

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2020

WEDNESDAY, MARCH 27, 2019

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10 a.m. in room SD-138, Dirksen Senate Office Building, Hon. Richard Shelby, (chairman) presiding.

Present: Senators Shelby, Alexander, Murkowski, Moran, Hoeven, Boozman, Durbin, Murray, Tester, Schatz, and Baldwin.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

OFFICE OF THE SECRETARY

STATEMENT OF HON. DR. MARK T. ESPER, SECRETARY

OPENING STATEMENT OF SENATOR RICHARD C. SHELBY

Senator SHELBY. The Committee will come to order.

This morning, we are pleased to welcome Secretary Esper and General Milley to the Committee for an update on the Army operations and a review of the 2020 budget request.

The Army is seeking \$182.3 billion in its current request, which is an increase of \$2.4 billion over amounts appropriated for 2019, and while we are here to focus on this budget request, we are also interested in hearing how the Army is executing the money that we appropriated, Mr. Secretary, in 2019.

Readiness remains the cornerstone of the Army's resourcing decisions, and although building and maintaining readiness is the number one priority, it must be balanced against the need to meet manning goals and to modernize and enhance our competitive advantage.

The fiscal year 2020 request slows down the pace of the Army's plan to get to 500,000 active-duty soldiers. The new plan is to add 2,000 troops, as I understand it, in 2020 and subsequent years, with proportionate growth in the Army National Guard and the Army Reserve.

This Committee understands that the budget request before us is informed by the 2018 National Defense Strategy, and that the recent creation of the Army Futures Command has further changed many planning assumptions here.

The American people expect that their military will be adequately resourced and that the funding that they provide for that purpose will be diligently examined to ensure that it is well spent.

To that end, this Committee considers the President's 2020 budget request. We will be looking closely at both the reductions and eliminations that the Army recently undertook and the tradeoffs that were made since the Army defended its previous budget before Congress.

We appreciate your service, Mr. Secretary and General Milley, and look forward to working with you during the appropriations process to meet the needs of the Army in today's complex and strategic environment.

[The statement follows:]

PREPARED STATEMENT OF SENATOR RICHARD C. SHELBY

Good morning, the Subcommittee will come to order.

I am pleased to welcome Secretary Esper and General Milley to the Committee for an update on Army operations and a review of the fiscal year 2020 budget request.

The Army is seeking \$182.3 billion in its current request, which is an increase of about \$2.4 billion over amounts appropriated for fiscal year 2019. While we are here to focus on this budget request, we are also interested in hearing how the Army is executing 2019 funds.

Readiness remains the cornerstone of the Army's resourcing decisions. Although building and maintaining readiness is the number one priority, it must be balanced against the need to meet manning goals and to modernize and enhance our competitive advantage.

The fiscal year 2020 request slows down the pace of the Army's plan to get to 500,000 active duty soldiers. The new plan is to add 2,000 troops in fiscal year 2020 and subsequent years, with proportionate growth in the Army National Guard and Army Reserve.

This Committee understands that the budget request before us is informed by the 2018 National Defense Strategy, and that the recent creation of the Army Futures Command has further changed many planning assumptions.

Moreover, the American people expect that their military will be adequately resourced and that the funding that they provide for that purpose will be diligently examined to ensure that it is well spent.

To that end, as this committee considers the President's fiscal year 2020 budget request, we will be looking closely at both the reductions and eliminations that the Army recently undertook and the tradeoffs that were made since the Army defended its previous budget before congress.

Gentlemen, we appreciate your service and look forward to working with you during the appropriations process to meet the needs of the Army in today's complex strategic environment.

Now I turn to the Vice Chairman, Senator Durbin, for his opening remarks. Thank you.

Senator SHELBY. Senator Durbin.

STATEMENT OF SENATOR RICHARD J. DURBIN

Senator DURBIN. Mr. Chairman, I am pleased to join you in welcoming the Secretary of the Army Mark Esper and the Chief of Staff of the Army General Mark Milley to our hearing to review the Army's budget request for fiscal year 2020. Thank you both for being here to discuss your priorities.

Since this is General Milley's first appearance before the Subcommittee in several months, I want to take this occasion to congratulate you on your nomination to be the next Chairman of the Joint Chiefs of Staff. I think it is an excellent choice, and I am looking forward to working with you in that capacity.

If you name a hotspot in the world, the odds are good that the men and women in the United States Army are there, over 81,000 Army soldiers deployed worldwide: Afghanistan, South Korea, Iraq, Syria, Europe, and beyond.

Many of the decisions made in this budget were focused on China and Russia's ability to match or surpass the U.S. military, despite the fact that the United States spends more on national defense than China and Russia and most of our major enemies combined. In fact, the Army's fiscal year 2020 OCO (Overseas Contingency Operations) budget—request of \$63 billion is itself almost as high as Russia's entire national defense budget this year.

We have already debated privately and personally and will continue to debate how we measure defense budgets, why it is more expensive to put a soldier, American soldier in the field, and the various competitive advantages that perhaps some of our enemies might have. But the fact is, in raw numbers, we are dramatically outspending every other country on earth when it comes to national defense. We do not want to come in second in any war, but at some point, we have to pause, step back, and take a look and ask ourselves, "Is this money really achieving the defense and security that we need as a nation?"

Our non-war defense budget grew by 18 percent between 2017 and 2019, and yet we know our defense budget is growing by leaps and bounds.

With these large budgetary increases, any institution would struggle to responsibly manage the mountains of money that we are pushing into the Department of Defense.

This year, we have a new problem: the President. He is diverting defense funds for a border wall so he can keep a campaign promise.

On Monday, Congress learned that the \$1 billion in excess Army pay and benefits will not go back into the Army and other military priorities but will go to build the President's wall.

The President also wants to cancel \$3.6 billion in military construction projects that the Army and other services asked for last year so he could build his wall. How will those military construction needs be met?

The President's appointees hope Congress gives them the money in the next year's budget to make up for what they are taking out of this year's budget. Meanwhile, we have no answers on how the armed forces are going to pay for pressing readiness issues this year, like repairing bases from natural disasters, paying the cost of deploying soldiers and the National Guard to our border.

So it would appear the President is really building his wall at the expense of America's military. So what we have seen, what we have seen to be seeing, is that the Congress and the military services are seeing dramatic changes in the way we establish a defense budget.

Some of the ordinary practices between Congress and the Department of Defense when it comes to reprogramming and consent from Congress are being pushed aside in the name of this wall. This should be extremely concerning to all of us and every American, each of whom is asking for clear answers to who is being held accountable for spending tax dollars and is the military still the President's top priority.

We have many other issues to discuss with this panel, and I have only mentioned a few. I look forward to the testimony about efforts to overhaul the Army acquisition, cut waste, and move on to our top priorities.

[The statement follows:]

PREPARED STATEMENT OF SENATOR RICHARD J. DURBIN

Mr. Chairman, I am pleased to join you in welcoming the Secretary of the Army, Mark Esper, and the Chief of Staff of the Army, General Mark Milley, to our hearing to review the Army's budget request for fiscal year 2020. Thank you both for being here to discuss your priorities to maintain and modernize our great Army.

Since this is General Milley's first appearance before the Subcommittee in several months, I would also like to congratulate him for his forthcoming nomination to be the next Chairman of the Joint Chiefs of Staff. Not many military promotions are announced by tweets in early December, but I am certain that the Senate will receive the standard paperwork on General Milley's nomination at the appropriate time.

GROWING DEFENSE BUDGETS TO COUNTER EMERGING WORLD THREATS

If you name a hot spot in the world, the odds are good that the women and men of the United States Army are there. Over 81,000 Army soldiers are deployed worldwide in Afghanistan, South Korea, Iraq, Syria, and Europe.

Many of the decisions made in this budget were focused on China and Russia's ability to match or surpass the United States' military capability, despite the fact the U.S. spends more on national defense than China and Russia—and several other countries—combined.

In fact, the Army's fiscal year 2020 OCO budget request of \$63 billion is itself almost as high as Russia's entire national defense budget this year.

Our non-war defense budget grew by 18 percent between 2017 and 2019. And yet, how we can find ourselves struggling to keep up with our adversaries' new technologies remains a puzzle.

RISKS OF MASSIVE BUDGET INCREASES

With these large budgetary increases, any institution would struggle with responsible management of all those funds.

But this year we have an additional concern: the President is diverting defense funds to the border wall so that he can fulfill a campaign pledge.

On Monday, Congress learned that \$1 billion in excess Army pay and benefits will go not toward top military priorities, but to build a border wall that Congress never agreed to fund.

The President also wants to cancel \$3.6 billion in military construction projects that the Army and the other services asked for last year so that he can fund other portions of the wall.

How will those military construction needs get met?

The President's appointees hope Congress gives them money to re-start them in fiscal year 2020.

Meanwhile, we have no answers on how the Armed Forces are going to pay for pressing readiness issues this year, like repairing bases from natural disasters, or paying the cost of deploying soldiers and the National Guard to the border.

So it would appear that the President has taken a hostage, and it is unfortunately our U.S. military.

What we seem to be seeing is that the Congress and the military services are both losing control of a defense budget that is escalating very quickly.

This should be extremely concerning to every American, each of whom is owed clear answers to who is accountable for spending their tax dollars.

CONCLUSION

We have many other issues to discuss with this panel—only some of which I have mentioned. I look forward to hearing from Secretary Esper and General Milley about their efforts to overhaul Army acquisition, cut waste, and move out on their top priorities.

Senator SHELBY. Secretary Esper, General Milley, we again welcome you to the Committee.

Secretary, your written testimony and the General's written testimony will be made part of the record. You proceed as you wish.

SUMMARY STATEMENT OF HON. DR. MARK T. ESPER

Secretary ESPER. Chairman Shelby, Ranking Member Durbin, and distinguished members of the Committee, thank you for the opportunity to appear before you today.

I want to first thank Congress for helping us reverse the readiness decline that developed following several years of budget uncertainty. Because of the strong support provided in the fiscal year 2018 and fiscal year 2019 budgets, we have increased the number of fully-ready Brigade Combat Teams by 55 percent over the past 2 years. However, I am confident we would prevail against—while I am confident we would prevail against any foe today, our adversaries are working hard to contest the outcome of future conflicts.

As a result, the Army stands at a strategic inflection point. If we fail to modernize the Army now, we risk losing the first battles of the next war. For the past 17 years, the Army bore the brunt of the wars in Iraq and Afghanistan. For over a decade, we postponed modernization to procure equipment tailored to counter insurgency operations.

Our legacy combat systems, designed for high-intensity conflict, entered service when I joined the Army in the early 1980s. While they dominated in past conflicts, incremental upgrades for many of them are no longer adequate for the demands of future battle, as described in the National Defense Strategy.

We must build the next generation of combat systems now before Russia and China outpace us with their modernization programs.

Despite Russia's looming economic difficulties, they are steadily upgrading their military capabilities. In addition to field testing their next-generation T-14 Armata tank, they continue to advance the development of their air defense and artillery systems; and when combined with new technology, such as drones, cyber, and electronic warfare, Russia has proven its battlefield prowess.

We have no reason to believe that Moscow's aggressive behavior will cease in the short term. Russia's blatant disregard for their neighbors' sovereignty, as demonstrated in Ukraine and Georgia, is a deliberate strategy meant to intimidate weaker states and undermine the NATO alliance.

In the long run, China presents an even greater challenge. They continue to focus their military investments in cutting-edge technologies, such as artificial intelligence, directed energy, and hypersonics. Beijing's systematic theft of intellectual property is also allowing them to develop the capabilities cheaper and faster than ever before.

Additionally, China's coercive economic practices are expanding its sphere of influence in ways contrary to our Nation's interests.

To deter the growing threat posed by great power competitors and to defeat them in battle, if necessary, we must leap ahead to the next generation of combat systems, and we must do so now.

Over the past year, the Army took a major step forward in reorganizing its entire modernization enterprise with the establishment of Futures Command. In doing so, we stripped away layers of bu-

reaucracy and streamlined our acquisition process while achieving unity of command and greater accountability.

Guided by our six modernization priorities, Army Futures Command is hard at work developing the systems needed to maintain battlefield overmatch in future conflicts.

When we received our budget this time last year, we felt that it was unreasonable to ask Congress for the additional 4- to \$5 billion needed annually to fund our modernization without first looking internally to find the necessary resources. As a result, the Army senior leaders took an unprecedented initiative to comprehensively review every Army program.

Our goal was simple: Find those programs that least contribute to the Army's lethality and reallocate those resources into higher priorities. After over 50 hours of painstaking deliberations, we eliminated, reduced, or delayed nearly 200 programs, freeing up over \$30 billion over the next 5 years. We then reinvested this money into our top priorities, those systems and initiatives we need to prevail in future wars.

The Army will continue to ruthlessly prioritize our budgets to provide a clear predictable path forward that will achieve our strategic goals. That process is under way now as we develop next year's budget.

Support for the Army's fiscal year 2020 budget is critical to building the Army the Nation needs and demands. Those who are invested in legacy systems will fight to hold onto the past, while ignoring the billions of dollars in opportunity created by our investments in new technologies and what it means for the Army's future readiness.

While change will be hard for some, we can no longer afford to delay the Army's modernization. We believe we are following the sound guidance conveyed to us by many of you.

In this era of great power competition, we cannot risk falling behind. If left unchecked, Russia and China will continue to erode the competitive military advantage we have held for decades.

The Army has a clear vision, which I ask be entered into the record.

Senator SHELBY. Without objection.

[The information follows:]

The purpose of the Army Vision is to guide the development of a modern, ready, and lethal Army prepared to meet the nation's needs over the next 10 years, and is articulated as follows: "The Army of 2028 will be ready to deploy, fight and win decisively, against any adversary, in a joint, multi-domain, high-intensity conflict. The Army will do this through the employment of modern manned and unmanned ground combat vehicles, aircraft, sustainment systems, and weapons, coupled with robust combined arms formations and tactics based on a modern warfighting doctrine and centered on exceptional Leaders and Soldiers of unmatched lethality."

The Army will further achieve this vision through the following five objectives in the coming years: man, organize, train, equip, and lead. We will ensure that our Soldiers, civilian workforce, and their families enjoy the professional opportunities and quality of life they deserve. From the top down we must also remain committed to the Army Values. The Army is at its best when we work and fight as one team, and our Army Values, coupled with our Warrior Ethos, will guide and serve us well as we face the challenges ahead.



THE ARMY VISION

The United States Army is the most lethal and capable ground combat force in history. It has proven this in multiple conflicts, across a broad spectrum of operations, in various locations around the world, defending the Nation and serving the American people well for over 240 years. The key to this success has been the skill and grit of the American Soldier, the quality of its Leaders, the superiority of its equipment, and the ability of the Army – Regular, National Guard, and Reserve – to adapt to and dominate a complex and continuously changing environment as a member of the Joint Force.

As we look ahead, near-peer competitors such as China and Russia will increasingly challenge the United States and our allies in Europe, the Middle East, and the Indo-Pacific region. At the same time, we should expect these countries' arms, equipment, and tactics to be used against us by others, including threats such as North Korea and Iran, failed states, and terrorist groups. Our adversaries' ambitions and the accelerating pace of technological change will create challenges and opportunities for the Army's battlefield superiority.

Meanwhile, the many demands on the Nation's resources will put downward pressure on the defense budget in the future, forcing the Army to continue making difficult choices about how it spends scarce dollars to meet national objectives and compelling us to become ever more efficient. A continued commitment to strengthening our alliances and building partnerships will help offset these challenges.

The Army Mission—our purpose—remains constant: *To deploy, fight, and win our Nation's wars by providing ready, prompt, and sustained land dominance by Army forces across the full spectrum of conflict as part of the Joint Force.* The Army mission is vital to the Nation because we are a Service capable of defeating enemy ground forces and indefinitely seizing and controlling those things an adversary prizes most – its land, its resources, and its population.

