

**DEPARTMENT OF DEFENSE APPROPRIATIONS
FOR FISCAL YEAR 2018**

WEDNESDAY, JUNE 7, 2017

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

The subcommittee met at 10:17 a.m. in room SD-192, Dirksen Senate Office Building, Hon. Thad Cochran (chairman) presiding.
Present: Senators Cochran, Shelby, Graham, Daines, Moran, Durbin, Leahy, Tester, Udall, Schatz, and Baldwin.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

OFFICE OF THE SECRETARY

STATEMENT OF HON. ROBERT M. SPEER, ACTING SECRETARY

OPENING STATEMENT OF SENATOR THAD COCHRAN

Senator COCHRAN. Welcome everyone. We are prepared to proceed today. I have an opening statement, which I am just going to ask that it be printed in the record and have other Senators make any opening remarks they would care to at this time.

The hearing is to review the request for funding of the Department. The Secretary of the Army, Robert Speer, is before the committee today. General Mark Milley, Army Chief of Staff, is also a part of this opening hearing of our committee. We appreciate very much your giving us information and observations about the general content of the Department of the Army's budget request.

We also want to take the opportunity of thanking the distinguished witnesses we have in leadership positions that manage the United States Army, specifically the Office of the Secretary of the Army, the Honorable Robert Speer, and General Mark Milley, the Army Chief of Staff. These are the top people who are monitoring and leading and helping make sure we provide our resources to the Army to carry out our challenges for safety and security for our country. So it is quite a serious undertaking, and we appreciate the fact that you have agreed to serve in this capacity.

And these are challenging times because we face budgetary constraints. So we have got our hands full in reviewing the proposal before the committee for the number of changes that are being suggested in the budgetary framework for the Army.

These are going to receive considerable public attention and debate, as they should, over the next several months, and we look for-

ward to working with you closely to be sure we understand what the needs are and how we can best make sure we carry out our responsibility for national security. We look forward to monitoring the activities of the committee to be sure we respond to the requests and in a responsible way how best to sustain and modernize our all-volunteer Army.

Today the Army remains heavily engaged around the world. Soldiers are performing and our Nation owes them a debt of gratitude for their service.

We look forward to everyone's testimony today, and your full statements will be printed in the record. And you can proceed to make any statement that will help us understand the budget request.

[The statement follows:]

PREPARED STATEMENT OF SENATOR THAD COCHRAN

The Committee will come to order. This hearing is to review the fiscal year 2018 budget request for the Department of the Army. Today we are pleased to welcome the Honorable Robert M. Speer, Acting Secretary of the Army, and General Mark A. Milley, Army Chief of Staff.

We appreciate very much your appearing today to provide us with information and observations about the content of the Department of the Army's budget request. We also take the opportunity to thank our distinguished witnesses, the Acting Secretary of the Army and the Army Chief of Staff, for their service. We appreciate the fact you've agreed to serve in these capacities.

These are challenging times because of budgetary constraints. The proposal before the Committee contains a number of significant changes and important budgetary issues for the Army. These will receive considerable attention and debate over the next few months.

We look forward to working with you closely to be sure we understand what the needs are and how we can best carry out our responsibility for national security. We want the Committee to respond to the budget request in a responsible way on how to best sustain and modernize our All-Volunteer Army.

Today, the Army remains heavily engaged around the world. Soldiers are performing remarkably well and our Nation owes them a debt of gratitude for their service.

We look forward to your testimony. Your full statements will be included in the record.

Now I will turn to the Vice Chairman Durbin, the distinguished Senator from Illinois, for his opening remarks.

Senator COCHRAN. I am going to turn now to Vice Chairman Durbin, the distinguished Senator from Illinois, for his opening remarks.

STATEMENT OF SENATOR RICHARD J. DURBIN

Senator DURBIN. Thanks, Mr. Chairman.

Acting Secretary Speer and General Milley, thank you for joining us today. We are looking forward to your testimony.

We had a chance to sit down together yesterday. I returned from a trip last week to the Korean Peninsula, had a chance to meet with General Brooks and many of our lead officers in the Army who are literally risking their lives with others for the safety and security of the Korean Peninsula. We know the threat that we face there.

There is some uncertainty in my mind about the new Government of South Korea, but I hope they dispel that uncertainty soon when it comes to things like the THAAD (Thermal High Altitude Area Defense) missile defense deployment and that we can con-

tinue to work together to keep them safe in light of the obvious threat from North Korea.

As we mentioned, there is also an area of the world where we are not only welcomed but they are anxious to see us and our presence. And that, of course, would be in Poland, the Baltics, and that region of the world.

