional security partners and plans to employ security force assistance formations. The Army must demonstrate the ability to converge warfighting capabilities across domains at scale to prevail in adversarial competition. The Army will globally posture forces in support of strategic priorities and joint force requirements.

QUESTIONS SUBMITTED BY SENATORS PETERS AND MANCHIN

COVID–19 RESPONSE

97. Senators PETERS and MANCHIN. Secretary McCarthy and General McConville, there are more than 10,000 National Guard servicemembers responding to COVID–19, as of March 25, 2020. Guardsmen in several States have been moved to federally supported Title 32 orders. How is the Army ensuring that frontline National Guard servicemembers responding to this national emergency have access to the personal protective equipment (PPE) necessary to safely and effectively carry out their COVID–19 response mission and what is the Army's plan to ensure National Guard servicemembers who may have been exposed to the virus have access to unique healthcare service which may be required because of this virus?

Secretary MCCARTHY and General MCCONVILLE. We are concerned about the health and well-being of all of our soldiers. Our soldiers are executing missions in support of FEMA and HHS in coordination with their respective State Departments of Health. As a supporting entity to both HHS and FEMA, ARNG soldiers are being provided PPE by HHS in accordance with CDC guidelines. For the few states that are using CSTs to execute certain missions, those personnel have specialized PPE optimized for CBRNE environments. We have issued directives to Commanders to ensure that no soldiers are being asked to conduct any mission for which they are not properly equipped.

ARNG soldiers that are federally funded under 502(f) authorities, while serving under the State orders and guidance are authorized and would receive medical care through Tricare. Army National Guard soldiers responding in a State Active Duty (SAD) must submit a State Workman's Compensation claim for medical care.

QUESTIONS SUBMITTED BY SENATOR JOE MANCHIN III

COVID–19

98. Senator MANCHIN. Secretary McCarthy and General McConville, we are all disappointed that key parts of DEFENDER-Europe 20 are being postponed or canceled due to COVID–19. Do you have any data at this time about both the financial and readiness impacts caused by these cancellations and postponements?

Secretary MCCARTHY and General MCCONVILLE. The Army is moving very quickly to respond to the COVID–19 to protect both the force and the Nation. Due to parts of Defender and other events being postponed or canceled, we have funds that have not been executed. We are working to understand the financial impact once the accounting is complete. We have not seen significant impact to readiness yet, but are concerned the longer the pandemic lasts the greater the possibility there will be a degradation. We are continuing to train at lower levels and Commanders at all levels are assessing their local conditions and modifying training to minimize risk to our force while maximizing our readiness.

INTEGRATED PERSONNEL AND PAY SYSTEM—ARMY (IPPS-A)

99. Senator MANCHIN. Secretary McCarthy and General McConville, the advanced testimony sent to this committee places an emphasis on the people that make up the Army. IPPS-A is one effort that is discussed as a way for the Army to refocus on its people. The IPPS-A fielding plan begins with the National Guard before moving on to the other components. With any type of app or software that stores per-

sonal data, it is vulnerable to cybersecurity issues. What measures are being taken by the Army and your partners to ensure the cybersecurity of this program?

Secretary MCCARTHY and General MCCONVILLE. The Integrated Personnel and Pay System—Army (IPPS-A) Increment II has instituted both Army and Joint measures across its system design, development, testing, deployment, and sustainment lifecycles to continuously assess, test, and validate the cybersecurity controls implemented to protect the system. These measures are tested by the Systems Integrator (CACI), the Army Test and Evaluation Command (ATEC), and DOD's Director Operational Test and Evaluation (DOT&E). There are many Cybersecurity approvals, certifications, and tests that have been performed on the IPPS-A Increment II system. The IPPS-A Cybersecurity Strategy, Incident Response Team, Continuity of Operations Plan and the Cybersecurity service provider ensures that IPPS-A Increment II is employing a secure, defense-in-depth posture through the integration of people, technology, and operations.

REPROGRAMMING

100. Senator MANCHIN. Secretary McCarthy and General McConville, the National Guard is playing an ever-growing and vital role in the COVID–19 response. This is in addition to their already significant contributions to national security alongside their Active and Reserve Component counterparts. Many Members of Congress were frustrated by the recent reprogramming action which moved funds to go to the wall because of its significant impact to the Guard, particularly the National Guard and Reserve Equipment Account. Do you believe that the reprogramming of the $3.8 billion overall, and specifically the $600 million in Army-impacted NGREA [National Guard and Reserve Equipment Account] funds, will affect the Army's ability to respond to the current crisis while continuing to safeguard our Nation's security?