Given the threats and challenges ahead, it is imperative the Army have a clear and coherent vision of where we want to be in the coming years so that we retain our overmatch against all potential adversaries and remain capable of accomplishing our Mission in the future. As such, the **Army Vision**—our future end state—is as follows:

The Army of 2028 will be ready to deploy, fight, and win decisively against any adversary, anytime and anywhere, in a joint, multi-domain, high-intensity conflict, while simultaneously deterring others and maintaining its ability to conduct irregular warfare. The Army will do this through the employment of modern manned and unmanned ground combat vehicles, aircraft, sustainment systems, and weapons, coupled with robust combined arms formations and tactics based on a modern warfighting doctrine and centered on exceptional Leaders and Soldiers of unmatched lethality.

To achieve our Vision, the Army must meet the following objectives in the coming years:

- **Man.** Grow the Regular Army above 500,000 Soldiers, with associated growth in the National Guard and Army Reserve, by recruiting and retaining high quality, physically fit, mentally tough Soldiers who can deploy, fight, and win decisively on any future battlefield.
- **Organize.** Ensure warfighting formations have sufficient infantry, armor, engineer, artillery, and air defense assets. Units from brigade through corps must also have the ability to conduct sustained ground and air Intelligence, Surveillance, and Reconnaissance; Electronic Warfare; and cyber operations to shape the battlefield across all domains. Aviation, additional combat support, and robust logistical support must be readily available to units.

- Train. Focus training on high-intensity conflict, with emphasis on operating in dense urban terrain, electronically degraded environments, and under constant surveillance. Training must be tough, realistic, iterative, and dynamic. Continuous movement, battlefield innovation, and leverage of combined arms maneuver with the Joint Force, allies, and partners must be its hallmarks. This training will require rapid expansion of our synthetic training environments and deeper distribution of simulations capabilities down to the company level to significantly enhance Soldier and team lethality.

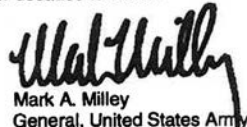
- Equip. Modernize the force by first reforming the current acquisition system and unifying the modernization enterprise under a single command to focus the Army's efforts on delivering the weapons, combat vehicles, sustainment systems, and equipment that Soldiers need when they need it. This modernization includes experimenting with and developing autonomous systems, artificial intelligence, and robotics to make our Soldiers more effective and our units less logistically dependent.

- Lead. Develop smart, thoughtful, and innovative leaders of character who are comfortable with complexity and capable of operating from the tactical to the strategic level. We will build a new talent management-based personnel system that leverages the knowledge, skills, behaviors, and preferences of its officers and noncommissioned officers. This system, when coupled with more flexible career models, will enable the Army to better attract, identify, develop, and place these leaders to optimize outcomes for all.

To achieve and sustain these objectives given the uncertainty of future budgets, the Army must continually assess everything we do, identifying lower value activities to discontinue and ways to improve what we must do, in order to free up time, money, and manpower for our top priorities. Trusting and empowering subordinate leaders will facilitate both reform and greater performance.

In all these efforts, we will ensure that our Soldiers, civilian workforce, and their Families enjoy the professional opportunities and quality of life they deserve. From the top down we must also remain committed to the Army Values. The Army is at its best when we work and fight as one team, and our Army Values, coupled with our Warrior Ethos, will guide and serve us well as we face the challenges ahead.

Since 1775, the United States Army has proven itself absolutely vital to protecting the American people, safeguarding the Nation, and advancing our interests abroad. This fact remains true today. Our ability to do so will be even more critical in the future as threats continue to emerge and evolve, becoming ever more dangerous and more complex. To remain ready to accomplish our Mission of fighting and winning the Nation's wars, the Army must fulfill the future Army Vision outlined herein. We are confident that with the right leadership, the proper focus, sufficient resources, and sustained effort the U.S. Army will achieve our Vision, remain the world's premier fighting force, and serve the Nation well for decades to come.



Mark A. Milley
General, United States Army
Chief of Staff



Mark T. Esper
Secretary of the Army

Secretary ESPER. With a sound strategy to maintain battlefield overmatch, we are making the tough choices. We now need the support of Congress to modernize the force, and it starts with the fiscal year 2020 budget.

The bottom line is this. We owe it to our soldiers to provide them the weapons and equipment they need, when they need it, to win decisively in future battlefields.

Thank you again for your continued support. I look forward to your questions and appreciate the opportunity to discuss these matters before you today.

Senator SHELBY. General Milley.

**STATEMENT OF GENERAL MARK A. MILLEY, CHIEF OF STAFF,
U.S. ARMY**

General MILLEY. Chairman Shelby and Ranking Member Durbin and distinguished members of this Committee, thank you for the opportunity to join Secretary Esper here today. It remains an incredible privilege for me to represent all of the 1 million soldiers in the regular Army, National Guard, and United States Army Reserve that are arrayed in 18 divisions and 58 Brigade Combat Teams and deployed with over 180,000 soldiers today in 140 countries worldwide on freedom's frontier.

While much of our testimony today and your questions will focus on the Army's challenges and how to make us stronger and more lethal, it is important to note up front for you, the Committee, for the entire Congress, for the American people, our allies, and perhaps, most importantly, to our adversaries that the United States Army is highly capable today. We are globally deployable today on very short notice. We can go anywhere in the world. We have the training, the equipment, the people, and the leaders to prevail today in ground combat against anyone, anywhere, anytime.

I concur with Secretary Esper's comments on the threats posed by China and Russia, and they are in fact rising. The international order and, by extension, the United States' interests are under increasingly and dangerous pressure. China is a significant threat to the United States and our allies in the mid and long terms, and I would categorize them as a revisionist power seeking to diminish our influence in the Pacific and establish themselves as the controlling regional power in Asia, and they are setting conditions to challenge the United States on a global scale.

Russia seeks to return to global great power and will continue to challenge the United States, not only in Europe, but also in the Middle East, Asia, Africa, the Arctic, and the Western Hemisphere.

Russia continues to undermine NATO (North Atlantic Treaty Organization) as an alliance and does sow dissent throughout the European continent and, as we know, in our own homeland through a variety of means.

Russia remains the only current existential threat to the United States and will likely become increasingly opportunistic in the near term, in my view.

In the last 17 years, our strategic competitors have eroded our military advantages as outlined by Secretary Esper. With your help, starting 2 years ago, we began to restore our competitive advantage, and our recent budgets have helped improve readiness and lay the groundwork for future modernization. And we ask with this budget that you sustain those efforts.

Our goal remains 66 percent, two-thirds, of the active-duty Army Brigade Combat Teams and 33 percent of the National Guard and U.S. Army Reserve units stay at the highest levels of readiness. Those numbers, those levels of readiness, are what we need to be able to align with the strategy that is laid out in the National Defense Strategy, and with continued, consistent, predictable congressional support, we can reach those levels of readiness sometime in 2022.

Specifically, this budget will fund, in terms of readiness, 58 Brigade Combat Teams, 6 Security Force Assistance Brigades for the

total Army, 32 Combat Training Center rotations, to include four for the National Guard, increased prepositioned stocks in both Europe and INDOPACOM and many, many other readiness initiatives.

In terms of modernization, which is really just another term for future readiness, this budget will fund the improved capabilities across our six modernization priorities, which include 31 specific programs that are embedded within them. In addition, it funds 51 other programs that are of significant importance to the Army. In short, it will increase the lethality of munitions across the globe and increase lethality of the Army in the future.

It will also fill very specific solutions that we have identified, reference 17 critical gaps relative to our near-peer competitors of China and Russia, and I can brief you in detail on those in a classified hearing, if you so choose.

Lastly, I want to highlight that this Committee and Congress as a whole has provided us tremendous support over the last several years. We recognize that, and we are committed to applying our resources deliberately and responsibly, understanding that they have been entrusted to us by Congress and the American people. And we will continue to do that going forward to ensure that our soldiers—that we remain with our solemn obligation to our soldiers, that we never send our sons and daughters in harm’s way unless they are properly trained, fully manned, and have the best equipment money can buy and are extraordinarily well led.

We recognize that we the United States Army and indeed we the United States military are extraordinarily expensive. We also believe that our strength preserves the peace globally in terms of great power competition and the awful potential for great power war. We know that the only thing more expensive than preserving the peace is to have a war, and the most expensive is to lose a war.

Thank you again for your continued support to our soldiers and their families, and I look forward to answering your questions.

[The statement follows:]

PREPARED STATEMENT OF HON. MARK T. ESPER AND
GENERAL MARK A. MILLEY

INTRODUCTION

America’s Army stands ready today to deploy, fight, and win our Nation’s wars. The Army has made great progress in recent years, recovering from depleted levels of readiness following extended periods of sustained conflict and reduced defense spending. Our near-peer competitors, however, capitalized on this period to advance their own positions by modernizing their militaries and reducing the overmatch we held for decades. Aligned with the National Defense Strategy (NDS), the Army is pursuing a path to ensure we stay ahead of our competitors and remain ready and lethal into the future.

The Army’s Vision and Strategy outline the force needed to prevail over the threats of the future, along with the plan for building that Army. To accomplish this, the Army’s efforts are focused on three priority areas: building readiness for high-intensity conflict against strategic competitors; modernizing our doctrine, equipment, and formations to conduct multi-domain operations; and reforming our personnel system, business processes, and fiscal management to ensure our resources are put towards the highest priority activities. Additionally, the Army will continue to take care of its people, live the Army Values, and strengthen our alliances and partnerships to sustain long-term success in wartime and peace.

We are grateful to Congress for the strong and timely support provided to the Army in the fiscal year 2019 appropriations. Receiving this funding on time reduced risk to short term readiness and allowed us to make significant investments towards

our six modernization priorities. In order to achieve the defense objectives in the NDS and meet our goals as outlined in the Army Vision, we must receive predictable, adequate, sustained, and timely funding in the future. The Army's total fiscal year 2020 budget request is \$182.3 billion, consisting of \$150.7 billion for base requirements and \$31.6 billion for Overseas Contingency Operations requirements. This request provides the resources the Army needs to build readiness, while modernizing for the future.

STRATEGIC ENVIRONMENT

The Army faces a global security environment that continually grows more competitive and volatile. The challenges are many: the reemergence of great power competition; a resilient but weakening post-World War II order; accelerating technological advancements empowering state and non-state actors; and persistent threats to the Homeland. The Army must be ready now, and in the future, to confront this challenging strategic environment. We must have an Army prepared for high-intensity conflict, modernized to extend overmatch against near-peer adversaries, and trained to fight as part of the Joint Force alongside our allies and partners, all while sustaining our ability to conduct irregular warfare.

The modern battlefield encompasses all domains—air, land, sea, space, and cyberspace—and is increasing in geographic scale. Near-peer competitors, like China and Russia, are aggressively pursuing modernization programs to erode American overmatch. They have developed sophisticated anti-access and area denial (A2/AD) systems, fires, cyber, electronic warfare, and space-based capabilities that generate layers of stand-off to disrupt the deployment of military forces, deny the build-up of combat power, and separate Joint Force capabilities in time and space. These capabilities may embolden more aggressive behavior in the conventional realm. China's military modernization program aims to transform the People's Liberation Army into a modern, mechanized, Information Age force in the next one to two decades and a world-class military capable of strategic force projection and warfighting by mid-century. Their military strategy seeks to protect Chinese interests outside of Asia and into Europe, the Middle East, and Africa. Furthermore, Russia is likely to threaten our interests for the next 20 years as they attempt to regain control of historic spheres of influence and shape European economic and security structures in their favor. Although we may not face China and Russia directly, we are likely to face their systems and methods of warfare as they proliferate military capabilities to others.

Regional state adversaries, namely North Korea and Iran, also present significant challenges as they pursue advanced capabilities and weapons of mass destruction to gain regional influence and ensure regime survival. Additionally, transnational terrorist organizations continue to pose a threat to our Homeland and our interests, as well as our allies and partners. The Army must be prepared to defeat and deter highly capable adversaries while disrupting violent extremists and simultaneously defending the Homeland.

Today, the Army contributes to our Nation's efforts to counter these challenges by providing Combatant Commanders over 179,000 Soldiers in more than 140 countries, including 110,000 Soldiers deployed on a rotational basis. This includes over 30,000 Soldiers supporting operations in the Middle East and Afghanistan; 8,000 Soldiers supporting NATO operations and the European Deterrence Initiative; and over 17,000 Soldiers providing a forward American presence on the Korean Peninsula. Additionally, Army forces remain prepared to respond to other contingency requirements, both abroad and at home. Concurrently, 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 in an increasingly dangerous world.

READINESS

America's Army stands ready today to defeat any adversary that threatens our Nation and our national interests. We have made great progress in rebuilding warfighting readiness, which remains the Army's number one priority as we increase lethality to prepare for the future. Ready forces must be organized, trained, and equipped for prompt and sustained ground combat. This ensures the Army can deploy, fight, and win decisively in high-intensity conflict against any adversary, anytime, and anywhere. Over the past year, the Army balanced our force structure, increased manning in combat units, filled equipment shortfalls, and improved deployability to build readiness across the force. From September 2016 to December 2018, we increased the number of ready Brigade Combat Teams from 18 to 28, and

more broadly, increased readiness across all Army units by nearly 11 percent. We achieved these readiness gains despite sustained operational demand for Army units. Our fiscal year 2020 budget request sustains this momentum, so the Army can achieve our readiness objectives by 2022.

The Army has implemented several readiness initiatives to reorganize for high-intensity conflict against near-peer competitors. We are increasing combat readiness by working to fill our operational units to 100 percent of authorized strength this year and 105 percent of strength by the end of 2020. Furthermore, we reduced the non-deployable rates of Soldiers from 15 percent in 2015 to 6 percent today. We anticipate achieving our goal of 5 percent non-deployable Soldiers by the end of this year. This equates to thousands more Soldiers ready to deploy in support of global contingency operations. We also rebalanced our force structure to increase lethality by initiating the conversion of two Infantry Brigade Combat Teams to Armored Brigade Combat Teams, our most potent battlefield formation. Furthermore, we plan to modestly grow the Regular Army to 480,000 with associated growth in the Army National Guard and the Army Reserve in 2020. This growth will allow the Army to fill critical gaps in the near term in cyber, air and missile defense, and fires while we develop the necessary force structure and end strength needed to execute Multi-Domain Operations.

Another critical element of readiness is training. We overhauled Army basic training to develop more lethal, disciplined, and resilient Soldiers. This includes extending Infantry One Station Unit Training from 14 weeks to 22 weeks. Initial reports show a significant reduction in attrition and injuries with significant improvements in physical fitness, land navigation, and marksmanship skills based on the additional training time and a reduced Drill Sergeant to trainee ratio. Other branches may see similar adjustments through fiscal year 2024.

Army collective training focuses on high-intensity conflict, with an emphasis on operating in complex terrain, electronically degraded environments, and under constant surveillance. Training is tough, realistic, iterative, and task focused. We eliminated or reduced over 85 individual training requirements to unburden commanders and allow them to focus on training their units. In the Army National Guard and the Army Reserve, we increased the training days for select units to increase the pool of reserve component units available to support operational requirements. Additionally, we maximized capacity at our combat training centers to meet Army force readiness requirements. The Army will execute 26 Decisive Action Training Environment rotations for Brigade Combat Teams and six other mission specific rotations for a total of 32 combat training center rotations in fiscal year 2019. Moreover, we continue to develop a Synthetic Training Environment which will integrate live, virtual, constructive, and game-based training environments into a single platform to increase home station training repetitions and enhance training realism in a variety of scenarios and locations.

We also approved the new Army Combat Fitness Test (ACFT) to fundamentally improve our fitness culture, reduce injuries, increase deployability, and increase the probability that a Soldier survives on the battlefield of the future. We have focused our fitness standards on the skills needed to fight in sustained close combat where physical toughness and endurance will be pushed to the extremes of human capacity. We began field-testing the ACFT in 2018 with 63 units across the Total Army and will begin full implementation this year. By the end of fiscal year 2020, the ACFT will be the fitness test of record for all Soldiers.

Increasing readiness is also about improving our equipment. To this end, Army Materiel Command increased the spare parts inventory and ammunition stockpiles. The Army also redistributed equipment to Focused Readiness Units, which remain at higher readiness levels to support global response. Furthermore, we are making progress towards achieving ground and aviation equipment readiness goals Army-wide.