The European Reassurance Initiative, which began under President Obama in 2014, is critically important to stop the adventurism of Vladimir Putin and the Russians. Today it has taken on a different character because some have raised questions about the future of NATO (North Atlantic Treaty Organization). No question in my mind about the future of NATO. It is a critically important alliance not only for regional but for world peace. And I hope that we can reassert, if necessary, our commitment to NATO and its future.

Finally, let me join the chairman in saying I am also concerned that the budget presented to Congress by the White House has no workable solution for sequestration. None. The budget proposes \$500 billion in increases to defense over the next 10 years while dramatically reducing domestic programs by \$1.5 trillion in the same period of time. This is not serious. This is not going to end sequestration. What it is going to do is to have us face another budget crisis before the end of this fiscal year. This is no way to manage a great nation and no way to make sure that our Department of Defense and other critical agencies that keep us safe in America have some certainty and predictability when it comes to budgeting.

Mr. Chairman, this is another challenge for us. It has been an honor to work with you in the past, and I look forward to doing it in the future. And I also look forward to the testimony of our witnesses.

And I turn it back to the chairman.

Senator COCHRAN. Thank you, Senator.

Senator Shelby.

STATEMENT OF SENATOR RICHARD C. SHELBY

Senator SHELBY. Mr. Chairman, I look forward to hearing the testimony.

And I commend you for calling this hearing. This is a very important hearing and what we are going to learn today, I believe.

Thank you.

Senator COCHRAN. Thank you, Senator.

The Senator from Vermont.

STATEMENT OF SENATOR PATRICK J. LEAHY

Senator LEAHY. Thank you, Mr. Chairman and Senator Durbin. It is good to have these hearings.

And I do welcome General Milley and Acting Secretary Speer, and I appreciate the time we had yesterday to go over a number of these issues.

We know the mission of the Army today is unique. I agree with what Senator Durbin has said about the threats we face and the necessity to maintain our commitments in NATO and around the world. We have to be ready at any moment to defend against the

threats against our national security, including the extremism and the violence that undermine our core values.

We are going to discuss today I know the shortfalls the Army is facing. But I think we should note the Army's successes in recent years in making better use of funding, moving toward efficient administration, better leveraging of the Guard, Reserve, rethinking acquisition programs and strategies. They are important steps but we still have only a third of the Army combat units ready to be deployed into battle. I know General Milley and Secretary Speer feel we must do better. I am committed to ensuring the Defense Department's budget enables it to respond to the missions it is asked to fulfill. But we also need to ensure that America has an economy and citizenry strong enough to fill the ranks and financially support our Army.

Our focus here today is the Army's budget proposal, but I think as Senator Durbin and others have mentioned, we should not ignore the President's drastic and draconian cuts to domestic programs, programs that, if funded, would strengthen our economy and empower our people. You cannot simply ratchet up defense spending while undercutting education and law enforcement and housing assistance, victims' assistance, Medicaid, workforce training, and on and on.

In fact, when Secretary Mattis was here in March, I asked him about the connection between a strong economy and a strong military. He has been quoted often on this, but I think it is worth saying again. He said the engine for national security has always been our economy. A strong economy equates to a strong military. And history is pretty compelling. Nations that did not keep their fiscal house in order, their economy strong lost their military power.

Now, General, you are well known to this committee as a student of history, and I applaud you for that. I enjoyed talking about Norwich and other things with you. Acting Secretary Speer, you have significant experience with finance and economics. We know you will be testifying about the Army's budget and the Army's challenges, as you should, but be mindful of the country's national priorities outside the defense landscape. If we do not invest in Americans here at home, the Army is not going to have the men and women they need to serve.

So thank you, Mr. Chairman. I will submit questions for the record.

Senator COCHRAN. Okay. Thank you, Senator.

We will now recognize our witnesses today: the Honorable Robert Speer, Acting Secretary of the Army, and General Mark A. Milley, Chief of Staff of the Army.

Others will be recognized at other meetings of the committee. I will also have the record open for statements by other Senators. They will be printed in the record.

So we will now recognize General Milley. I have got one question for you. How are you doing with recruiting and retention? That is to me one of the items that we want to hear from you about. You may proceed with your statement. Oh, the Secretary. I am sorry. I suppose I should recognize the Secretary first.

SUMMARY STATEMENT OF HON. ROBERT M. SPEER

Secretary SPEER. Mr. Chairman, thank you. Mr. Chairman, Vice Chairman, and distinguished members of this committee, I speak to you on behalf of our soldiers, our civilians, families, and about the current state of America's Army.