Secretary MCCARTHY and General MCCONVILLE. No, it will not impact the Army's current ability to respond to the COVID–19 crisis or safeguard our Nation's security. Congress has provided funding for our National Guard forces in the recent supplemental package which will enable the National Guard to respond to the current crisis.

CONCURRENT AND PROPORTIONAL FIELDING

101. Senator MANCHIN. Secretary McCarthy and General McConville, according to the testimony received by this committee prior to this hearing, readiness has been and still is the Army's top priority. Programs such as the UH–60M Black Hawk Helicopter, the Joint Light Tactical Vehicle, AH–64E Apache Helicopter, and many future programs and efforts are examples of ways the Army is working to do this while refocusing on great power competition. The National Guard represents approximately one-quarter of the total Army forces, both uniformed and civilian, and one-third of the total uniformed soldiers in the Army. The National Guard and Reserves combined represent over half of the Army's forces. When the National Guard and Reserve represent such a significant portion the Army's forces and capabilities and often perform the same missions, side-by-side with the Active Component, do you feel that they should be organized, equipped, and manned in the same manner as their Active Component counterparts?

Secretary MCCARTHY and General MCCONVILLE. The Army National Guard and Reserves are critical components of the Total Army Force. As the Army fields modernized equipment, the priority will be to those forces expected to make contact with an adversary first—regardless of component. Nevertheless, there are plans to continue to provide the Army National Guard with modernized equipment in parallel or before the Active Component. Examples of systems being fielded to the National Guard in parallel or before the Active Component include the AH–64E Apache to replace older model Apaches, UH–60M Black Hawk helicopters to replace older UH–60A models, the Next Gen Squad Weapon to replace some M4 rifles, IVAS to replace some of their current night vision devices, Stryker double-V hull A1s to replace flat bottom hull Strykers, the M1A2 SEP V3 and V2 Abrams tanks to replace older M1A1 AIM Abrams tanks, and the Soldier Borne Sensor and Short Range Reconnaissance UAVs to add capability at the small unit level.

QUESTIONS SUBMITTED BY SENATOR TAMMY DUCKWORTH

FUTURE VERTICAL LIFT

102. Senator DUCKWORTH. Secretary McCarthy, Congress recently added $76 million to the fiscal year 2020 appropriations bill for the Future Long-Range Assault

Aircraft (FLRAA) program to reduce risk and accelerate delivery of the platform. Both platforms chosen in the recent downselect, the V–280 Valor and SB–1 Defiant, have significant test flight data from the technology demonstrator phase available for use. In your view, does the Army have enough flight data on these two platforms to alter or accelerate the competitive demonstration and risk reduction (CDRR) phase in order to field this platform earlier than projected and if additional resources were available, could the program absorb them in a productive manner this year?

Secretary MCCARTHY. As you identified, the Army recently awarded two Competitive Demonstration and Risk Reduction (CD&R) OTA agreements, and initiated Phase I with fiscal year 2020 funding. Under these OTA's, the Army will be working with industry to refine the requirements and conceptual designs, through a digital engineering approach. This work with industry is vital to understanding the performance, cost, affordability, schedule risks, and trades needed to successfully execute the FLRAA program. The program is currently on schedule and the Army is not looking to accelerate it.

NATIONAL GUARD FULL-TIME SUPPORT

103. Senator DUCKWORTH. Secretary McCarthy and General McConville, as of March 24, 2020, the National Guard activated over 9,000 Guardsman in support of COVID–19 efforts in the United States. I've long been concerned about Guard readiness and continue to be so as activation levels continue to rise. It is my understanding that full-time support (FTS) levels in the Air National Guard are around 80 percent yet the Army National Guard FTS level is only at 64 percent. Given the importance of the Army National Guard's role in supporting the Total Force, and in particular their critical role during the COVID–19 crisis, would you support an increase in Guard FTS billets meets at least 80 percent of their validated requirements?

Secretary MCCARTHY and General MCCONVILLE. We are committed to maintaining readiness in the ARNG. We are tracking the status of ARNG FTS levels and the impact of FTS funding to ARNG readiness. This is an area we will review in our fiscal year 2022 budget.

COVID–19 QUARANTINE

104. Senator DUCKWORTH. Secretary McCarthy and General McConville, I read several news article last week documenting the experiences of soldiers going through COVID–19 quarantine at Fort Bliss and Fort Bragg upon return from deployments to Afghanistan. I have to be frank, the descriptions I have read are not what I would expect from the Army. I get the sense that the Army's return from deployment quarantine planning was rushed and shoddy and may have compromised soldier safety and added to the worries of families awaiting the return of their loved ones. Will you commit to looking into reports that aspects of the return quarantine have been inadequately planned and haphazardly executed and communicating back to the Committee what you have found and how you plan to correct any deficiencies?