To further improve equipment readiness and enhance our power projection capabilities, the Army uses prepositioned stocks to quickly execute operational plans and conduct contingency operations. We budgeted \$1.7 billion in fiscal year 2019 and fiscal year 2020 to improve the readiness of Army Prepositioned Stocks. Additionally, we initiated a Configured-for-Combat effort to equip Army Prepositioned Stocks with combat enablers such as communications, modernized weapons, and counter-measure systems in order to speed our ability to build combat power. This reduces the time it takes to build combat power by weeks and significantly reduces the amount of strategic airlift previously required to deploy early entry Army forces. Follow-on forces will continue to rely on modern and ready strategic lift assets, especially sealift, to deliver ready and lethal ground forces in support of the Joint Force. We must continue to invest in robust power projection platforms and strategic lift capabilities to ensure we can rapidly deploy and operate anywhere in the world.

Through these readiness initiatives, the Army is getting stronger by the month in manning, training, and equipping the force. With Congressional support, our fiscal year 2020 budget will allow us to continue to increase readiness and build lethality.

MODERNIZATION

While we continue to build readiness, the Army must also prepare for the future. This includes modernizing our doctrine, equipment, processes, and organizational structures to extend our overmatch against any competitor on any battlefield. Guiding our modernization effort is our Multi-Domain Operations concept, which identifies the threats and challenges we will face in the future. Great power competitors like China are developing capabilities to create standoff intended to frustrate our ability to build combat power and maneuver at will. To counter this, the Army will need to integrate our capabilities with the Air Force, Navy, and Marines even more in the future. The Army's new Multi-Domain Operations concept describes how we will synchronize our capabilities across all domains in support of the Joint Force.

The Army is using the Multi-Domain Operations concept to inform future force development through numerous iterations of experimentation and analysis, including field experimentation with Multi-Domain Task Force pilots in the Indo-Pacific region and Europe. Our future success depends on modernized equipment, evolving doctrine, and the organizations essential to ensure overmatch against our competitors. These elements will work in concert to increase our combat capabilities across all domains.

As a major step towards developing the capabilities needed for Multi-Domain Operations, we reorganized our entire modernization enterprise for greater speed and efficiency. Last year, the Army made its most significant organizational change in over 40 years by establishing the Army Futures Command (AFC). We stood up AFC in the innovation hub of Austin, Texas with a focus on providing unity of command and unity of effort for the modernization enterprise. For the first time, one commander is driving concept development, requirements determination, organizational design, science and technology research, and solution development. We located AFC outside of a traditional Army installation to increase their accessibility and ability to collaborate with industry and academia. Through these partnerships, AFC will identify and deliver new capabilities with greater speed and more efficient use of our resources.

To guide AFC, the Army established a clear set of modernization priorities that emphasize rapid maneuver, overwhelming fires, tactical innovation, and mission command. Our six modernization priorities will not change, and they underscore the Army's commitment to innovate for the future. We have one simple focus—to make Soldiers and units more capable and lethal. Over the last year, we identified \$16.1 billion in legacy equipment programs that we could reinvest towards 31 signature systems that are critical to realizing Multi-Domain Operations and are aligned with these priorities. The six Army modernization priorities are:

- Long Range Precision Fires.*—We will improve the range and lethality of cannon artillery and increase missile capabilities to ensure overmatch at each echelon. Army artillery weapons, including Extended Range Cannon Artillery and the Precision Strike Missile, will neutralize and dis-integrate adversary 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 fiscal year 2023. It will protect and support maneuver forces in the close and deep operational maneuver areas with an extended range out to 70km and increased 6–10 rounds/minute volume of fire. The Army has requested \$1.31B for Long Range Precision Fires in the fiscal year 2020 President's Budget to accelerate prototyping and initial fielding.
- Next Generation of Combat Vehicles.*—The Army will modernize the next generation of combat vehicles through technology development, experimentation, and prototyping to ensure overmatch against near-peer competitors. These vehicles will employ greater firepower, mobility, and protection to successfully maneuver on more lethal battlefields. They will have manned and unmanned variants for combined arms maneuver, and be built with future growth in mind. The first prototype will arrive in fiscal year 2021 to accelerate experimentation and initial fielding. We requested \$2.0 billion in the fiscal year 2020 President's Budget to deliver an initial capability.
- Future Vertical Lift.*—We will increase our competitive aviation advantage with next generation aircraft to penetrate contested airspace and support independent maneuver from greater distances through extended range, endurance, and lifting capacity. The most important FVL investments at the moment are

the Army's development of the Future Armed Reconnaissance Aircraft, designed to address the gap left by retirement of the Kiowa, and the Future Long Range Assault Aircraft. An additional investment includes integrating unmanned aerial systems, which we will prototype in fiscal year 2024, for manned/unmanned teaming and improved lethality, situational awareness, and survivability. Over \$797.2M is included in the fiscal year 2020 President's Budget to develop initial designs and unmanned demonstration systems.

—*Army 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. This network includes advanced information technology, hardware and software, and a reduced electromagnetic signature. We have allocated \$2.28B in the fiscal year 2020 budget to build our integrated tactical network as part of our network restructuring.

—*Air and Missile Defense*.—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 Mobile Short-Range Air Defense with directed energy technologies. The fiscal year 2020 budget includes \$1.4 billion to rapidly deliver an initial capability by fiscal year 2022.

—*Soldier Lethality*.—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 fiscal year 2020 budget includes \$1.18B for prototyping, development, and procurement of the Next Generation Squad Automatic Weapon and Squad Rifle, Enhanced Night Vision Goggles, Integrated Visual Augmentation System (HUD 3.0), and Synthetic Training Environment.

Eight Cross Functional Teams (CFTs), aligned under AFC, lead the development of these modernization priorities. The CFTs streamline Army acquisition processes to reduce the requirements process, shorten acquisition time, and, by engaging Soldiers early in development, ensure fielded systems are affordable and meet warfighter needs. This approach demonstrates our commitment to good stewardship of taxpayer dollars. In addition to this organizational realignment, we updated acquisition policies. Our new intellectual property policy will encourage private industry to work with our CFTs to develop innovative solutions to maintain technological overmatch.

The Army is taking a holistic approach to modernization so we can achieve multi-domain dominance by 2028. Next generation equipment, combined with modern doctrine and formations, will allow the Army to maintain overmatch on future battlefields.

REFORM

Over the past year, the Army aggressively pursued reforms to free up time, money, and manpower for our highest priorities and to empower subordinate commanders to make more effective and timely decisions. In addition to our detailed program review process, we are executing the Army Reform Initiative, instituting fiscal discipline, scrutinizing contract management and contract services, and working towards financial auditability. Through these reform efforts, we realigned over \$30 billion across the Future Years Defense Program (FYDP) for higher priority programs to build readiness and increase lethality.

In our most significant reform effort, Army Senior Leaders conducted a detailed review of Army equipping programs for the fiscal year 2019 and fiscal year 2020 budgets. Through this in-depth, time intensive process, we eliminated, reduced, or consolidated nearly 200 legacy programs to reallocate funding towards our modernization priorities. While each of these programs had value, we must continue to make hard choices to ensure we spend each dollar wisely and remain aligned with Army priorities.

Through the Army Reform Initiative, we garnered over 700 ideas to eliminate, delegate, consolidate, or streamline Army policies, programs and practices. Inputs included work efficiencies, business process improvements, and structural realignments. For example, through our installation management reform effort, we are realigning Installation Management Command under Army Materiel Command and consolidating staff functions to garner personnel savings and improve efficiency. This integration of sustainment and installation functions provides the ability to prioritize resources on key requirements for both combat readiness and Soldier and family support. Additionally we have an ongoing headquarters reduction effort

across multiple levels of command. The goal of the Army Reform Initiative is to eliminate redundancy and delegate authorities and resources to the lowest appropriate level of command. This allows for rapid actions and decisions while simultaneously saving resources for higher priorities.

To improve fiscal discipline, we implemented the Command Accountability & Execution Review (CAER) to optimize the purchasing power of the Army's operating budget. This Army-wide program educates Army leaders on fiscal stewardship, updates policies to increase purchasing power, and creates a scorecard of key performance indicators to measure progress. While still early, CAER has generated a marked improvement in the efficient execution of the Army's budget for fiscal year 2018 and we anticipate greater success in fiscal year 2019.

In 2018, contract management and contract services reform saved the Army \$1.6 billion across the FYDP by eliminating contract redundancies, improving contract competition processes, and using data analytics for contracting decisions. We continue to implement category management and increased emphasis on the use of strategic sourcing contracts to improve management of services acquisitions. This year, we found service acquisition efficiencies in Army rotary-wing aircraft and ground system maintenance programs, food services, and the use of advanced data analytics. We saved over \$400 million and are on pace to reach over \$1 billion in budget savings from improved contract management in fiscal year 2019. These savings and their reinvestment into modernization are crucial to the Army and our progress towards the force of the future.

The Army completed its first full financial statements audit in fiscal year 2018, and the audit findings are an important part of our larger reform effort. We fully support these audits, which help the Army identify ways to improve resource management and business practices. We are aggressively implementing corrective action plans and are on track to achieve auditable financial statements across all accounts by fiscal year 2022.

Another major area of reform is the directed reorganization of our medical capabilities across the Army. Readiness is the primary focus throughout this effort because the Army will continue to be responsible for a ready medical force trained in clinical skills that are critical to wartime missions. As we transition medical treatment facilities to the Defense Health Agency, we are working to ensure we retain the necessary combat medical support at each echelon to maintain readiness and deliver premier military healthcare on the battlefield and in garrison. This reorganization provides us an opportunity to optimize the Army medical structure and plan for future medical capabilities.

The Army will continue to pursue savings in time, money, and manpower that we can reinvest into our top priorities. These aggressive reform efforts, will sustain our momentum as we build readiness and increase lethality to prepare for high-intensity conflict against great power competitors.

ALLIES & PARTNERS

America's network of allies and partners is an unrivaled strategic advantage the Army is actively working to enhance. Every day, the Army works to strengthen alliances and build new partnerships through security cooperation and security assistance. A continued commitment to our allies and partners helps us compete against great power competitors and bolster deterrence. In support of our allies and partners we established Security Force Assistance Command (SFAC), which will consist of six subordinate Security Force Assistance Brigades (SFABs)—five Regular Army and one Army National Guard. The SFABs are specialized units whose core mission is to train, advise, assist, enable and accompany allied and partner nations. SFABs reduce the demand on conventional Brigade Combat Teams enabling them to focus on high-intensity conflict against near-peer threats. The Army deployed its first SFAB to Afghanistan in support of the Afghan National Army to validate the proof of concept, and we will apply what we learned to the second SFAB deployment this year.

The Army works with Combatant Commanders to ensure our security cooperation efforts support their priorities as we work to increase interoperability and build partner capability. Interoperability ensures we can train and fight alongside our allies and partners more effectively and efficiently so we are ready to face any threat together. In fiscal year 2018, the Army executed \$115 million on 58 multinational exercises with 95 allies and partners. In fiscal year 2019, we programmed \$165 million for multinational training exercises to increase interoperability.

In Europe, we are leading a multinational battlegroup in Poland as part of NATO's Enhanced Forward Presence mission to deter Russian aggression. Last summer, our Soldiers participated in Exercise Trident Juncture alongside forces

from every other NATO ally and two of our closest partners, Sweden and Finland. This was the largest NATO exercise conducted in recent years, and it demonstrated both the Alliance's commitment and collective defense capability. We will continue these efforts as we prepare for the division-level Defender exercise in 2020, which will exercise the Army's force projection capabilities. We also maintain close training and exercise relationships with Ukraine and Georgia, key partners in the region for promoting peace and security.

Likewise, in the Indo-Pacific region we are deepening cooperation with our allies to protect our national and shared interests. The U.S. Army presence in the Republic of Korea and Japan deters North Korean aggression and protects U.S. interests. Assigned and rotational forces participate in combined training exercises, such as Yama Sakura in Japan and Yudh Abhyas with the Indian Army. These exercises strengthen our relationships and build interoperability. Furthermore, we are testing the Multi-Domain Task Force in exercises through our Pacific Pathways program to determine the right capability mix to counter Chinese A2AD capabilities. We will continue to use regional training and exercises to work with new partners and leverage multi-component and inter-service integration. This helps us to expand the competitive space and counter Chinese influence throughout the region.

We are assisting our partners around the world in building military capabilities to enhance security. The Army, through its security assistance enterprise, supports Combatant Command theater security cooperation plans. We will continue to prioritize security assistance programs to counter key threats and achieve shared defense objectives with our allies and partners.

PEOPLE & VALUES

The Army's greatest strength is our people—the intelligent, adaptable, and professional Soldiers, Civilians, and Families who sacrifice for our Nation. We take care of our people by ensuring our Soldiers are ready for combat with modern doctrine, equipment, and realistic training while simultaneously providing their families with the resources they need to thrive at home. Furthermore, our continued commitment to the Army Values ensures we foster strong and resilient units built on a foundation of trust.

Comprehensive reform of the Army's personnel management system is a top initiative for 2019. To remain the most lethal ground combat force in the world, we must continue to attract, develop, and retain the best people our Nation has to offer. A competitive labor market for America's most highly skilled talent complicates this effort. We thank Congress for the Defense Officer Personnel Management Act (DOPMA) reforms and additional authorities in the fiscal year 2019 NDAA, and we will incorporate these into our new Talent Management Strategy. We are moving the Army towards a market-based assignment process with more flexible career models along with updates to our promotion system and retention incentives.

The Army faced significant challenges in meeting our fiscal year 2018 recruiting goals, however, we remain committed to quality over quantity. Despite these challenges, we recruited over 70,000 new Soldiers into our ranks, the most in any single year since 2010. To meet our fiscal year 2019 recruiting goals, we changed our approach to increase the pool of qualified applicants so we can attract the best talent and improve diversity in our ranks. We restructured our accessions enterprise to ensure unity of effort across the Army, manned our recruiter positions at 100 percent, realigned resources to increase our recruiting capacity, and improved our use of technology. Additionally, we centered this recruiting initiative in 22 major metropolitan areas across the Nation to expand our reach using micro-targeted web advertising and local marketing. This revised strategy expands recruiting across the Total Army to increase awareness of the opportunities for service and to better connect the Army to the American people.

Taking care of Army families remains a top priority, and we are taking steps to improve quality of life programs across our installations. This year we increased staffing rates at Army child care centers, and we are implementing new policies to improve spouse employment opportunities. Given recent reports of deficient conditions in some of our family housing, the Army has taken immediate action to ensure we are providing safe, high quality family housing. We are visiting all Army housing and inspecting all barracks to identify health, life, and safety issues that exist. We will work with the Residential Communities Initiatives (RCI) companies to remediate these issues immediately, and over the long term, to improve work order resolution, customer satisfaction, and communication with residents. We are also reviewing and standardizing partnership agreements and incentive structures to ensure we hold the RCI companies accountable for providing quality housing. The

Army is fully committed to providing a safe and secure environment on all of our installations where our Soldiers and Families can thrive.

The Army Values form the bedrock of our profession and guide us in all that we do. The Army's Senior Leaders have asked everyone to recommit themselves to these Values, and we demand that every member of our Army team treat each other with dignity and respect. Across the Total Army, we continue to focus on eradicating sexual harassment and sexual assault from our ranks. Over the past several years, we have placed a high priority on our prevention efforts, and the Army will continue to improve the effectiveness of our prevention efforts moving forward. This starts by ensuring that the perpetrators of sexual assaults are held accountable and that the victims are protected without fear of retribution. Additionally, we are reinforcing leader responsibility for building a climate of trust and professionalism that emphasizes the Army Values. We are taking a similar approach with other essential programs including Equal Opportunity, Suicide Prevention, Alcohol and Drug Abuse Prevention, and Resilience.