Your Army continues to march towards increased readiness while gaining momentum on modernization. Over the past year, the Army has been rebuilding readiness to counter the threats to the United States and our allies. I have witnessed readiness needs as I visit soldiers across our Army over the past 5 months. The pace of the Army operations is as high as I have seen in the last 16 years. I have seen and heard the impacts of this OPTEMPO while watching training and learning from senior leaders and families and soldiers.

However, our Army remains strong and our soldiers and families are resilient despite the strains. They understand the mission. They are well led and receive the best training of any Army in the world. What they desperately need is predictable, sustained resourcing to preserve readiness and maintain the gains they have already achieved while continuing to prepare for the uncertain future.

I thank Congress for the fiscal year 2017 budget, a critical step to easing these impacts while rebuilding readiness. Your funding stopped the decline of the Army manning levels and ensured deploying units have increased funding for readiness improvements and enables us to begin modernizing aircraft, armored vehicles, and air missile defense systems. And it allowed increased investment in ammunition stocks and upgraded infrastructure and production line capacity in our organic industrial bases, a good first step ensuring we have the armaments we need today and into the future.

Our \$137.2 billion fiscal year 2018 base budget request sustains a 1,018,000-man total Army. This Army will be capable of meeting global obligations while we invest in the capabilities of wartime operations and future challenges. This budget builds on the fiscal year 2017 continuing readiness improvements. It begins the long-term modernization effort to improve long-range fires, missile defense, continues to replenish munitions stocks, and provide advanced protective systems for combat vehicles and aviation. It begins to fill shortfalls in theater sustainment and transportation capabilities, and it will sustain increased capacity in our armored brigade combat teams and aviation brigades, both in high demand around the globe.

If we do not get this money we request, we will not be able to modernize the Army and we will continue to mortgage our future readiness. Above all, the Army needs sustained, sufficient, and predictable funding to restore the balance and reduce risk.

The Budget Control Act and continuing resolutions cause uncertainty. They force us to make tradeoffs between prioritizing readiness versus the future investments. So when you raise the defense caps, it is far more cost effective for the Army to balance current operations and future modernization when they can rely upon predictable funding that extends beyond a single year's budget.

We are also stewards of our funds and provide on behalf of the Nation. We are committed to Secretary Mattis' emphasis to rebuild and reform the processes to ensure resources are effectively and efficiently used.

To this end, the Army will conduct a financial statement audit on September 30th of this year, and we remain audit-ready.

The Chief and I are also aggressively reforming our acquisition processes. We must deliver capabilities to the warfighter quickly and at a lower cost.

I want to provide every soldier and family member the care and respect they deserve. The Army is making progress on eliminating sexual harassment, sexual assault, and retaliation and other offensive behaviors. This is a personal priority. We demand respect among our soldiers and civilians and will not tolerate such behavior among our formations.

In addition, I am able to report that our continuing Soldier 2020 initiative of standards-based assignments regardless of gender is working.

Our Army progress is directly related to your efforts. Thank you once more on behalf of our men and women of our Army. Your funding in fiscal year 2017 restored the balance of the total Army. We ask you to provide the resources in fiscal year 2018 we request and provide budget predictability into the future. With your help, the Army will continue to build readiness and modernize to meet the challenges ahead. I thank you and look forward to your questions.

[The statement follows:]

PREPARED STATEMENT OF HON. ROBERT M. SPEER AND GENERAL MARK A. MILLEY

We thank Congress for the fiscal year 2017 budget that allows us to improve readiness. With consistent, strategy-based funding over time, the Army can increase capacity, train contingency forces, close critical modernization gaps, and rebuild installation and training infrastructure—all while maintaining excellence in the execution of current operations. To that end, an increase in the budget caps and a defense budget sized to achieve the objectives in the Defense Planning Guidance are critical to the United States Army accomplishing assigned missions to a standard expected by the American people.

Over the past 15 years of war, the Army has continuously provided trained and ready forces for combat operations in Iraq and Afghanistan to a standard of excellence equal to any in our Nation's history. Simultaneously, the United States Army has executed a wide array of combatant commander missions, providing forces to Europe, the Pacific, the Middle East, Africa, Latin America, and the homeland. Today, the United States Army assigns or allocates over 187,000 Soldiers to meet combatant commander requirements. However, the fiscal impacts of the Budget Control Act of 2011 and continuing resolutions have required the Army to take risk when meeting current operational requirements while maintaining a ready force for major combat operations.