Secretary MCCARTHY and General MCCONVILLE. We have looked into all of these reports and have taken immediate action. In these cases, the commands immediately investigated and took corrective actions to remedy any deficiencies. Although we stood these facilities up quickly in response to the Army's order to house Active, National Guard, and US Army Reserve soldiers redeploying from Level 2 and 3 countries, we can assure you that the safety and comfort of our soldiers is our paramount concern. This does not absolve our Commanders of ensuring the health and welfare of our soldiers. In the case of Fort Bliss, the sites selected for our initial quarantine housing are three standard Army barracks on main Fort Bliss plus two training areas frequently used for post-mobilization training. Soldiers are housed in the barracks buildings; each room is 17' by 15' in size, and hosts 4 soldiers. These 4 soldiers share a common area with kitchenette and bathroom (8 1/2' x 15') with 4 soldiers in an adjoining 17' by 15' room. Soldiers are housed with other soldiers arriving on the same day and are separated from soldiers with different quarantine start dates to avoid commingling the distinct quarantine cohorts. The soldiers are allowed to move among their quarantine cohort, but we maintain each quarantine site in a manner designed to protect the safety of the force during their quarantine period. The command at the 1st Armored Division has made several improvements to our quarantine locations, including additional fitness facilities, Morale, Welfare, and Recreation (MWR), and Army and Air Force Exchange (AAFES) services. We encourage soldiers to raise concerns about their living conditions to the chain of command.

INDO-PACIFIC

105. Senator DUCKWORTH. Secretary McCarthy and General McConville, the Army has made efforts in the last several months to bolster our military presence in the Indo-Pacific region. As you both look at the INDOPACIFIC region I would like to hear from each of you what your thoughts are on opportunities in the region. In the next year, what region, sub-region, or country should the Army's primary focus be on to further build partnerships and strengthen the position of free nations in the region.

Secretary MCCARTHY and General MCCONVILLE. The U.S. Army is very committed to strengthening alliances and attracting new partners in the Indo-Pacific region. Since January 2020, we have been actively working to strengthen Army-to-Army relations with Indonesia and Thailand, and will continue to build on the success of recent engagements over the coming year. The U.S. Army is also committed to continuing our close relationship with the Philippine Army through engagements and exercises. Building partnerships is South Asia is also a priority of the Army, particularly with India and Bangladesh where we are working to expand the scope and scale of our exercises, and build interoperability and capacity through education, training, and security assistance. The Army will also maintain strong relationships with traditional allies and partners (Japan, South Korea, Australia, New Zealand, and Singapore) by enhancing interoperability and modernizing together through high-end exercises, security assistance, and armaments cooperation.

MOBILE LONG RANGE FIRES

106. Senator DUCKWORTH. General McConville, I recently reviewed an Urgent Needs Statement from the 173d Airborne Brigade out of Italy. As you know the 173d is one of our premier light infantry units and, given its position in Europe, would likely be one of the first to respond to any crisis in Europe. They are outgunned and outranged against their potential Russian opponents and have requested the fielding of a light, wheeled mobile 105mm howitzer system. As I understand it, this request has not been acted on pending an Army wide review of long range precision fires systems. While I understand the need for measured decision-making regarding equipment it baffles me that when such a system is currently available the Army doesn't seem to be moving rapidly to field it to our forward deployed units who are in great need of more lethal and mobile fire support. Can you commit to me that you will take a look at this needs statement and consider the rapid fielding of such a system? I think it is critical that when we have the tools available we should get them into the warfighter's hands.

General MCCONVILLE. Yes, we review all urgent needs statement and you have our commitment to look into the specifics of this request.

QUESTIONS SUBMITTED BY SENATOR DOUG JONES

ARMY COMBAT FITNESS TEST

107. Senator JONES. Secretary McCarthy and General McConville, the services were congressionally mandated to become gender integrated, and I believe the Army has made great progress in incorporating women into the ranks. I am concerned, however, that the Army's new Combat Fitness Test may have an unintended effect on women soldiers. The gender and age neutral physical standards don't account for the different advantages of pound for pound strength that mostly men benefit from, though the Army does take that into account at other times, such as when calculating combat load. How is the Army going to ensure that the new fitness standards don't reverse the gains the Army is making in gender integration?