CONCLUSION

The Army mission remains constant: to deploy, fight, and win our Nation's wars by providing ready, prompt, and sustained land dominance by Army forces across the full spectrum of conflict as part of the Joint Force. Our Army is ready today to win in the unforgiving crucible of combat. We are supporting the National Defense Strategy and expanding the competitive space by increasing our lethality through our modernization effort, strengthening American alliances through combined operations and training, and reforming our business practices to be the best stewards of the resources Congress has provided. The Army thanks Congress and the American people for their continued strong support, which enables our ability to accomplish our mission. By providing predictable, adequate, sustained, and timely funding, Congress will ensure America's Army remains the most capable and lethal ground combat force in the world.

Senator SHELBY. Thank you, General.

Secretary Esper, the 2020 budget request and the new Future Years Defense Plan proposes to eliminate, as I understand it, 93 programs and to reduce or delay 93 more. It is my understanding that the Army has realigned \$33 billion to its modernization priorities compared to the previous budget—rather submission.

BUDGET REVIEW PROCESS

Can you, here this morning, shed some light on the budget review process and, specifically, sir, how the underlying assumption and methods for choosing programs for truncation or elimination has occurred?

Secretary ESPER. Yes, sir. The process began about this time last year in the few months prior to the submission we have to make to OSD (Office of the Secretary of Defense) in June, and it was driven by the National Defense Strategy. It was driven by the guidance given to us by Secretary Mattis, and it was driven by our own Army Vision, which I shared with you earlier.

As the Chief and I began the process to review the budget submission, we realized that there was insufficient money in the budget, as it had been planned by the staff, in order to fund all of our modernization priorities. At that point, we decided that we were going to turn the table, if you will, and begin with priority number one and work our way all the way through to priority end.

And we basically began filling up programs in that manner. As we looked at each existing program, we asked ourselves, "Is this program more or less important than a future capability we want to build?" In other cases, we asked ourselves, "Are we building too much of a capability?"

We found also that in some cases we were having—we were upgrading things that really did not justify the return on investment. So we found a number of things throughout the process that caused us to either eliminate, reduce, or delay the builds, and that process is under way right now as we look at next year's budget and beyond.

It took us over nearly 50 hours, session after session, and it did not just involve the equipping budget, but we also looked at the training, the manning, the installations budgets as well to make sure we get every money, all the reform we could out of our existing budgets.

Senator SHELBY. Did any of this have an impact on readiness at the moment?

Secretary ESPER. On current readiness, Mr. Chairman? No, sir. But will have a dramatic impact on future readiness.

Senator SHELBY. In the future. Yes.

Secretary ESPER. Dramatic.

Senator SHELBY. General, does the fiscal year 2020 budget fully fund the 31 CFT programs?

General MILLEY. I believe it does, and I believe we have done a very, very good job in ensuring that.

Senator SHELBY. Okay.

Secretary, the new Army Futures Command has assumed a leadership role over research development in engineering, fiscal control of the science and technology budget, as well as oversight of the requirements development process. Some people have raised concerns over the diminished role of the Assistant Secretary of the Army for Acquisition, Logistics, and Technology under the new structure.

CIVILIAN OVERSIGHT

How will the Army ensure, sir that the proper checks and balances are in place so that appropriate civilian oversight is exercised when it comes to resourcing, acquisition, and technology development here? I know that is a mouthful.

Secretary ESPER. No, sir. It is a very good question.

So, at the end of the day, I am responsible for acquisition.

Senator SHELBY. Okay.

Secretary ESPER. And I delegate those authorities to Dr. Jette, the head of Army Acquisition, Logistics, and Technology. We worked out a very clear directive in terms of the responsibilities as we stood up Army Futures Command collaboratively with General Murray, who runs Futures Command, Dr. Jette, and their teams. Dr. Jette remains the chief scientist, the chief technology officer. He remains responsible for a number of things.

I think what you are finding, though, is a much better connectivity now between our acquisitions side and our requirements side, and that has always been a primary cause of failed or failing programs in the past. But now we have much greater alignment. There is an integration actually between the organizations themselves and far, far fewer lines of bureaucracy between those two organizations and me and chief.

We review programs every week, and we do them side by side with General Murray and Dr. Jette.

DETER NEAR-PEER THREATS

Senator SHELBY. General Milley, I propose this, my last question, to you. Part of the Army's efforts to deter near-peer threats is to focus on strengthening alliances and partnerships in certain regions of the world as a counterweight to our adversaries' increasing influence.

One way to do this is through more large-scale exercises, as you know you have been doing, with the Army's budget. Can you describe here in this setting today some of the planned exercises—not all, I am sure—such as Pacific Pathways, Defender Pacific, and why they are important?

General MILLEY. Thank you, Chairman.

Just briefly, the alliance structure that has been built up over seven decades by the United States and our allies and partners around the world is critical to maintaining the peace, the stability of the world order, and preventing great power war, and we are very fortunate that we have a lot of very good friends and allies throughout the region.

Just the other night, we hosted a reception, and we had, roughly speaking, 101 allied and partner nations come in to that reception. That is over 50 percent of the United Nations. That is a representative sample of the friends and allies we have around the world.

I do not believe that neither Russia nor China nor many other countries could hold a reception and have 101 representatives show up that are friends and allies throughout the world.

So the alliance structure is important to the United States, and we know that. And it is relative to both regions and globally.

The exercise program, engagement programs that we have are critical to that. In the Pacific, we have got about 19 exercises that are being funded in the fiscal year 2020 budget request for I think—I want to say it is about 3 or \$400 million for exercises in just the Pacific.

There is a series of exercises analogous to that in Europe. The combined effect of those exercises demonstrate a resolve and will. They represent assurance to our allies and partners that will be there in a crisis, and it certainly deters our opponents.

Senator SHELBY. Also contributes to readiness and on a large—

General MILLEY. It absolutely contributes to readiness. That is correct, Chairman.

Senator SHELBY. Senator Durbin.

Senator DURBIN. Thanks, Mr. Chairman.

MODERNIZATION

I would like to ask a question or two about modernization. We talked about this in my office yesterday.

Back in 2011, the Army commissioned an internal acquisition review, which made recommendations on changing the Army's procurement process after the Army had canceled 22 programs over the previous 10 years at a cost to American taxpayers of \$3 billion.

One particular program, which I have been following and talking to both of you about for a long time, is the WIN-T program. This was supposed to be a communications network for our Army that

would be modern, protect them, and make sure that we conquered our enemy in battle.

We have had this program, the WIN program, under way for more than 10 years, and now it is being terminated, at a cost to taxpayers of \$6 billion.

While we were drawing up specs and going through the Army procurement process, America was changing every single day. The communications that we all rely on in our pockets were keeping up with these changes; the Army was not. Now we are going to re-invent another communications network.

So I look at this with some skepticism. I started off by asking why does it cost us so much more to protect this Nation than other countries, and part of it, frankly, comes down to waste, just our own inability to spend dollars effectively.

The Army record, which we saw reported on in 2011, is not one that we want to repeat. What can you say about your generation of leadership, Mr. Secretary and General Milley that can give a guarantee to American taxpayers and to our soldiers and our families that we will not continue to make these expensive mistakes?

Secretary ESPER. Senator, I will take first stab at this. I think with regard to the program WIN-T—the Chief knows this better than I do, but the WIN-T was developed at a point in time when the Army was fighting in Iraq and Afghanistan out of stationary bases, with no—with an enemy without the capability to do damage to the systems, if you will. I think after a series of studies and the National Defense Strategy, the Army decided on a move away from WIN-T into a more mobile, a more reliable, and a more capable system that could deal with Russian and Chinese threats.

All the funding that was invested in WIN-T did not go to waste. We are still using and will use for many, many years all the systems developed.

But what we are doing now is exactly what you said. Because commercial technology in this world, in this environment, will continue to develop at a pace faster than what we can develop within the military, we had to procure much, much more from the civilian sector.

And that is why the network, which is one of our top six priorities, is aggressively working on that, as how do we get smaller servers that we can fit in our vehicles and our command posts, that is happening right now. How are we working to develop more tactical radios, that is under way right now.

I see a future where we are constantly changing systems more through software than hardware every couple years or so. How are we doing that? We talked about the reorganization of the Army enterprise underneath Futures Command, which is removing layers of bureaucracy. We took lessons from the Decker-Wagner report, which was profiled up here on the Hill years ago. We have tried to take into consideration to make all the reforms that you have heard about for years to make sure we prototype instead of buy clean sheets of paper, that we test things before we actually procure them. All the lessons learned from the past is what we are trying to adopt as we go forward, and we are doing that now with systems that we have under way.

Senator DURBIN. If you find that there is just something fundamentally flawed in our procurement process that makes this harder, if not impossible, that is our job, is it not, to change the law, if necessary, so that you can procure things on a timely basis that bring the best technology and the best ideas to the battlefield as quickly as possible?

Secretary ESPER. Absolutely, Senator. And the Congress has given us some great authorities in the past few years, like Section 804, which allows us to do mid-tier prototyping, and other authorities to kind of cut through the red tape. That is the biggest thing you hear.

The Chief and I meet with CEOs all the time. It is red tape. It is lack of speed, and for us culturally, what we are trying to move away from is a culture of risk aversion. If we are going to fail, we want fail early and fail cheaply, but we want to experiment and get prototypes out there so we are not spending billions of dollars in 10 or 15 years on, again, PowerPoint designs.

BORDER ACTIVITIES

Senator DURBIN. So let me ask this question. Last year, you could not have anticipated that the President would ask for the dispatching of National Guard and regular Army to the border. We think the costs so far this year will be in the neighborhood of \$350 million. None of that was expected or anticipated in last year's appropriation request.

The President has now taken away a billion dollars and reprogramming funds from the Army for his wall. So how are you going to pay for the \$350 million for border activities that were not anticipated?

Secretary ESPER. The fiscal year 2019 funding that you generously approved and on time was very, very helpful to our readiness and modernization. So the money that came out for that military-personnel wedge that will not affect our plans in terms of readiness and modernization.

Going forward with regard to funding that we have—we have to assess that and figure out how we are going to pay for that. Our comptroller is working up those numbers, and we would have to come back to Congress to do a programming into those accounts.

Senator DURBIN. But used to come to reprogramming requests to us and ask for our consent. What I heard the Secretary of Defense say the other day at a breakfast was now we are going to get notice of reprogramming rather than congressional consent for reprogramming. Is that your understanding?

Secretary ESPER. Senator, I am not aware of what he said the other day with regard to seeking—providing notification rather than consent.

Senator DURBIN. Do you still believe that we will be asked as Congress to consent to reprogramming for this purpose?

Secretary ESPER. I cannot speak for him on that.

Senator DURBIN. Thank you.

Senator SHELBY. Senator Alexander.

Senator ALEXANDER. Thank you, Mr. Secretary and General. Thank you for being here, and thank you for serving our country.

MILITARY SPOUSES AND READINESS

Let us talk about military spouses. If spouses cannot get jobs, it affects readiness. It affects a member's decision about whether to stay in the Army, and one survey shows the obvious, which is that two-thirds of spouses state that frequent moving causes them to quit or change a job. Another study showed that underemployment of military spouses is as high as 35 or 40 percent.

Eight or 10 years ago, when General Petraeus was at Fort Campbell, we worked with Holly Petraeus, when I was a new Senator, on some of those issues.

One of the solutions was to get States to work together to eliminate some of the barriers that frequently moving families have when spouses apply for jobs. It does not help much if 3 months before you are about to transfer, the spouse gets the job.

But, Mr. Secretary, Senator Blackburn and I met with you in your office, and you expressed your concern about this issue and said it is even hard for you when hiring spouses for Federal jobs.

So my question is, Is there not some sort of fast track at least for some jobs, like child care on a military base—

Secretary ESPER. Yes, sir.

Senator ALEXANDER [continuing]. Where a spouse could be hired quickly, or is there not some initiative that you could take with governors who may not be as aware of this as they should be—governors frequently change jobs—and in their States create some fast tracks for military spouses in there? What can you do about this?

Secretary ESPER. Yes, sir. This is a very personal issue for me. During my time on active duty, my wife could not get a job when we were at Fort Benning or in Italy because of, frankly, discrimination against Army spouses at the time, and so as I have traveled with the Army—and I have been to Fort Campbell and JBLM and Schofield Barracks and talked to spouses—two issues that come up over and over are spousal hiring and child care. And they are related.

I think our spouses are highly qualified and underemployed, and so the Army has taken about a dozen or two initiatives to do this. I have now sent out directives that allow for—after you get your FBI background check for a child care center, you can do on-site supervision of children. We have worked with—

Senator ALEXANDER. How long will that take?

Secretary ESPER. That should take now less than 3 weeks for hiring.

Senator ALEXANDER. So I move to Fort Campbell. I apply to work at the childcare center there, and within a month, I might be able to start work?

Secretary ESPER. Yes, sir. And even better, what we have done is we have instituted a system where we have—it is called the Child and Youth Services Employment Tool. So once you get your background check, rather than every time you go to a new assignment, a new installation, and going through the check again, we have your name in a database. We will hold it for at least 5 years, and you can seamlessly move from base to base to base and get hired immediately. That is another thing we are doing to make sure we address this problem because it is happening out there.

There are other authorities I am working with DoD on. I have talked to some of you about direct hiring authority for our spouses.

Senator ALEXANDER. What do you need for direct hiring authority? Does that need to be a part of a piece of legislation?

Secretary ESPER. Yes, sir, it would need to be because it is currently regulated, I think, under Title 5, and what it would do is allow us to skip some processes where you have to go do this worldwide competitive source selection.

Senator ALEXANDER. If we were to give you that kind of authority, would you be prepared to implement it?

Secretary ESPER. Oh, absolutely. Yes, sir.

Senator ALEXANDER. And would it be wise to do it as a pilot program, or should it just be blanket authority?

Secretary ESPER. Well, we have direct hiring authority for specialties now like engineers and doctors and nurses, where they are very critical.

But, look, taking care of our families and our kids to me is very critical as well.

Senator ALEXANDER. Well, we could expand the kind of direct hiring authority you now already have.

Secretary ESPER. Yes, sir.

Senator ALEXANDER. Is that what you are saying?

Secretary ESPER. Absolutely. The authority I have for direct hiring is extended to me by OSD for certain career fields. To give it to the Army—actually to all of DoD because Navy faces this, the Air Force faces this as well—would allow us to quickly hire our spouses the instant—

Senator ALEXANDER. Would it be appropriate to ask you to give us some technical advice about language that would be most effective—

Secretary ESPER. Yes, sir.

Senator ALEXANDER [continuing]. In helping the Army deal with this? Because I do not see any need for us to wait.

Secretary ESPER. I would gladly do—

Senator ALEXANDER. I know Senator Blackburn feels the same way. She is a member of the Armed Services Committee, and I think between this Committee and that Committee, that in this year's appropriations bill or authorization bill that we should take some steps to make it easier for the Army to hire spouses before you get down to the last 2 months of a tour of duty. And I think it is one simple thing we can do to improve readiness.

So I would welcome a letter from you to Chairman Shelby and Ranking Member Durbin and a copy to me and other members—

Secretary ESPER. Yes, sir.

Senator ALEXANDER [continuing]. Explaining what our options might be.

Secretary ESPER. I will absolutely do that.

And the other part you mentioned that we are working on is engaging with States. Tennessee, for example, as I recall when I visited Fort Campbell last year, has a program whereby they will recognize a spouse's teaching credential. So if you arrive, you could go out and teach immediately either at Fort Campbell or in Clarksville, and you do not have to wait for a second set of credentials offered by the State.

Senator ALEXANDER. Well, my time is up, but governors like to compete with each other. I think if you went to the Governor's Conference in February or in the summer and featured a couple of governors doing that, the others would get jealous and try to outdo them by the next year, and I would suggest you do that.

Secretary ESPER. Yes, sir. Thank you.

Senator ALEXANDER. Thank you.

Senator SHELBY. Senator Tester.

Senator TESTER. Thank you, Mr. Chairman, Ranking Member Durbin, and I want to thank both you, Mr. Secretary and General Milley, for being here today. Thank you for your good work and the people-that-you-represents good work.

I kind of want to just kind of get some basic information to begin with. Aviation training, what does that include? Either one can answer.