Secretary MCCARTHY and General MCCONVILLE. The Army Combat Fitness Test (ACFT) is a predictor of a soldier's readiness for the demands of the modern battlefield. The assessment requires all soldiers, males and females, to meet basic minimum physical standards. These standards ensure that all soldiers are best prepared to survive and win on a gender-neutral battlefield. The ACFT drives balanced and focused physical training that will reduce overuse injuries and unplanned attrition. All research protocols to develop the ACFT reflected the Army's male to female ratio. An appropriate number of males and females, corresponding to the Army ratio, participated in ACFT event validation. Although the biological sex differences between males and females are unequivocal, there is no physiological reason any soldier cannot pass the ACFT at the Black, Gray, or Gold level with appropriate time, motivation, and training. Soldiers are improving their performance over time, with many soldiers, regardless of gender, achieving passing scores on each event of

the ACFT at BCT and AIT. These results stem from appropriate physical training time and proper instruction. Army Senior Leaders will utilize the next year to determine how ACFT performance impacts personnel policies and we are conducting numerous internal training studies to optimize training opportunities for soldiers.

PEOPLE

108. Senator JONES. Secretary McCarthy and General McConville, in your opening statement submitted for the record, you stated that, "One example of investments into our people are the five focused Quality of Life priorities, which include housing, both family and barracks, transforming healthcare, improving and adequately resourcing Child and Youth Services." In examining your budget documents, I noticed that while the total military child population and required child care spaces increased from fiscal year 2020 to fiscal year 2021, your request funds fewer Child Development Service spaces, resulting in a drop of 9 percent (78 percent in fiscal year 2020 to 69 percent in fiscal year 2021) of children able to access care. Can you explain how you are "improving and adequately resourcing Child and Youth Services" if you are funding them at lower levels in fiscal year 2021?

Secretary MCCARTHY and General MCCONVILLE. The Army is taking steps to focus on investments in our people in various ways, to include utilizing the Unfunded Priority List (Unfunded Requirements) process authorized by Congress which includes three Child Development Centers in both Hawaii and Alaska. While the Army programs and builds increased capacity, the Army intends to retain a higher percentage of child care professionals by increasing pay to be competitive with civilian care providers and providing support through the Army Fee Assistance program which already covers 14,000 children. While the Army appreciates the $50 million support from Congress to support Child and Youth Services in the fiscal year 2020 Enacted Budget, we were not able to adjust the request in time to effect the Fiscal Year 2021 President's Budget. Additional emphasis is underway in the POM 22–26 development to improve and resource Child and Youth Services.

DEPOTS

109. Senator JONES. Secretary McCarthy and General McConville, in your opening statement submitted for the record, you stated: "Moreover, the Army's Organic Industrial Base (OIB)—26 depots, arsenals and ammunition plants—manufacture, repair, upgrade and modernize the Army's equipment, and are absolutely critical to both Strategic and Tactical Readiness. We are optimizing the OIB to three primary end states: support current unit readiness across the force; maintain the ability to meet wartime surge requirements; and modernize and retool to sustain the next generation of Army equipment. Through implementation of Repair Cycle Float, a new methodology that links OIB production and workload to Army readiness, we will fundamentally change and improve the way we resource and manage these critical facilities." Anniston Army Depot is in Alabama. They have expressed to me a concern that they will soon have no workload to repair M1 tank turrets or conduct full assembly of the tank. What is the Army doing to ensure full weapon system repair and upgrade skills are workloaded and retained?

Secretary MCCARTHY and General MCCONVILLE. Our depot workload is a balance of modernization and sustainment requirements that meet the National Defense Strategy priorities. The current workload allows the Army to meet near-term readiness goals and the Organic Industrial Base to remain postured to surge in support of any contingency. We have the correct skills and workload to meet the Army's readiness requirements at Anniston Army Depot. OIB Sites have programs in place to cross-train personnel across multiple platforms, which enable us to maximize utilization of our current force, balance and retain skill sets and meet workload requirements, and ensure a breadth and depth of technical expertise is readily available. The skills required across our OIB sites are very dynamic and AMC is continuously evaluating them against the current force and future force requirements.

The Army will continue to address weapons system repair and upgrade capability at the depots by requesting and obtaining access to technical data as weapon systems are upgraded and modernized. The Army will also continue to engage in Public-Private-Partnering agreements with the Original Equipment Manufacturers to ensure that the required skills sets are maintained at the depots and to maximize the capabilities with our long-standing industry partners.

ARMY AVIATION

110. Senator JONES. General McConville, the Army continues to report a critical shortage of pilots and stated that it will increase the pilot training throughput in fiscal year 2021. Do you have sufficient funds in the fiscal year 2020 President's

Budget level to allow you to set the conditions in terms of additional instructor pilots and increased maintenance capability to accept additional students in fiscal year 2021?

General MCCONVILLE. Congress fully supported the requested aviation training budget for fiscal year 2020. The requested aviation training budget in fiscal year 2020 is not sufficient to increase the throughput of Aviator training. The Army is in the process of funding the final $122.6 million of an overall $331 million UFR. $171 million was funded in fiscal year 2019, $37.4 million was saved thru AH–64 modernization efforts at the training base, and the remainder will be funded in fiscal year 2020. This additional funding will enable the training base at Ft. Rucker to meet the required throughput of 1272 initial entry Aviators, and 1555 graduate Aviators to meet Army requirements. The increased throughput at the training base coupled with multiple retention efforts will address the current pilot shortage. We continue to assess the impacts of COVID–19 on our training infrastructure and ability to move students to training.

MISSILE DEFENSE

111. Senator JONES. Secretary McCarthy and General McConville, gentlemen, Alabama is the arguably the home of Army missile defense. Lieutenant General Daniel Karbler, USA met with my office just a couple weeks ago, and I'm excited with the progress the Space and Missile Defense Command is making in developing new systems and working to integrate them into existing formations across the Army. I am, however, concerned with the Army's missile defense capacity. According to your budget request, you are asking for $202 million to convert two Patriot battalions to the new Integrated Air and Missile Defense Battle Command System (IBCS). I know that our Air Defenders are the most deployed units in the Department. Can you speak to the impact that this transition will have upon the operations tempo (OPTEMPO) for the rest of the Patriot units?

Secretary MCCARTHY and General MCCONVILLE. The impact of IBCS modernization on the OPTEMPO of the Patriot Force in fiscal year 2023 and beyond will depend on the Geographic Combatant Commander demand for CONUS-Based Patriot Forces. This Patriot Force consists of 11 CONUS-Based Battalions and 4 Forward Stationed Battalions. The Army planned for 2 Patriot Battalions in IBCS modernization while supporting up to 2 Battalions Forward Deployed. If the deployed steady State exceeds 2 Battalions, an impact to modernization and Deploy to Dwell will occur.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR DAN SULLIVAN

INTEGRATED AIR AND MISSILE DEFENSE (IAMD)

1. Senator SULLIVAN. Secretary McCarthy and General McConville, the Army has indicated that air and missile defense is a top modernization priority. What IAMD efforts are underway and how are they progressing?

Secretary MCCARTHY and General MCCONVILLE. The Army Integrated Air & Missile Defense system performed well in Collective Training, which concluded earlier this month. Due to COVID–19 impacts, 3d Battalion, 43d Air Defense Artillery's upcoming Limited User Test (LUT) has been slightly extended to ensure the health and safety of our soldiers, but should not impact the Initial Operational Test and Evaluation (IOT&E) scheduled 4QFY20. The baseline program integrates Sentinel radar and Patriot components and provides the open architecture upon which the Army will continue to expand, as a key contributor to Joint All-Domain Command & Control (JADC2). We are updating and finalizing the current software version prior to the LUT start date to ensure a successful test event. Finally, the Army is prioritizing follow-on weapon and sensor integration after the baseline Initial Operational Capability in 2022. Those will be formally documented in a Capabilities Development Document Update (for Increment 3).

2. Senator SULLIVAN. Secretary McCarthy and General McConville, can you update us on the Indirect Fire Protection Capability/Iron Dome way ahead?

Secretary MCCARTHY and General MCCONVILLE. The Army will receive the first battery of Iron Dome in December 2020 and the second battery in February 2021. Once we receive those two batteries, we will begin the required training of the soldiers who will man and operate them. Simultaneously, we will attempt to integrate the Iron Dome Systems into our Integrated Battle Command Systems (IBCS). Based on the technical data we have received, we believe that full integration of Iron Dome

into the IBCS architecture will be challenging. We expect that we will end up with two very capable, but standalone, batteries. It is anticipated that the two Iron Dome Batteries will achieve full operational capability by the end of 4QFY21. The Army is currently executing a competitive solicitation for the Enduring Indirect Fire Protection Capability Increment Two solution (IFPC Inc 2). The IFPC Inc 2 solicitation is open to all competitors to conduct U.S. Government and vendor models & simulations, hardware-in-the-loop activities, and a live-fire shoot-off demonstration in 3QFY21. As stated in our report to Congress on February 25, 2020, we do not intend to buy more stand-alone weapon systems that cannot be fully integrated with our Joint Air and Missile Defense capabilities. As such, I am prioritizing the use of the Fiscal Year 2021 funding toward achieving an enduring, integrated capability as quickly as possible.

ARCTIC THREATS

3. Senator SULLIVAN. Secretary McCarthy and General McConville, what do you see as the key threats to U.S. interests and security in the Arctic region, and what will the Army do specifically—as a part of the joint force—to help provide options to the President to help counter these threats?