AVIATION TRAINING

General MILLEY. Aviation training is flight hours for the pilots and crew, gunnery, navigation, and then for the ground crews, it would be things like maintenance.

Senator TESTER. Okay. And what about mobilization? What does that include?

MOBILIZATION

General MILLEY. Mobilization is the mobilization of the reserve component, the National Guard——

Senator TESTER. Strictly for reserve? Strictly for reserve?

General MILLEY. Yes. The term “mobilization” refers to the reserve component, the National Guard, and the United States Army Reserve and the specific laws that are required in order to mobilize and activate under presidential authority.

Senator TESTER. Okay. Right now, what do you have for current end strength of active-duty Army?

END STRENGTH GOALS

General MILLEY. Right now, we are at, as of today—or I guess last week—we are at 476, 477 for the regular Army.

Senator TESTER. Okay.

General MILLEY. The Guard is less than that——

Senator TESTER. That is fine.

General MILLEY [continuing]. And the Army Reserve is less than that.

Senator TESTER. That is okay. For fiscal year 2019, you had originally requested 487,500.

General MILLEY. That is correct.

Senator TESTER. This week, we received an end-strength request of 478.

General MILLEY. That is correct.

Senator TESTER. I listened to your opening statements, and I agree with you. Russia, China, North Korea, Iran. It is a dangerous world. Tell me the justification for that reduction.

General MILLEY. A couple of things. One is that we missed our recruiting goal last year——

Senator TESTER. Yes.

General MILLEY [continuing]. By 6,500 in the regular Army and another 3,000 in the Guard and Reserve.

Senator TESTER. Yes.

General MILLEY. So we assessed ourselves. We did an After Action Review. We recognized the recruiting environment that is out there. We do not think recruiting at those numbers are achievable this year.

Senator TESTER. Okay.

General MILLEY. We will want to grow the Army with modest growth, so we—through the analysis, we settled on about a 2,000-soldier increase and modest growth that would go to flesh out the existing units in the infrastructure today. So we settled on a 2,000-soldier increase as the request to Congress in the 2020 budget.

Senator TESTER. And help me out here. Is that traditionally what has been done when goals have not been met? You lower your goals?

General MILLEY. Let me point out also, yes, we missed the recruiting goal, but we assessed into the regular Army, 70,000 soldiers, which is a 10-year high.

Senator TESTER. Oh, sure.

General MILLEY. So that was—even though we missed it, we set the bar very high is what we did.

And we were warned, in fairness. Secretary Mattis, then Secretary Mattis, he told both me and Secretary Esper that those numbers were very high and were going to be hard to achieve, but we wanted to set that bar high. And we were not willing to compromise any standards for soldiers. So 70,000, though, is greater than the Canadian and Australian armies combined, so it was a pretty good recruiting year.

Senator TESTER. But we are better than they are.

General MILLEY. Roger that.

Senator TESTER. 487,500 was the request.

General MILLEY. Yes.

Senator TESTER. Now we are at 478.

General MILLEY. That is correct.

Senator TESTER. Basically—and correct me if I am wrong—about zero growth. I mean, you got people that are retiring and people you brought in, but overall end strength is about zero growth, correct?

General MILLEY. No.

Secretary ESPER. No, sir.

General MILLEY. It should be 2,000 more.

Senator TESTER. 2,000.

General MILLEY. Per year.

Senator TESTER. That is fine.

General MILLEY. Yes.

Secretary ESPER. The other thing that you do not see in here is our organizational changes that we are making that will push more soldiers out into the combat units.

Senator TESTER. Okay. So what is the end strength? What should the end strength be 5 years from now?

Secretary ESPER. Our goal is to be above 500,000 by 2028. We will have a more certain number in the next year or so once we—

our Multi-Domain Operations is war game through iterations. I suspect it will be well above 500,000, but I cannot tell you what that is right now. But we know we need to be above 500,000.

UNFUNDED PRIORITIES

Senator TESTER. Okay. Very quickly, you talked about initially what the aviation training was and what mobilization was. These are unfunded priorities for the Army.

General MILLEY. No.

Secretary ESPER. No, sir. They are funded.

Senator TESTER. They are funded?

General MILLEY. They are not fully funded. They are funded. So, ideally, for aviation flight hours, as an example, you want 14.5 hours per pilot per—

Senator TESTER. Right. They underfunded by about—aviation training, for example, is underfunded by about \$161 million. That is what my brain trust tells me.

General MILLEY. That is right in the range, yes.

Senator TESTER. And mobilization is underfunded by about \$127 million, correct?

General MILLEY. Yes.

Senator TESTER. Okay. So we are not funding to the level that you think you need for aviation training and mobilization of the Guard and Reserve.

So the question I have is, Do you have any ability to push back when the President takes a billion dollars out of your budget and you have unfunded priorities that are not fully funded, or do you just have to do it?

General MILLEY. Well—go ahead.

Secretary ESPER. Senator, at the time last fall when we realized that we had this military-personnel wedge of a billion dollars that we could not fill, we turned it back in, if you will, came to the Congress, I think apprised the committees a little bit later.

Senator TESTER. Yes.

Secretary ESPER. And at that point in time, we said, “Look, our 2019 budget is sufficient for readiness and modernization, but if we could keep some of that money, we could improve readiness and modernization with this much money.

Senator TESTER. Okay.

Secretary ESPER. And then that goes to OSD, to the Acting Secretary, for adjudication.

Senator TESTER. I just want to make a real quick comment because I am over time. First of all, thank you for what you do. You guys do a hell of a job, okay? I think what we have got right now is we have got a President who wants to build a southern wall and wants to change the border of our southern border and has taken our military readiness to do that.

We have got to stand up to this, folks, and I am saying as Senators—not you, but us—if we do not stand up to this, we are going to regret it.

Thank you.

Senator SHELBY. Senator Moran.

Senator MORAN. Mr. Chairman, thank you.

Secretary, General, welcome, and thanks for being here.

First of all, General Milley, I want to extend my congratulations to your Vice, General McConville, for his nomination to become the next Army Chief of Staff. I know he is a key part of your team, and I look forward to working with him.

Secondly, to the Secretary and to you, I want to recognize the significant accomplishment of our Army and its partners in the anti-ISIS coalition. Four years ago, the Islamic state controlled territory larger than the size of Great Britain, and as of last week, that no longer exists. There is no territory at all.

To our soldiers, to the Army, and our allies, thank you for your efforts and your resiliency.

I want to make certain I have time to get to a couple of topics. So I am just going to raise this I suppose with you, General Milley. It is in regard to the Army's stake in what is called the ATEAM of the Kansas National Guard, which restores tank engines and transmissions. It is an asset to the big Army, to the Army Guard and to foreign partners, and there are still issues that need to be resolved with the Materials Command and the Guard that I need your help to accomplish. And I assume if I ask you if you would do that, the answer would be you would help me?

General MILLEY. Of course, Senator.

Senator MORAN. Thank you. I am glad I am able to predict your answers.

[Laughter.]

MODERNIZATION AND RESEARCH AND DEVELOPMENT

Senator MORAN. General Milley, it is clear to me that the Army is focused on modernization, divesting specific programs to reinvest in the Army elsewhere. When we met in my office, we talked extensively about how Congress can support those endeavors to modernize.

One of the things that is evident to me is investment in research and development, R&D. It is—I think the most cost-effective and expedient partner in that effort would be academia, and I understand that we are working with your staff to have General Murray and the Army's Futures Command staff visit universities in Kansas in applied research and prototyping with that expertise, with applied research and prototyping expertise. And I thank you for that cooperation in getting General Murray and his team to see what is available, to assist in modernization.

In addition to R&D side of universities, I am also eager to learn about the testing of prototypes in the field. We have previously discussed the Big Red One soldiers at Fort Riley—and again, Mr. Secretary, I thank you for being there—their ability to conduct complex training exercises right in their back yard as well as in Europe alongside our NATO allies, which helps us build interoperability.

Fort Riley is currently aligned with the Synthetic Training Environment Cross-Functional Team. Can you explain your plans for testing and developing capabilities in the field, particularly as my example of the Big Red One soldiers at Fort Riley? General Milley.

General MILLEY. Thanks, Senator, for that.

One comment I would make on Army Futures Command, its headquarters is in Austin, Texas, but it has got tentacles throughout the entire continent of the United States and overseas, with or-

ganizations and units that are in hub locations. And academic research is one of the key things. So, on your first comment, absolutely, we are pursuing that throughout a wide variety of universities throughout the United States.

On the second one, with the Synthetic Training Environment, we think that the Synthetic Training Environment—it is one of the six-plus-two priorities of the Army, and we think that it will fundamentally change the level of competence and skills and knowledge of soldiers.

We already do this with astronauts; F-15, F-16, F-35 pilots. We invest a tremendous amount of money in virtual training prior to any pilot ever touching an F-16, for example.

We do not do the same with infantry rifle squad. So we will spend \$10 million a year to train a pilot. We will spend \$10,000 a year to train an infantry squad. Those numbers might not be exact, but that is about the weight of effort.

So we think that a Synthetic Training Environment, a virtual training environment which takes soldiers and has an experiential base of hitting the sled, not once or twice out on a live-fire range, but hundreds, if not thousands of times, so where they go through all the muscle memory as individuals, as squads and fire teams, but also platoons and companies and battalions and brigades.

If we can do that in a Synthetic Training Environment—we believe the technology is there today to do that—then we think that we can really raise our game across the board in terms of our skills and capability and therefore the readiness of the Army.

So we are putting a lot of investment in it. It is a nationwide program. We are working with a variety of industry-leading experts in developing this, and we think we will be able to field it here very, very shortly.

Senator MORAN. I again highlight Fort Riley's capabilities along with the intellectual center of the Army, Fort Leavenworth, and its proximity.

CYBERSECURITY

We had a report from the Director of Operational Test and Evaluations within the Department of Defense in regard to red teams, cybersecurity. It was the request of this Committee, and it was filed recently. What it indicates is there is a significant lack of capability within the Army, within the Department of Defense to meet those cyber vulnerabilities.

I highlight that report for you, and I would ask you, to either one or both of you, does the Army plan to grow a cyber red team capability through joint partnerships with other services?

Secretary ESPER. Senator, we are investing a great deal of money into cyber. As you know, we have a cyber MOS. We have a cyber officer corps. We have a cyber center down in Georgia. So, if anything, I think the Army is leading on cyber, and red teaming is a big part of that.

It is clearly a vulnerability, and when we talk about modernization, the capabilities that we are putting into our brigades, divisions, and corps, our cyber teams, which is unique. And so that is all part and parcel. We are certainly going to do that.

Senator MORAN. Thank you.

Secretary ESPER. And, Senator, I know you are out of time, but if I can, I just wanted to publicly thank you and congratulate you for supporting Senator Dole's promotion to colonel. I know it just passed I think yesterday in the House. And I had the privilege to know him and I think work with him, and so it is just a wonderful gesture. Thank you.

Senator MORAN. Mr. Secretary, thank you for saying that, and it is a great opportunity for all of Congress to honor the military service of now Colonel Dole.

Secretary ESPER. Yes, sir.

Senator SHELBY. Senator Schatz.

Senator SCHATZ. Thank you, Mr. Chairman, and thank you, Secretary and General, for your great work.

MILITARY CONSTRUCTION AND THE WALL

I have a question following up on Senator Durbin's line of questioning about military construction and the wall. I have actually four or five questions, so let us do this as quick as possible.

You have this list, which is really not a list. It is a universe. It is basically anything that is not housing barracks or something that is already under way. So it is anything fiscal year 2020 and beyond.

Secretary ESPER. That looks like the DoD list. Is that—

Senator SCHATZ. Right, right.

Secretary ESPER. Yes, sir.

Senator SCHATZ. So the question is, Do you have an internal list? Have you started to refine that to prioritize what MilCon projects will be cut that were appropriated?

Secretary ESPER. Senator, I have directed the Army staff to begin looking at the unobligated list of MilCon projects and to start prioritizing them based on readiness and our power projection.

Senator SCHATZ. Where are you in that process? Because we are waiting as though we are not appropriators, as though we did not already decide this, as though it is not our constitutional obligation to do the prioritization.

So, at a minimum, it seems to me we should be involved in this process, and that it should not be a black box that sort of is dropped down on us. Worse than that, you have Senators interacting with the Vice President of the United States who are saying they are going to vote no on resolution to terminate the emergency on the basis of reassurance that they have received that their State will be held harmless.

So, at a minimum, I think this Committee deserves to know what in the world is happening within each of the service branches.

Secretary ESPER. Yes. So, Senator, I instructed the staff to expedite this because I do not know when OSD may call upon the Army and the other services to forward their lists, and at that time, of course, OSD is going to prioritize them based on whatever methodology they use. I want to stay ahead of that curve.

Senator SCHATZ. And you will inform the Committee and consult with the Committee on—

Secretary ESPER. On our prioritization list?

Senator SCHATZ. Yes.

Secretary ESPER. Sir, Senator, if I am permitted to by OSD, I certainly will.

Senator SCHATZ. If you are permitted to?

Secretary ESPER. Yes, sir.

Senator SCHATZ. And you think that is a legal determination that they have to make or a political determination?

Secretary ESPER. I do not know. I would have to come back with you and find out what guidance I would get from Assistant—from Acting Secretary Shanahan.

Senator SCHATZ. Okay. And you know that I know this is not your—a problem if your making, but I will also tell you that this frays our relationship. This makes it very difficult for you to come to us and say, “All of these needs are high priority. They must be funded for readiness and other things and for the good of the United States Army when, as it turns out, there seems to be a billion dollars left over. I understand not meeting ambitious recruiting goals, but then to use that money for a wall as opposed to the U.S. Army’s Pacific’s—

Secretary ESPER. Right.

Senator SCHATZ [continuing]. Priorities that they just submitted to big Army, right, during the midyear review, and they are saying, “We need something in Korea. We need something for the Strykers in Alaska. We need a bunch of things in Hawaii. We need stuff throughout the region,” and instead, that pot of money is going to be used for the wall.

I understand we like to play nicely with each other on this Committee, and I think that is a good tradition. And I am not trying to interfere with that tradition, but the reason that we play nicely is because of mutual trust and transparency and an understanding of our constitutional roles.

Secretary ESPER. Yes, sir.

Senator SCHATZ. And I do not feel that it is working right now.

So the question I have is, Did you provide advice either to the Secretary’s office or anyone in the White House or anywhere else contrary to what is happening right now? Did you say, “Hey, look, this is actually going to harm the United States Army, we recommend you not do that”?

Secretary ESPER. Senator, the advice I provided early on was that we should protect barracks, dormitories, and housing; and then from there, we should prioritize based on readiness. And I have, of course, expanded that in my own staff, recognizing the installations involved. That we should also prioritize the ability to project power.

Senator SCHATZ. Right. So then you get from the 20-odd billion to the 10 billion based on that advice, but it sounds like you are okay with some cuts to the MilCon schedule. I guess that is the problem I have, which is to say that I think as the Army Secretary, you have to say, “I am not okay with any cuts because I represented to this Committee that every single thing that was funded was absolutely necessary,” and I do not think it is improper for you to stand up and say, “Everything remains necessary, and there is nothing on this list that is less important than the border wall.” I would like you to comment on that.

Secretary ESPER. Well, Senator, my perspective is the Army. Clearly, Acting Secretary Shanahan has a broader set of perspectives and requirements he needs to make, and obviously, the White House does too. Again, I will offer my recommendations to the Acting Secretary.

But I also have to look at that list. There is a process, and the process is the Army staff is going to provide, he and I, a list of recommendations, and we will look at that list and determine the prioritization and then make our advice to the Acting Secretary from there.

Senator SCHATZ. Thank you.

Senator SHELBY. Senator Boozman.

Senator BOOZMAN. Thank you, Mr. Chairman, and thank you all for being here.

Mr. Secretary, we appreciated you being in Texas at Red River, and it is kind of crazy for the Arkansas guy to be saying we appreciate you being in Texas. But, as you know, about 20 percent of the workforce, it being right on the border, comes from Arkansas. That facility does a tremendous job, and I just think it is so important. And I congratulate you on getting out, seeing things firsthand. The community was very receptive to you being there, and again, those are just important things to do. I think they were able to tell a great story about the mission that they are doing and things like that.