Secretary MCCARTHY and General MCCONVILLE. Russia and China constitute the primary competitors to U.S. interests and security in the Arctic. Russia likely will continue its aggressive efforts to deny others access and/or presence in the Arctic region, both militarily and commercially. Russia seeks to secure Arctic mineral resources, control the Northern Sea Route, and extend the range of its strategic defenses. China, a self-declared "near-Arctic" State, is also keenly interested in the Arctic for its natural resources, possible shipping shortcuts, and scientific endeavors focused on global climate change. Beijing considers the Arctic an area of shared international interests versus one defined by the sovereignty of Arctic littoral states, thus allowing Beijing open access. As part of the joint force, the Army, in support of the Department of Defense Arctic Strategy, participates in exercises and ensures it has major combat units ready for a variety of contingencies in the Artic. The Army provides forces for 12 Arctic exercises, many of which are conducted with allies, including three exercises that are conducted in Alaska: ARCTIC PEGASUS, ARCTIC EAGLE, and ARCTIC EDGE. The Army will continue to partner with the Joint Force to implement the Arctic Strategy and build the readiness needed to win in the Arctic.

JOINT PACIFIC ALASKA RANGE COMPLEX (JPARC)

4. Senator SULLIVAN. Secretary McCarthy and General McConville, current and past military leaders have referred to JPARC as a "crown jewel" of training ranges due to its expansive space, varied terrain, and nearly limitless training potential. What are your own personal views on JPARC and what specific steps could be undertaken to maximize the utilization and training of this world-class training range?

Secretary MCCARTHY and General MCCONVILLE. The Joint Pacific Alaska Range Complex (JPARC) provides training capabilities for multiple components and services to use for a variety of training from individual to pre-rotational Mission Readiness Exercises, to Joint All Domain Operations (JADO) coordinated by US INDOPACOM. A broad concept to maximize the use of the JPARC would be to provide joint funding for large scale exercises in Alaska. This concept would provide the Joint Force with a training environment of sufficient scale and scope to exercise multi-domain opportunities by linking USN vessels, USAF 5th GEN fighters, and Army assets to achieve cross-domain effects in Cyber, Electronic warfare, space, offensive counter-air, and Long-Range Precision Fires (LRPF). These exercises would improve the Joint Force's abilities to operate, fight, and achieve a decisive edge the MDO environment; would replicate future combat operational environments; and enable a highly trained Joint Force capable of presenting multiple-dilemmas to our Nation's adversaries in competition, crisis, and conflict.

QUESTIONS SUBMITTED BY SENATOR MAZIE K. HIRONO

ARMY MISSILE DEFENSE

5. Senator HIRONO. Secretary McCarthy and General McConville, the Army has made a concerted effort to integrate its missile defense capabilities. As the Army moves toward greater reliance on networks, it's clear that competitors will seek to disrupt, degrade, and defeat those networks. What is being done to mitigate those problems?

Secretary MCCARTHY and General MCCONVILLE. The Army is pursuing a network modernization strategy, aligning internal science and technology efforts, and ensuring that the Integrated Battle Command System (IBCS will be designed to meet and maintain Cybersecurity defense standards. The network modernization strategy will deliver assured network transport, with multiple communication pathways, including leveraging military and commercial satellite services, increasing bandwidth and range through military and commercial satellite and terrestrial networks, incorporating more secure modems, updating gateway architecture, and integrating secure waveforms. The alignment is informing industry research and development efforts through threat-based market research and establishing cooperative research and development agreements to share threat data, while also driving network solutions to counter those threats. Finally, we are conducting biennial survivability and resilience exercises with the Air and Missile Defense architecture to ensure that we understand and correct potential and emerging cyber, electronic warfare, and position, navigation, and timing vulnerabilities.

6. Senator HIRONO. Secretary McCarthy and General McConville, with a movement toward distributed operations, how can we ensure our forces are protected by air defense?

Secretary MCCARTHY and General MCCONVILLE. Air and missile defense (AMD) during distributed operations presents an inherently Joint challenge that requires contributions from all Services. The Army's AMD contribution primarily consists of THAAD, AN/TPY–2, Patriot, Avenger, as well as Counter-Rocket, Artillery, and Mortar (C-RAM) units. The Army will field M-SHORAD and interim Indirect Fire Protection Capability (IFPC) in the FY21 to further expand Army AMD capability and capacity to support the Joint fight. The Army will field the IAMD Battle Command System (IBCS) in FY22 to improve interdependent AMD operations enabling tailorable and scalable force packages. Additionally, we utilize passive defense measures to mitigate the consequences of enemy attacks, as well as employ attack operations to attrit threat capability and capacity. Integration with Joint and Coalition forces is imperative to protect our forces and we will continue to work with our Allies and partners to support the AMD requirements of distributed operations.

7. Senator HIRONO. Secretary McCarthy and General McConville, how much are you conferring with the other Services on working out disparities in common operating picture issues?

Secretary MCCARTHY and General MCCONVILLE. We routinely confer with our Service partners to resolve technical and operational Common Operating Picture (COP) issues at all levels—action officer to department headquarters. Global Command & Control System-Joint (GCCS-J) continues as the primary program of record providing the aggregated standard COP across Combatant Commands (CCMD) and the Joint Force. Near-term, we are increasing shared understanding of any potential COP issues by leveraging experimentation and routine touchpoints, such as the recently completed FY20 Joint All Domain Command and Control (JADC2) Experiments #1 and #2, Joint Warfighting Assessments, monthly Joint Staff (JS) led JADC2 Cross Functional Team CFT) engagements, and developing Joint Concepts for Command and Control (JCC2) in support of Multi Domain Operations.

CLOSE COMBAT LETHALITY TASK FORCE

8. Senator HIRONO. Secretary McCarthy, in March 2018, then-Secretary James N. Mattis established the Close Combat Lethality Task Force in an effort to make combat units more lethal. He had concerns about the erosion of close combat capability relative to threats identified in the National Defense Strategy (NDS). Can you tell me what the status of the close combat lethality task force is and if these efforts will continue in support of the NDS?

Secretary MCCARTHY. The Close Combat Lethality Task Force (CCLTF) will continue efforts to develop, evaluate, recommend, and implement improvements to U.S. squad-level Infantry combat formations and Special Operations Force equivalents, to ensure close combat overmatch against pacing threats, and strengthen the combat lethality, survivability, resiliency, and readiness of our close combat forces. The Army is working closely with our partners in the Marine Corps and Special Operations Command to plan for governance and procedures that maintain the joint purpose of the CCLTF and ensure we continue to make advances in close combat lethality so that our close combat forces are well prepared to support the National Defense Strategy.

9. Senator HIRONO. Secretary McCarthy, has a decision been made on whether the close combat lethality task force will report to the Army?

Secretary MCCARTHY. Yes, on March 27th the Secretary of Defense delegated the authority for the CCLTF to the Army. We have initiated planning to ensure we continue to support our close combat forces. The Army is currently drafting a framework to establish a tri-service governance board between the U.S. Army, the USMC, and USSOCOM to provide oversight, guidance, and prioritization for initiatives supporting our men and women at the tip of the spear and build on the successes of the CCLTF. Concurrently, we are preparing an Army Execute Order that will position the CCLTF in an Army organization with optimal functional alignment for internal command and control, and assign roles and responsibilities for Army staff, commands, and organizations.

READINESS

10. Senator HIRONO. Secretary McCarthy and General McConville, how have you managed to create a balance between protecting the force from COVID–19 and readiness?

Secretary MCCARTHY and General MCCONVILLE. The Army is carefully and deliberately balancing force protection with efforts to sustain readiness. We have initiated a planning process that frames the Army's actions, which include responding, recovering, and restoring capabilities. The Army has followed the Centers for Disease Control and Prevention (CDC) and the Commander in Chief's guidance with respect to social distancing and other protocols. The Army provided this information to the force via Army Orders that have been published and updated since the crisis began. Additionally, the Army directed installations, camps, and posts to increase their Health Protection (HPCON) to protect our soldiers and their families, our DA civilians, and Contractors, and ensure we can continue our mission by minimizing the spread of COVID–19. It is too early to measure any significant impact to readiness, but the longer the pandemic lasts, the greater the possibility there could be a degradation to readiness. In an effort to protect the force, we have migrated to virtual recruiting to sustain the Army's end-strength. Although modified for health protection measures, we are continuing initial entry training, and Commanders at all levels are assessing their local conditions and modifying training to minimize risk to our force while maximizing our readiness.

QUESTIONS SUBMITTED BY SENATOR DOUG JONES

DEFENSE HEALTH AGENCY

11. Senator JONES. Secretary McCarthy, do you think that continuing with the planned Defense Health Agency transition is prudent during the current COVID–19 health crisis? Please explain.

Secretary MCCARTHY. No, I do not think we should continue with the planned transition during the current health crisis. Our Military Treatment Facilities and other medical structures are an integral part of our Army and are key to our ability to respond to national requirements. Effective alignment of authorities, roles, and responsibilities is necessary to allow for an optimal response. The Army was able to rapidly respond to the COVID–19 pandemic because of our unique medical structure. We have committed our ready medical personnel, Public Health Center, Army Medical Command, Medical Research and Development Command, as well as other medical capabilities to treatment, detection, and prevention efforts in support of the national response to the COVID–19 pandemic. The COVID–19 pandemic highlights that removing these key medical structures away from normal Service command and control alignment, will fracture our ability to respond.