Secretary ESPER. Thank you. I had a great trip. I both enjoy and it is my duty to go around and see our arsenals and our depots and understand what that great workforce does wherever it is, and I have been able to visit a number of them in the 18 months or so that I have been on the job.

Senator BOOZMAN. We appreciate that, and I agree with you. I think it is your duty, and yet sometimes things do not get done. So the fact that you are modeling that is really important.

General Milley, we appreciate you so, so very much. You are always here to give very frank answers as to what is going on to make the Army the most efficient fighting force as it is and all of the things that go along.

Also, I want to congratulate you on your nomination to be Chairman of the Joint Chiefs of Staff. That is something that I know that the average soldier is very, very excited about, having somebody like you in that position.

CHEMICAL AND BIOLOGICAL WEAPONS

In regard to the Pine Bluff Arsenal in Arkansas, as you know, it is the only active chemical defense arsenal in the Department of Defense. Many of the items produced at the Pine Bluff Arsenal are not available in the private sector.

In your fiscal year 2020 budget submission, you have recommended eliminating 93 programs and reducing another 93 programs to help you focus on the six modernization priorities.

One of the programs that is being reduced is the Chemical and Biological Protective Shelter that allows surgical teams and medical companies to continue lifesaving work in environments that have been contaminated by chemical or biological weapons.

The National Security Strategy and the National Defense Strategy indicated a growing threat from adversaries equipped with chem-bio weapons. DoD has returned to the posture of routinely exercising and training in chemical gear.

So, with all of that, I guess the question is, given the absence of a commercial source for the chem-bio protective shelters and the sole capability to produce them just at Pine Bluff, can you talk about how you decided to make a reduction in the program?

And then, also, is not the work done at the Pine Bluff Arsenal precisely the kind of core capability we should be intent in retaining?

General MILLEY. With respect to the—

Senator BOOZMAN. I have got some more easy questions.

General MILLEY. Thank you, Senator. I appreciate easy questions.

With respect to the specific chem-bio capabilities and the 93 programs that were cut, eliminated, and 93 others that were reduced, a lot of due diligence, a lot of rigor went into every one of those.

But we recognize that every single program in and of its own self, it has its own merits, but everything is relative. And it is relative to other programs and a set of priorities that the Secretary and I determined that this program is more important than that program, and we made some very, very difficult and challenging decisions over some very intense—I will not quite call it combative, but I will call it intense—meetings amongst all kinds of people within the Army that fought very, very hard for various programs.

But at the end of the day, we are asking for \$182 billion, which we think is a considerable amount of money to the taxpayer, and we are determined to fund those priorities which we think will lead to the greatest readiness of the force, both now and in the future for modernization.

With respect to chem-bio, we did an estimate, and I advised the Secretary that I think that—as best military advice, that I think we have sufficient inventory of a variety of chem-bio capabilities within the Army right this minute that we can afford to take a little bit of risk there. We recognize it is a risk, but is it acceptable or not? I think it is, given the current situation globally.

Five, 10 years from now, as other technologies develop and other chem-bio things come online, we may probably—we probably will have to reassess that, but for right now, I think we have sufficient inventory to handle the risk at hand and, hence, made a recommendation that it be trimmed back or cut.

Senator BOOZMAN. We appreciate that.

Again, I wish you would look at that in the sense that that seems to be something that is talked about a lot right now in various briefings and this and that and really is something that certainly has to do with our capabilities in a variety of different ways.

Another issue I would like to talk about—well, again, my time is up, so—

Senator SHELBY. You can go right ahead.

Senator BOOZMAN. Well, as you know, fiscal year 2019, NDAA (National Defense Authorization Act) directed the Army to field two batteries of interim cruise missiles, defense capability in 2020, and

two additional batteries in 2023. The Army recently announced that it intends to purchase the Iron Dome as part of that.

IRON DOME

Army's fiscal year 2020 budget includes \$84 million for Iron Dome. How does that fit into your acquisition strategy to meet the fiscal year 2020 requirement? And if necessary funding is provided, will the first two batteries be fully capable to deploy and support combatant command air and missile defense requirements in 2020 as required in the——

General MILLEY. We identified six major priorities, bins, if you will, for different programs that fall underneath them.

One of those six is integrated air and missile defense. We know that one of the gaps we have relative to potential great powers is our ability to acquire, to see, and then to engage and shoot down rotary wing, fixed wing, and missiles coming in at our friendly forces. But we do have Patriot. We do have THAAD (Terminal High Altitude Area Defense), but there are significant gaps there which I do not want to necessarily discuss in a public forum.

Congress recognized that as well, and Congress directed that we go ahead and acquire two batteries of Iron Dome as an interim fix. We are complying with that. We are coming back to the Congress and asking for a reprogramming in order to fund the acquisition of those two batteries of Iron Dome.

Iron Dome is a good system. I went over to Israel and visited that, and I saw a demonstration of proof of principles. It is a very, very good system. It has a very good combat record as well as in a test and prototype version. So we are moving out and buying that.

We have other programs that are in the prototyping, IFPC and some other things that are going to provide us, the Army, provide the Nation with an integrated air-missile defense for ground formations probably by the mid-'20s, but we will have Iron Dome online by the end of fiscal year 2020.

Senator SHELBY. Senator Baldwin.

Senator BALDWIN. Thank you, Mr. Chairman, and thank you, Mr. Secretary and General Milley, for your hard and diligent work.

I am going to start with a line of questions relating to the stability of the industrial base that supports our armed services.

MODERNIZATION OF TACTICAL VEHICLES

General Milley, I appreciate that you are wrestling with conflicting budget priorities. However, I am once again concerned that the budget request underfunds the Army's modernization strategy for tactical wheeled vehicles, specifically for the Family of Medium Tactical Vehicles, FMTV, and for the Heavy Expanded Mobility Tactical Truck, or HEMTT, RECAP programs.

The request undercuts the Army's plan to provide stability to the industrial base by ignoring the Minimum Sustaining Rates, MSR. By Department of Defense definition, the MSR is the production rate for each budget year that is necessary to keep production lines open, while maintaining a base of responsive vendors and suppliers.

Both the medium and heavy industrial bases, largely within the industrial Midwest, but also spanning across the United States, they consist of fragile networks of small business suppliers who are, I dare to suggest, weary from consecutive years of Army risk-taking with tactical wheeled vehicles, the threat of budget caps, sequestration, and continuing resolutions.

Still, the budget request zeroes out funding for both HEMTT and PLS RECAP programs beyond fiscal year 2020, and the CBT program is zeroed out beyond fiscal year 2022.

So small businesses make up about 62 percent of the suppliers that support the FMTV program and about 56 percent of the suppliers supporting the heavy RECAP program.

So with known requirements across all three components for the Army for upgraded FMTVs and HEMTTs, how does this funding strategy support the critical modernization efforts and provide stability to the medium and heavy RECAP industrial bases in the form of Minimum Sustaining Rates?

Secretary ESPER. Senator, I will go first. Again, this gets down to tough choices. We have compared to, for example, the Bradley Fighting Vehicle fleet. The wheeled vehicle fleet is relatively young.

We also know that we—through our process of so-called “night court,” we found that we had more than enough numbers of, I believe, both systems. We would have to get back to you and give you a more detailed layout in terms of trucks that could hold us over well into the future, at least for the next few years, and so we made that decision.

As I have talked to some of the manufacturers—I have met twice or so with Oshkosh—I have said what we really need to do is think about how do we take the fleet we have and modernize in the sense of how do we adapt the vehicles we have now to be either semi-autonomous or fully autonomous because that is where the Army is going.

But we are adjusting. What part of this process revealed was that we were producing too many of many things, and what we are changing now is how we actually equip the fleets, and not just for trucks, but for everything we do so that we do not procure too much of things. This is something that was told to me, as I entered the job, by previous Chiefs of Staff, his predecessors, is that the current Army templates tend to produce too many of certain things.

And so we are trying to get back on the mark, and we are trying to take programs that, while they have value, compare to systems that are now 40 years old. I just cannot look a soldier in the eye and say, “I am going to not modernize your fighting vehicle or your long-range artillery because I want to keep buying this over here that is newer and in better shape.” It is about how do we make sure that the future readiness of the Army is sustained.

Senator BALDWIN. Where do you factor in this idea of having an industrial base that is capable of producing in the United States of America what the Army needs?

Secretary ESPER. It is very important. We try to do—I try to understand the impacts on defense industrial base as we went through this process. I need a robust industrial base with certainly competition so much as possible too. Again, Oshkosh is a great example, where 75 percent of their work is actually in the commercial

sector. The view was that they will be able to adapt and adapt their supply lines, but those are all considerations that we have to look at.

And what we are trying to tell industry these days is there is—we have shifted over the FY DP (Future Years Defense Program) over \$57 billion worth of money into these future programs. That is what we are asking all of industry, to include the small businesses, those long supply chains. Meet us there. That is where the money will be. That is where the money is. That is where the next few—several years, decades of the future will be because otherwise I just cannot keep building the legacy. I need to get to the future.

REPROGRAMMING FOR THE WALL

Senator BALDWIN. Mr. Chairman, I note that I am out of time. I just wanted to end by associating myself with the comments of Senator Schatz regarding the reprogramming of dollars for the wall. I am very concerned about the priorities that this Subcommittee of Appropriations as well as the MilCon/VA Subcommittee, on which I also sit, priorities that were reflected in our work, being now reallocated.

We do have to have a trust relationship, and this is—this is a challenge.

Senator SHELBY. Thank you.

Senator Murkowski.

Senator MURKOWSKI. Thank you, Mr. Chairman.

Gentlemen, welcome. Thank you both for your leadership in so many different ways.

General Milley, I want to acknowledge and express my appreciation to you particularly for your support of U.S. Army in Alaska. You were key, truly integral to the decision to protect our 4th Airborne Brigade Combat Team of the 25th Infantry Division when they were looking at force reduction several years ago. Greatly appreciated.

I also appreciate the efforts in building the aviation capacity there at Fort Wainwright with the Apache helicopter and the Gray Eagle UAS to Alaska. It truly does speak, as you know, to the strategic importance of Alaska. We have had many opportunities to discuss that with both of you, and we thank you for that.

ASSETS IN ALASKA AND THE ARCTIC

I want to talk a little bit, and not surprisingly, about the assets in Alaska, the training opportunities that we have, the great training opportunities that we host, particularly in the cold weather high-altitude training, and just a little more discussion about what you foresee as the potential for growth of the Army in Alaska specifically.

I note in the posture statement, you are speaking to a strategic environment in which Russia and China may seek to advance their interest in places like Europe, the Middle East, and Africa, but it does not specifically speak to the role in the Arctic.

I raise this, as I do in many committees, the issue of the Arctic more broadly, but when I ask this question, the threats to the European facing Arctic, I think are readily apparent.

But I am more interested in the increase in Russian military presence in the Far East and what that might mean for defense of Alaska.

The other thing I would like you to address—and I will just let you speak about the Arctic presence—the role of Army, Alaska, as it relates to the Arctic presence, but also when we talk about modernizing the U.S. ability to fight in the Arctic, whether it is the need for the new tracked SUSVs or protective equipment, I would like you to speak to progress with regards to that, whether it is better utilization of the training facility at the Black Rapids, at the Northern Warfare Training Center there at Black Rapids.

SYNTHETIC TRAINING ENVIRONMENT

I appreciated the conversation that you had with Senator Moran about the Synthetic Training Environment and all that that can demonstrate to us in terms of training and capacity and that repetitive, but I am also reminded, we just finished up this 1,100-mile sled dog race. Anyone can—well, not anyone. It is challenging to do a sled dog race, but when you are dealing with mind-numbing cold and just the monotony of terrain, synthetic can be helpful. But if you cannot even pick up a tool to communicate or write with because you are dealing with a cold situation, that we have not developed the protective gear that is adequate.

So a broad-ranging question about the Arctic, about training, and really how we deal with that increased military presence in the Far East side and the Alaska defense posture. So I throw that to both of you.

Secretary ESPER. So, Senator, if you do not mind, I will take the second question, and then I will let the Chief put on his Joint Chiefs hat and speak to the first one on strategy.

I was in Alaska for several days last summer and—

Senator MURKOWSKI. Appreciated. Thank you.

Secretary ESPER [continuing]. Had a great visit, and I visited all the installations and had a chance to go to the Cold Regions Test Center there and be put in the freezer. And it is very clear that our soldiers need to know how to operate in a cold weather environment.

It is just like you said. It is not just how do you operate, but it is how do you survive. And it is the simple things: how do you eat, how do you drink, how do you keep yourself warm.

But I also got a good lesson about how you have to think about the lubrication of your vehicles, the oils you use, and all those things that are critical to fighting and winning in an Arctic environment. So it is clearly something we need to preserve. We also need—the Northern Warfare Training Center does a great job in terms of operating in Arctic on glaciers, et cetera, and so I am very pleased with what I saw up there and the investments we have made with both the Airborne and the Stryker Brigade that is up there.

So there is more we could talk about that, but I want to kick it over to the Chief since we are tight on time.

Senator MURKOWSKI. I do appreciate you going there and seeing firsthand because I think that that really—

Secretary ESPER. It is a great lesson. It absolutely is. It is very, very different.

Senator MURKOWSKI. General.

General MILLEY. Thanks, Senator.

Just very briefly, the Arctic is a key area, and if we left it out of our statement, that was an oversight on my part.

I think I did mention in the opening oral statement, Arctic is key. Both Russia and China are expanding their military capabilities and commercial capabilities, by the way, in the Arctic. And there is no question that the sea lines of communications relative to the Arctic, that the natural resources in the Arctic are important to the United States from a national security standpoint.

The Department of Defense does have an Arctic strategy, and we are part of that. U.S. Army Pacific and U.S. Army Alaska specifically are all part of that, as you well know. We intend to sustain that effort, and we consider it a very important area for the national security of the United States.

Senator MURKOWSKI. Well, I appreciate the joint training exercises that have been conducted with other countries, the Trident exercise. These, again, contribute to the readiness and working with our allies.

Thank you, Mr. Chairman.

Thank you, gentlemen.

Senator SHELBY. Senator Murray.

Senator MURRAY. Thank you very much, Mr. Chairman.

Secretary Esper, General Milley, I understand the Army is planning to cut \$33 million from Army childcare in fiscal year 2020 and that more cuts may be coming, even more than that, in the following year.

ARMY CHILDCARE

These cuts are coming when childcare staff are dealing with more and more behavioral problems, when some parents, even with the dual military families who are on the top tier prioritization, are waiting a year or more now on wait-lists.

I have heard from parents who spent thousands of dollars on childcare in town because they could not get it or were just on wait-lists for day cares close to them or where they worked.

I have heard from parents who could have been forced to—who have been actually forced to even get out of the service because they could not get off a waiting list and into childcare. I have heard so many challenges.

So could you both please tell me, yes or no? Do you think access to childcare is a readiness or retention issue?

Secretary ESPER. Yes, ma'am, it is, and I would like to give you a broader answer with regard to what you are referring to, if I may.

Senator MURRAY. So maybe you could explain to me, then, why we are making cuts to this program.

Secretary ESPER. Sure. So no cuts have been made to the childcare for our soldiers. In fact, you have hit the nail on the head. It is access that we are wrestling with.

I am looking at a number of policy changes. First and foremost is to institute the prioritization laid out by DoD—

Senator MURRAY. I heard you—

Secretary ESPER [continuing]. So that military families go to the top of the line. In many cases, that is not what has been happening, and so there is a policy change that has to happen there.

A big chunk of that cut was a reform measure where we saw that parents were—we had a redundant management system in place. So rather than going to the day care center, if you will, to sign up, you went to a separate building with separate people. We got rid of that, and so now to sign up for day care, for example, you go just to the day care center. And that saved about half of that money right there.