DEPOTS

12. Senator JONES. Secretary McCarthy and General McConville, in your response to my paper hearing question regarding Army depots, your response did not address how the Anniston Depot, which is designated as the Center of Industrial and Technical Excellence for combat vehicles (except Bradley), will retain the turret, full assembly, and full tank test skills without full overhaul and repair of the M1 Abrams tank. Will you ensure this is accomplished via the public-private-partnering?

Secretary MCCARTHY and General MCCONVILLE. Yes, we will ensure the Anniston Army Depot (ANAD) will retain the turret, full assembly, and full tank test skills thru public-private-partnering. ANAD will continue to overhaul, repair, and fully assemble the M1 Abrams tanks to preserve skills and support fleet readiness. This will be accomplished thru public-private partnerships (P3), to include General Dy-

namics Land Systems (GDLS) and Honeywell, who have an enduring residence at ANAD. Under the P3 with GDLS, for example, the Repair Cycle Float (RCF) program is underway with PM Abrams M1A2 SEPv3modernization. To further ensure workforce skills retention, PM Abrams' modernization is ongoing at ANAD and expected to continue through FY26.

SPACE FORCE

13. Senator JONES. Secretary McCarthy, in your response to Senator Blackburn's question about space, you stated, "We are working the merger with US Space Force and will divest assets over time. However, we must retain necessary organic space-related capabilities to balance space capabilities across the force and limit operational risk." I understand that you can only speak for the Army, but can you explain what types of personnel/capabilities/units/equipment you are retaining, whether you plan to retain those indefinitely or just until the United States Space Force is fully established, and whether the other branches are taking a similar position?

Secretary MCCARTHY. The Army intends to permanently retain our cadre of Army space professionals who understand both traditional Army operations and space, and who integrate appropriate space-enabled capabilities into Army plans, operations, concepts, and doctrine. We will also retain space-enabled capabilities integrated throughout Army formations, as they are essential to effective combat operations on land, and will continue to evolve these service-unique assets to enable multi-domain operations in the future. The Army will transfer identified capabilities on a schedule that ensures sustainment of the associated operational missions. We believe the Navy has taken a similar approach regarding retention of space expertise and service-unique, space-enabled capabilities currently integrated in Navy systems.

U.S. ARMY MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASES (USAMRIID)

14. Senator JONES. Secretary McCarthy and General McConville, in your response to Senator Reed's question regarding USAMRIID, you mentioned that "Simultaneously, the Army conducted an extensive review of our medical research capabilities and is in the process of implementing changes that will facilitate the availability of these capabilities in the future." Please provide specifics about the changes you referenced and what this committee can do to assist the implementation.

Secretary MCCARTHY and General MCCONVILLE. In February 2020, Army Futures Command (AFC) and U.S. Army Medical Research and Development Command (USAMRDC) collaborated to develop initial options to optimize structure for both USAMRIID and U.S. Medical Research Institute of Chemical Defense (USAMRICD) based on core mission, functions, and capabilities all tied to resources to enable their missions. In support of this effort, key Army Staff agencies enable the optimized structure of USAMRDC, specifically focusing on USAMRIID and USAMRICD, inclusive of their workforce, mission, and facilities. The Army is working to identify a core funding plan in balance with external customers; pursuing a comprehensive Health Affairs Medical Research and Response strategy to inform core roles and functions; and identifying future medical research structures with potential near-termmitigations. The Army needs relief from the statutory requirement to transition Medical Research and Development to the Defense Health Agency, however, to achieve optimization.

SUICIDE

15. Senator JONES. General McConville, I was intrigued by your response to Senator King's question regarding soldier and veteran suicide. You gave quite a thorough description of the transition process. Do you think the system for preventing suicide for soldiers, transitioning soldiers, and veterans needs to be improved? If so, how?

General MCCONVILLE. While we continue to invest in research and look to new or improved initiatives to increase individual resilience, coping, and communication skills, we must keep soldiers connected while in the Army and maintain that connection through the soldier's transition into Veterans Organizations' behavioral assets. Soldiers live in squads; squads are the building blocks of the Army's formations. If you drew a triangle and at the points are "Leader," "Family," and "Peers," this is the framework for how we need to get after the problem. In the Army's initiative "This is My Squad," units focus on the positive aspects of a soldier's life and a greater emphasis on a collectivist culture, or a culture where the group is prioritized over the individual. By shifting soldiers' focus to shared experiences, they can form the unity needed to solve personal crises and combat misconduct. By engaging with fellow soldiers, squad leaders can also better detect personal dilemmas

and crises. Leaders will interact with the soldiers in their squads and they will know those soldiers, their families, and their peers. By knowing our soldiers better, ourCommand Teams and Leaders can develop and adjust programs as required to prevent this unnecessary loss of life. Discussing and recognizing all lives are worth living should be part of initial entry training, in uniform, and especially during transition.