And then we are paying an exceptional amount of money, for example, for DA civilians, many of whom are very high earners, and I think that is—what I want to do is look at transitioning more to hourly day care for our families. As I have traveled around the Army in the past several months, I am hearing more and more as we have improved the access to our military families, now I am starting to hear more and more about the need for hourly day care. So I want to look at moving money within the account to provide our families with the hourly day care that they need.

Senator MURRAY. My understanding is that many of these facilities do not have the space, and that they need to expand further. And I have done a lot of work looking at this, and we have got to increase capacity.

Secretary ESPER. Right.

Senator MURRAY. It is not just a matter of staffing, and we need to upgrade and build. Some of these child care facilities are in really horrendous shape.

So I really—I would actually just ask you to look at this, and maybe if you could come in and brief my staff on it—

Secretary ESPER. Yes, ma'am.

Senator MURRAY [continuing]. We could give you our examples because I do think it is a military readiness issue.

And, General Milley, I would assume—

Secretary ESPER. Before he answers, if I can just say, in several of the cases I know, because we review this monthly, 30 percent of the day care centers are filled up with nonpriority personnel, and so if I can work that list down, we can do that.

And I also want to expand what is called FCC, which is Family Child Care provided by family members on base. It is a great opportunity, but we need to incentivize that program better to expand. And there are some places where we are looking at building new capacity as well.

Senator MURRAY. General Milley, if you have any comments?

General MILLEY. Thanks, Senator. It absolutely is a readiness issue. In World War II, about 10 percent of the United States Army was married with children. Today, about 60 percent of the United States Army is married with children, and on average, there are two children in a family. So a family of four is the norm, the demographic of the United States Army.

And child care is a readiness issue because we want our soldiers to focus on their job, whether it is overseas in a combat operation or in a training mission overseas or in CONUS. They need to focus on their job, and if they are worried about the medical care, good

housing, mold in the house, child care for their children, education, a safe base, and so on and so forth—if they are worried about all of that, then they are not focusing on the jobs.

Senator MURRAY. Not doing their job.

General MILLEY. So it is absolutely a readiness issue. There is a direct correlation between that and the readiness of the force.

With respect to the cuts, we did go through the night court rigor on all these cuts, and the Secretary and the Army staff were absolutely—due diligence was absolutely applied to ensure that there were no cuts that impacted soldiers and their families. There are cuts that impact others but not soldiers and families. That is sort of the bargain that we struck. That is where we are at.

Senator MURRAY. I would just like to ask you—and if you can brief my staff on this because it is counter to what we are hearing, and I want to see it in—

General MILLEY. Sure.

Secretary ESPER. Absolutely.

General MILLEY. Yes.

BORDER WALL FUNDING

Senator MURRAY. All right. Secretary Esper, earlier this week, DoD notified Congress, it is raiding a billion dollars intended for paying benefits for servicemembers in order to fund the President's border wall.

We hear so frequently from the services about problems in readiness and modernization, and you are right to be concerned. And this Committee has worked very hard to help you address those problems because at the end of the day, our servicemembers are at risk.

So if this money is truly not needed where it is currently budgeted, would this money not be better spent investing in our soldiers and families, improving their training or modernizing their equipment?

Secretary ESPER. So, Senator, as I said earlier today, that \$1 billion or so came from the Army personnel account. That we could not meet that end strength goal of 487,000. So that was allocated to soldiers, frankly, that did not exist.

We turned that back in to OSD, if you will, and apprised the committees that we were going to be doing that. And the return of that money came with our recommendations that said the fiscal year 2019 budget approved by Congress met our readiness and modernization needs; however, we would like to keep some of that money to further improve readiness and modernization. And that is to your point, as you are just saying. There is always more needs and wants than there are means, and we could always use that money to do other things.

Senator MURRAY. Okay. But I do know you get very limited military construction funding. So I expect the Army would not have approved the new Confinement Facility at JBLM or the Tactical Equipment Maintenance Facility Yakima if they were not truly important. So I am extremely concerned to see them on a list of potential projects to be raided for this wall.

And we also finally secured funding for improvements to the Yakima Training Center Fire Station, which I hope is no longer on

that list of cuts, because the current facility at Yakima is not in compliance with National Fire Protection Association Standards, and it is severely undersized. There is a very serious danger in my State, which has suffered from wildfires, as you know.

So I wanted to ask, are any of these projects less important to military readiness than building a wall on our southern border?

Secretary ESPER. Senator, I have to assess all the projects and assess their relative value amongst one another.

With regard to the question of their value relative to the border wall, that is a decision beyond me. As I said earlier, my responsibility, to prioritize projects and look at it from an Army perspective. The Acting Secretary of Defense has a much broader perspective, and the White House has a much broader perspective from there. And it is those decisions where they can make the tradeoffs, and as decisions are made, we follow direction.

Senator MURRAY. Well, okay. I understand that.

I will just say for the record that we are sending a very bad message to our military that these projects, which are extremely important to their safety, to their readiness, to their availability, are less important. And I think we should all be standing up and speaking out, Mr. Chairman.

Thank you.

ADDITIONAL COMMITTEE QUESTIONS

Senator SHELBY. Senator Udall indicated he is on his way, but he is not here yet. So we will leave the record open for any questions.

Both of you, I want to thank you for appearing before the Committee. There might be other questions. A lot of members have other conflicts today. Thank you, both of you, very, very much, and congratulations to you, General, again.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO DR. MARK T. ESPER

QUESTIONS SUBMITTED BY SENATOR SUSAN M. COLLINS

Question. On February 1, the U.S. Army awarded an Engineering and Manufacturing Design (EMD) contract for the ITEP program to the General Electric Company. On February 19, the Advanced Turbine Engine Company (ATEC) filed a protest with the General Accountability Office (GAO) on the award. Recognizing that DoD cannot comment on the award due to the protest, I would ask that you provide for the Committee general clarification on the Army's Improved Turbine Engine Program (ITEP). Specifically, I ask that you answer the following questions:

What is the purpose of the ITEP?

Answer. The purpose of the Improved Turbine Engine Program (ITEP) is to design, develop, integrate, test, qualify, and deliver the next generation turbo-shaft engine for the Future Attack Reconnaissance Aircraft, Black Hawk (H-60), and Apache (AH-64E) helicopters. The ITEP is designed to develop an engine with increased power, increased fuel efficiency, increased reliability, and that fits in the current engine bays of the Black Hawk and Apache aircraft, at similar weight, while increasing operational reach and lethality.

Question. How does ITEP factor into the Army's Future Vertical Lift?

Answer. The ITEP is developing the designated engine for the Army's Future Vertical Lift Future Attack Reconnaissance Aircraft (FARA) Competitive Prototype.

Question. Were engine power, engine growth, specific fuel consumption, reliability, and maintenance key elements for ITEP? If so, how were these elements prioritized?

Answer. All technical requirements/key elements including engine power, engine growth, fuel consumption, reliability and maintenance were included in the ITEP System Requirements Document (SRD). The System Requirements Document was attached to the ITEP Engineering and Manufacturing Design Request for Proposal (RFP) and thoroughly evaluated by the Army. All technical requirements/key elements in the ITEP Engineering and Manufacturing Design SRD were equally weighted and considered.

Question. What is the status of the Army's turbine engine-manufacturing industrial base to meet future turbine engine requirements?

Answer. The combat helicopter turbine engine industrial base was examined in-depth in 2012, 2016, and twice in 2018 with focus on support of the ITEP and the Future Vertical Lift (FVL). Based on these examinations, the Army assesses the engine manufacturing industrial bases as capable of meeting future turbine requirements.

Commercial and Military engines are usually very similar in configuration, and this commonality typically leads to a stronger industrial base since a manufacturer will be supporting both users at the same time. These examinations consistently determined that this industrial base segment is vital, healthy, and prepared to support upcoming and emerging Army aircraft programs.

Question. Do we have a sufficiently robust industrial base to meet future turbine engine?

Answer. Yes, as provided in the response to the immediate preceding question.

Question. Would the Army consider there to be a long-term risk to the warfighter if price is prioritized over performance or capabilities during the ITEP program?

Answer. The Army's Engineering and Manufacturing Design competition used the best value approach to manage long term risk to the Warfighter, and appropriately weighted price and non-price evaluation factors.

QUESTIONS SUBMITTED BY SENATOR ROY BLUNT

Question. Senator Comment concerning General Leonard Wood Army Community Hospital: I want to take a quick moment to thank you for the support of an initial \$100 million in fiscal year 2018 for construction funding for the hospital replacement at Fort Leonard Wood. Another \$50 million has been requested in fiscal year 2020. And almost \$250 million more will be requested in future years. This project is absolutely critical to the Fort and surrounding community. The hospital last underwent a major renovation nearly 40 years ago. The hospital serves a large population of active duty, retirees, and families, with few alternatives military health system providers in the surrounding area. Despite the outdated nature of the structure, the care at the hospital has remained among the best in the country. It has ranked # 1 in outpatient efficiency by the U.S. Army Medical Command. The project has repeatedly been deferred year after year so it is a positive development to see real funding appropriated in fiscal year 2018 and further funding included in the budget request this year. Connected to the construction of the hospital is the concern over a potential shortage of physicians at hospitals like Fort Leonard Wood.

For instance, the Fort Leonard Wood hospital has seen a decrease of 23 percent in authorizations for primary care providers in the last 5 years. Fort Leonard Wood has on hand 29 of 43 authorized primary care providers. The 29 on hand includes those that are currently deployed. Fort Leonard Wood is currently being manned at 50 percent in Family Medicine Physicians, Physician Assistants, and Family Nurse Practitioners.

These shortages and reductions could have a serious detrimental impact on the Fort's training mission and readiness of the Army. This could also have a negative impact on the availability and quality of care provided to a very significant part of the regional population with thousands of members of the military, their families, and military retirees.

Is there anything you would like to add about the efforts and challenges associated with ensuring the proper manning of Army hospitals?

Answer. Army hospitals are manned by a mixture of active duty military, civilians, and contract manpower. The manpower requirements for the military population are determined by operational mission priorities. To mitigate gaps in military manpower, we rely on hiring civilian providers and contractors to support healthcare delivery, and send patients to the TRICARE network when military treatment facility (MTF) services are not available.

Title 5 USC Section 3326 provisions limit our ability to bring on qualified civilian providers as the Code restricts the appointment of retired members of the armed forces to positions in the Department of Defense during the period of 180 days im-

mediately after retirement. Although the Surgeon General of the Army (TSG) has waiver authority, the requirement to obtain waiver approval adds approximately 52 days to an already lengthy civilian hiring process for critical hard-to-fill healthcare occupations. The U.S. Army Medical Department (AMEDD) has lost a number of highly qualified candidates due to this additional delay in the hiring process.

Question. Do you want to add or discuss anything on the status of efforts to construct a new hospital at Fort Leonard Wood?

Answer. The replacement project is proceeding as scheduled. The design-build contract should be awarded by the end of the fiscal year. There are no issues or concerns at this time.

Question. Are there any readiness shortfalls associated with the current medical facility and if so, how are they being mitigated in the interim?

Answer. Not at this time. The Army continues to review medical readiness requirements at all of our installations in preparation for DHA transition.

Question. Secretary Esper, a few weeks back, Secretary of the Air Force Wilson was testifying in front of this subcommittee. We discussed military families and what we can do to ensure we are doing everything possible to make them more appreciated. One area that was mentioned was reciprocity of licensure for military spouses to ensure that as military families move from one State to another that their certifications transfer from State to State.

Can you talk a little about the value of that for military families, what the Army has done to be supportive of those efforts, and anything Congress or the States can do to further help make that easier?

Answer. One employment barrier spouses face is State occupational licensure transfer. With each move, spouses with State licenses/certifications may be required to take additional classes, pass State-specific exams, and/or become re-certified. Relicensure delays and expenses may cause spouses not to practice certain professions.

The Services coordinate with the OSD Defense State Liaison Office who works with every State to help military spouses get licensed faster. In 2018, Service Secretaries wrote to the National Governors Association to emphasize licensure transferability as a readiness issue and one that could be a factor in deciding future stationing requirements.

State legislatures are critical in addressing this challenge. We need their help in passing legislation to not only expedite receipt of a license through endorsement, temporary licensing, and expedited license applications, but to also consider policies that can drastically limit licensing requirements or even eliminate the need for relicensing as a result of military moves. Notable among these alternatives are interstate compacts for occupations that allow all licensees to establish a home State for a license and privilege to practice in all other member States. These measures would help us maintain spouse employment and individual Family financial readiness.

Additionally, we appreciate the support of The Congress in this critically important area; the NDAA for 2018 gave the Services the authority to reimburse our spouses for licensure and certification costs pursuant to a permanent change of station to a different State.

QUESTIONS SUBMITTED BY SENATOR JERRY MORAN

Question. In the fiscal year 2019 DoD Appropriations Act, Congress added \$5 million to Army Aviation Ground Support Equipment (RDT&E, line 145) specifically for a next generation health monitoring system (NGHMS). Both House and Senate bills had included this funding, signaling clear congressional support for a NGHMS data collection and validation demonstration on Army rotary-wing aircraft. However, I understand that to date, Army officials have failed to execute these funds.

I would like to know what circumstances have caused this delay and a firm timeline for when the Army will meet congressional intent for this \$5 million program increase?

Answer. Airbus helicopters tested and evaluated the NGHMS system and concluded that, based on the maturity level of the current technology, designs and data analysis, any benefits or savings of a NGHMS system on the UH-72 could not be identified. Based on that conclusion, the Army does not plan to procure or integrate NGHMS into the UH-72 fleet. On 3 January 2019, the Army sent a proposal to the Senate Appropriations Committee Subcommittee on Defense to instead use the \$5 million added to support the Next Generation Aviation Ground Power Unit (NGAGPU). That request remains with the Committee for decision.

Question. Section 1647 of the 2016 National Defense Authorization Act requires assessments of cyber vulnerabilities in major weapon systems. Yet, the Department

has only nine NSA-certified Cyber Red Teams across the Armed Forces capable of conducting cyber Adversarial Assessments of defense weapons systems. Further, these NSA-certified Cyber Red Teams lack programmatic funding, which forces these teams to 'fend for themselves' through either reimbursable funding models, or modest operations and maintenance budgets that do not adequately staff, train, and equip the teams to emulate continually advancing threat capabilities.

It is my understanding that the Army is specifically looking to build upon its existing cyber red teaming capabilities, the Threat Systems Management Office (TSMO), which has been nominated by the Director, Operational Test and Evaluation (DOT&E) to be the headquarters for a Persistent Cyber Opposing Force (PCO) construct, to ensure programmatic funding for NSA-certified Cyber Red Teams to preempt, discover, and verify potential cyber vulnerabilities, and develop proactive approaches to mitigate the risks of cyber-attacks.

With Army Futures Command focused on modernization and the Speed of Innovation to build a more lethal and capable force, I want to make certain the Army can rely on and utilize NSA-certified Cyber Red Teams to meet requirements to assess Army weapons systems and mitigate cyber vulnerabilities.

Do you support programmatic funding for NSA-certified Cyber Red Teams to meet current and increasing DoD demands for cyber red teaming of weapons systems?

Answer. Yes. The Army's fiscal year 2020 budget request supporting Threat Systems Management Office (TSMO) Cyber Red Teams is \$3.8M under Program Element 0604256A. TSMO is the Army acquisition NSA-certified Red Team.

Question. Given the lack of sufficient personnel, training, and tools toward NSA-certified Cyber Red Teams, do you support additional funding to increase manpower of the current NSA-certified cyber red teaming force to meet the increasing demand for cyber red teaming of weapons systems?

Answer. The Army continuously monitors and assesses the ever-changing threat environment faced by our Soldiers. Near-peer adversarial cyber capabilities continue to emerge and grow. As such, the Army will continue to adjust future-year budget requests to ensure weapon systems and readiness to counter the adversary are properly maintained across and in the context of the Army's broad range of modernization needs.

Question. Do you support and/or see benefit in DOT&E's concept to utilize the Army's TSMO as a headquarters for a Persistent Cyber Opposing Force (PCO) to avoid the high cost of developing a new program and to allow other NSA-certified Cyber Red Teams to improve information sharing and enhance cyber red teaming, mitigation and operational capabilities?

Answer. TSMO currently leads the Persistent Cyber Opposing Force (PCO) effort in support of DOT&E. DOT&E is the lead for the Department's Combatant Command Cyber Assessment Program and is proposing a joint project for execution of required Red Team assessments by the Service elements. As I understand it, the joint PCO project would be a collaborative effort with other DoD Red Teams such as AFNG 177th Information Warfare Aggressor Squadron and the NSA. The Army will review this proposal to determine the best path forward.

QUESTIONS SUBMITTED BY SENATOR JOHN HOEVEN

Question. I was recently in Grand Forks, North Dakota to mark the return of the Army Flight Training program at the University of North Dakota (UND). The program provides scholarships to 15 Army ROTC cadets per year to cover the cost of their flight training. This is an excellent incentive for young pilots to embrace a career in Army aviation.

Given the pilot shortage facing the Army and other military services, would the Army consider budgeting for ROTC pilot scholarships in future budget requests so that this program can be sustainable each year?

Answer. The Army did not request the funding added for Army Reserve Officers' Training Corps rotary wing training in the last appropriations bill. Congress, however, provided funds in the fiscal year 2019 Defense Appropriations Act, and based on that funding the Army entered into an agreement for flight training program at the University of North Dakota. The number of Reserve Officers' Training Corps graduates each year who seek Aviation as one of their top three branch choices typically exceeds the Army's requirements for new officer pilots. Accordingly, the Army is not seeking to replace funding for the general Reserve Officers' Training Corps scholarship program with specialized funding for aviation or any program at a particular college or university.

In addition, the pilot shortage within the Army is focused on Aviation Warrant Officers (AWOs) and not commissioned officers. The predominance of pilots within

the U.S. Army are AWOs, with the Army requiring 50 percent more new AWOs than commissioned officers annually to meet the manning requirements for all COMPOs and airframes. The Army is currently short 647 AWOs, but is healthy on commissioned officers. Increasing scholarship opportunities for specialized pilot training through the Reserve Officers' Training Corps will not improve our pilot shortage challenges.

The issue is a matter of prioritizing to make the best use of resources with focus on the highest Army priorities of readiness and modernization.

Question. What else should we do to ensure we have enough pilots to meet Army needs?

Answer. The Army is addressing the pilot shortage by increasing the number of new pilots we produce each year (both commissioned and warrant), while retaining our more experienced warrant officers. We have taken steps to increase the capacity of Fort Rucker to produce new pilots by increasing: (1) the number of aircraft on hand; (2) instructor pilots; and, (3) required funding, while simultaneously improving the maintenance capacity. We are retaining our experienced warrant officers by offering targeted retention bonuses to specific aviators, longer assignment stability incentives to provide more predictability for families, and increasing Aviation Incentive Pay to maximum Department of Defense authorized levels.

QUESTIONS SUBMITTED BY SENATOR PATTY MURRAY

Question. Earlier this year, the Army announced a "partial divestment" of Army Watercraft Systems (AWS), to include a divestment of over half the Army's watercraft vessels and many of the reserve units that support this mission. This is a logistics capability that is essential in disaster response where ports are degraded, or in the event of a conflict in the Asia-Pacific. This decision was made while the Army itself has been vocal about the shortfall in the Navy's sealift capacity. Did the Army conduct a thorough risk assessment to estimate how the Army will accomplish these essential logistics tasks during a conflict or disaster response without this capability (to include consultation with the Navy)?

Answer. The Army conducted a review of Army Watercraft Systems (AWS) and directed a partial divestment in support of the overall Army modernization/transformation strategy. The resultant AWS strategy is structured to meet the National Defense Strategy (NDS) and the requirements of the most demanding approved Combatant Commanders' operational plans. The NDS does not require resourcing support of Humanitarian Relief/Disaster Assistance (HR/DA) operations above operational requirements. The Army is conducting a follow-on review of AWS requirements with the Navy, United States Indo-Pacific Command (USINDOPACOM), Joint Staff, OSD and United States Transportation Command to ensure the Army continues to meet NDS needs.

Question. If the Army did a risk assessment prior to making this decision, please provide that assessment to the committee.

Answer. A classified risk assessment is being updated as part of the ongoing analysis and requirements review being conducted with OSD, USINDOPACOM and others. It is not available for release at this time.

Question. In addition, please provide the committee an anticipated timeline of when this divestment will occur and a specific enumeration of the vessels and units that will be affected?

Answer. Transformation of AWS capabilities begins in fiscal year 2019, impacting Regular Army (RA), Army Prepositioned Stocks (APS), non-doctrinal or Table of Distribution and Allowance (TDA), Army National Guard (ARNG), and United States Army Reserves (USAR) units, resulting in a smaller, more ready fleet positioned to meet the NDS. The Army will initiate divestiture of AWS and inactivation of USAR units, up to the quantity identified by the Office of the Secretary of Defense, Cost Assessment and Program Evaluation's Program Directive Memorandum (PDM), no later than September 16, 2019.

[See timeline]

The Army reorganizes Army Watercraft Systems (AWS) capabilities in the Regular Army and U.S. Army Reserves (USAR) to the following structure:

Retain: 5ea Logistical Support Vessels (LSV), 10ea Landing Craft Utility 2000 (LCU), 13ea Landing Craft Mechanized (LCM—8) (replaced by Maneuver Support Vessel—Light), 2ea Small Tugs (ST), 2ea Barge Derrick Cranes (BD) and 3ea Modular Causeway Systems.

Divest: 3ea LSV, 25ea LCU, 31ea LCM8, 6ea Large Tugs (LT), 14ea ST, and 2ea BD.

Regular Army

UNIT	LOCATION	DIVESTS	TIMELINE (NLT)	COMPONENT
73rd Transportation Company (Floating Craft)	Joint Base Langley-Eustis, VA	1ea LT 2ea ST	Inactivation 15SEPT2020	RA
97th Transportation Company (Heavy Boat)	Joint Base Langley-Eustis, VA	3ea LCU	Not Inactivation	RA

Army Reserve

UNIT	LOCATION	CAPABILITY	TIMELINE (NLT)	COMPONENT
709th Transportation Company (Floating Craft)	Tacoma, WA	2ea ST	Inactivation 15AUG2019	USAR
949th Transportation Company (Floating Craft)	Baltimore, MD	1ea LT 2ea ST, 1ea BD—XFER to RA	Inactivation 15AUG2019	USAR
467th Transportation Company (Floating Craft)	Tacoma, WA	1ea LT, 2ea ST, 1ea BD	Inactivation 15AUG2019	USAR
464th Transportation Company (Medium Boat)	Fort Belvoir, VA	9ea LCM-8	15AUG2019	USAR
203rd Transportation Detachment (Logistical Support Vessel)	Curtis Bay, MD	1ea LSV	Inactivation 15SEPT2019	USAR
548th Transportation Detachment (Logistical Support Vessel)	JB Pearl Harbor-Hickam, HI	1ea LSV	Inactivation 15SEPT2019	USAR
175th Transportation Company (Maintenance Company)	Tacoma, WA	No Vessels Assigned	Inactivation 15AUG2019	USAR
824th Transportation Company (Heavy Boat)	Morehead City, NC & Tampa, FL	2ea LCU XFER to RA	Inactivation 15AUG2019	USAR
481 Transportation Company (Heavy Boat)	Port Hueneme, CA	4ea LCU XFER to RA	Inactivation 15SEPT2020	USAR
Army Preposition Stock 5	Kuwait	10ea LCU, 1ea LT, 6ea ST, 1ea BD, 9ea LCM8	Inactivation 15SEPT2019	APS
Army Preposition Stock	Japan	2ea LCU, 1ea LT, 6ea ST, 5ea LCM8	Inactivation 15SEPT2019	APS

QUESTIONS SUBMITTED BY SENATOR TOM UDALL

Question. The Army, the New Mexico delegation, and the Appropriations committee worked hard to get a MILCON project to build an information systems facility at White Sands Missile Range. This MILCON project is important for continuing the important R&D, missile defense, and hypersonic testing the Department of Defense is planning. This project at White Sands Missile Range is essential to the success of the modernization efforts of the Army and every other service represented in the Pentagon.

Will you ensure that projects like this one—that are vital to national security and have already been approved by Congress—will not be sacrificed for the President's ill-advised wall? What is your recommendation to OSD?

Answer. The Army will continue to work with the Office of the Secretary of Defense (OSD) to ensure that Army requirements, including our modernization projects, are clearly understood.

Question. Right now we don't have a budget deal. Without one, DoD will face sequestration. Given that situation, can you or anyone else truly guarantee that any Milcon project that gets raided will actually get restored?

Answer. In the event the Acting Secretary decides to undertake or authorize military construction under section 2808 to fund border barrier construction in support of the President's national emergency declaration, DoD has no plans to cancel any MilCon projects.

Question. As Russia and China aggressively pursue hypersonic weapons capabilities, it is important that advance our own hypersonic technology. To develop this technology, inland tests will need to be conducted. What is the role White Sands Missile Range will play in conducting the needed tests?

Answer. The current range boundaries of White Sands Missile Range (WSMR) are inadequate for achieving the ranges required for the scheduled Hypersonic All Up Round flight tests. As the Hypersonic Program continues to evolve, there is potential for WSMR to play a role in achieving Army, Navy, and Air Force hypersonic component-level test objectives. However, WSMR could play a role in testing Hypersonic command and control systems, missile components, seekers, and new glide body capabilities as component-level items mature out of Science and Technology development efforts in the future.

Question. White Sands Missile Range continues to be the largest Army installation without soldiers—that is a tenant Army unit. Will you work to utilize the \$170 million dollars' worth of modern, battalion sized facilities that are vacant at White Sands Missile Range with permanent tenants?

Answer. The Army does not currently plan to grow force structure at White Sands Missile Range (WSMR). Much of our Program Objective Memorandum 2021–2025 Force is focused on modernization, improving lethality within existing formations, and increasing capacity of our training base and recruiting. That said, we will continue to give consideration to WSMR's facilities when considering the restationing of units.

Question. Will the Army be developing an urban training area to allow for better training in today's technologically advanced urban and hybrid warfare environment? And will you look at White Sands Missile Range as a possible location for developing this capability?

Answer. The Army is programming to develop urban training areas to allow for better training in today's technologically advanced urban and hybrid warfare environment. Dense Urban Terrain (DUT) facilities will be built on existing urban warfare training sites at the National Training Center (NTC), Ft. Irwin, CA, and the Joint Readiness Training Center (JRTC), Ft. Polk, LA. Both facilities will be integrated into a full suite of multi-domain assets for world-class, realistic training. The Army has no plans to build an urban training capability at White Sands Missile Range.

Question. For the last 18 years, Overseas Contingency Operation funding has greatly expanded and is now being used to circumvent legislatively defined budget caps. What is the Army's contingency plan if Congress does not approve such broad use of OCO funding or if sequestration returns?

Answer. The funding level for the Army's fiscal year 2020 budget request is necessary to meet current requirements, improve readiness, and invest in modernization, among other things. Sequestration level funding would be catastrophic to current and future Army readiness and modernization efforts and priorities.

Question. It was reported that the Commandant of the U.S. Marine Corps, General Robert Neller, warned acting Secretary of Defense Patrick Shanahan that a series of QUOTE “unplanned and unbudgeted” tasks that included the deployment to the border—where there is no emergency—constituted a QUOTE “unacceptable risk to Marine Corps combat readiness and solvency.”

The deployment of Army units to the Southwest Border has generally had a negligible affect on Army readiness. In fact, some units have improved their readiness as a consequence of their deployment.

Do you agree with the Commandant? And how are you addressing these issues among your ranks?

Answer. Thus far in fiscal year 2019, the Army managed several unplanned and unbudgeted tasks from an Army-wide perspective, the readiness impact of these events have been manageable. Based on the limited scope of these tasks when compared to the size and scale of the Army's capacity and capabilities, these do not constitute an unacceptable risk.

QUESTIONS SUBMITTED TO GENERAL MARK A. MILLEY

QUESTIONS SUBMITTED BY SENATOR JOHN HOEVEN

Question. Your written statement identified six Army modernization priorities, including Air and Missile Defense capabilities. I'm particularly interested in the threats we face from enemy drones and how to counter those threats. Can you briefly touch on the future threats we face from adversary unmanned aircraft and the Army's strategy for dealing with those threats, either from terrorist groups or from near-peer competitors?

Answer. Currently, Unmanned Aircraft Systems (UAS) are a rapidly proliferating threat to U.S. forces primarily as an Intelligence, Surveillance, and Reconnaissance (ISR) platform enabling more effective adversary operations. To a lesser extent, UAS have been used as lethal targeting platforms, and electronic warfare employment is possible. This threat poses risks to Army missions and forces now and in the future, both at home and abroad, as a low cost, high reward opportunity for adversaries. Current trends, driven by commercial industry and the military-industrial complex, point to greater capability for UAS in the future such as: 1) increased speed, payload, distance and flight duration/battery life; 2) miniaturization with improved optics and survivability; 3) improved guidance and control systems (e.g. GPS and multi-system navigation); and 4) improvements in UAS facial and object recognition. Technological advances in artificial intelligence and automation allow state and non-state actors to employ multiple UAS from a single operator now, or UAS to operate autonomously as a swarm in the future. The intelligence community assesses the majority of unmanned aircraft systems will originate primarily from China, either as commercial-off-the-shelf or military-grade hardware. These technologies are increasingly available to state and non-state actors, and are a growing concern. Russia and China continue to improve its integration of UAS into its ground forces. The integration of UAS with traditional military capabilities provides a significant force multiplier to improve the speed and efficiency of threat kill chains.

The Army incorporates lessons learned and best practices from the assessment, development, and employment of urgent response capabilities provided to Combatant Commanders, in order to develop appropriate materiel and non-materiel requirements for Counter-Unmanned Aircraft Systems (C-UAS). Current and future Short Range Air Defense integrates many of these capabilities for C-UAS, focused on low, slow, and small UAS. Notwithstanding Air Defense capability, the Army has identified capability gaps across the operational framework. Army modernization will ultimately deliver a comprehensive set of C-UAS capabilities at-echelon for Commanders to detect, identify, track and defeat threat UAS in support of large scale contingency operations and to protect Army critical infrastructure from UAS threats. The Army continues to develop C-UAS requirements and solutions through analysis of doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (DOTMLPF-P).

Question. I know that the Army does not carry out nuclear missions, but Congress is having an important debate about the role nuclear weapons play in our Nation's defense. In particular, Russia possess a massive arsenal of so-called "tactical" nuclear weapons that it would consider using early in a conventional conflict, daring the U.S. to respond.

How important is the U.S. nuclear deterrent in allowing Army to carry out its mission in a very dangerous global security environment?

Answer. The Army strategy relies upon a modern, flexible and resilient nuclear deterrent to convince our adversaries that any use of nuclear weapons will be more costly than they can tolerate. Nuclear weapons, in concert with space, cyber, and conventional joint force capabilities, are required to provide strategic deterrence in the 21st Century. Should deterrence fail, the United States must maintain a credible capability to inflict harm at a level proportional to an adversary's nuclear use.

Question. Would the Army take on additional risk if, as some people have called for, we scaled back our nuclear deterrent?

Answer. The size and posture of U.S. nuclear forces should be commensurate with existing and emerging threats. The 2018 Nuclear Posture Review (NPR) process assessed the global security environment and endorsed the need for a strategic nuclear triad and modernization of our nuclear forces and enterprise infrastructure. The Army contributed to and supports the 2018 NPR, as well as the scope and scale of nuclear modernization programs of record, to address the risks posed by global strategic threats.

SUBCOMMITTEE RECESS

Senator SHELBY. The Committee is adjourned.

We will next—excuse me. Let me—before we adjourn, I just want to announce that we will next meet on Wednesday, April the 3rd, at 9:30 in the morning to receive testimony on the Defense Health Program.

The Committee is in recess.

[Whereupon, at 11:21 a.m., Wednesday, March 27, the subcommittee was recessed, to reconvene at 9:30 a.m., Wednesday, April 3.]