STRATEGIC ENVIRONMENT

The United States Army forms the foundation of the integrated Joint Force facing several U.S. national security challenges. For almost two decades, the Army has provided the majority of U.S. forces fighting two prolonged counterinsurgencies in Iraq and Afghanistan. United States Army capabilities are key to deterring Russian, Chinese, Iranian, and North Korean challenges to U.S. national interests. Additionally, United States Army Soldiers defend the homeland against intercontinental ballistic missiles and provide support to civil authorities in the event of unforeseen natural and man-made disasters.

Russia is likely to continue employing a mix of conventional and unconventional military capabilities to achieve its policy objectives. Russia's conventional capabilities are formidable and, in many areas, challenge ours and those of our allies and

partners. The Army contributes 34,000 Soldiers in support of United States European Command's effort to deter acts of aggression and ensure America's safety and security. The forward presence of United States Soldiers is the keystone of our Nation's ability to assure North Atlantic Treaty Organization (NATO) Allies and non-NATO partners, deter adversaries, and act in a timely manner if deterrence fails. We must invest in strategically prepositioned equipment stocks in addition to rotational and permanently stationed forces on the ground in Europe today. The result of prepositioned stocks in conjunction with forward deployed and rotational forces increases assurances to our allies and deters potential enemies.

The Army has about 71,000 Soldiers in the Indo-Asia Pacific to counter a myriad of security challenges from regional adversaries, violent extremist organizations, and natural disasters. In South Korea, the Army serves alongside our Republic of Korea counterparts to deter, and if necessary 'Fight Tonight' against an increasingly dangerous North Korea. China's disputed territorial claims and assertive actions in the South and East China Seas increase tensions with many friends and allies. Additionally, ISIS-inspired attacks in Bangladesh, Indonesia, the Philippines, and bombings in Thailand in 2016, demonstrate the persistent terrorist threat in South and Southeast Asia. Specific Army investments that provide the Joint Force a more comprehensive rapid response force in the Pacific include: enhanced joint integrated air and missile defense, offensive and defensive counter-electronic warfare, and cyber capabilities. Additional investments support rotational forces to South Korea and a robust training and exercise program to increase interoperability and build partner capacity with our friends and allies.

The Middle East and Central Asia are rife with threats and challenges. Iran's growing ballistic missile activities, cyber threats, and interference in Syria further threaten stability in the Middle East and the security of our allies. Russian intervention in Syria and increased influence throughout the region while ISIS continues a campaign of terror across the Middle East, adds to instability and inhibits long-term progress in the region. The Army's presence in the Middle East assures access, builds a foundation of trust, and prevents the ongoing conflicts from spilling over to other regions, including the homeland. Nearly 42,000 Soldiers throughout the area support the defeat of ISIS in Syria and Iraq, deny enemy safe havens in Afghanistan, deter Iran, support Turkey, assist with the stability of Jordan, and build partner capacity with our partners.

United States Army and African partnerships promote regional stability and provide increased awareness and flexibility. United States Africa Command employs United States Army forces in small teams and units that train with African security forces, assist in building capable defense institutions, and support counter-extremist and other contingency operations. These efforts assist our African partners in their fight against violent extremist organizations—ISIS, al-Shabab, and Boko Haram. During fiscal year 2016 over 9,000 Soldiers deployed throughout Africa. These Soldiers participated in over 250 security cooperation events, exercises, and missions in more than 30 countries; highlighted by Central Accord 2016 in Gabon, where over 1,000 Soldiers participated with counterparts from 11 African nations as part of a peacekeeping training event.

Approximately 4,000 Soldiers support military operations in Central America, South America, and the Caribbean. Transregional terrorist organizations, transnational organized crime, and violent extremist networks are the principal threat to regional security and stability. United States Army forces, including aviation, intelligence, communication, special operations, and logistics units, actively support partner nations' efforts to disrupt, degrade, and dismantle these threat networks operating in the region. In October 2016, in response to Hurricane Matthew and at the request of the U.S. Agency for International Development, the first Category 5 Atlantic hurricane since 2007, U.S. Southern Command stood up a Joint Task Force to support U.S. Government disaster relief operations in Haiti and Jamaica. U.S. Southern Command deployed United States Army air assets, including CH-47 Chinooks, UH-60 Black Hawk utility helicopters and HH-60 Medical Evacuation helicopters, which provided the ability to quickly move heavy loads of humanitarian aid, conduct medical evacuation missions, transport key leaders around the area, and conduct early reconnaissance flights to identify the hardest hit areas. The efforts of these Soldiers assisted in the delivery of more than 349,000 pounds of relief to areas devastated by Hurricane Matthew.

At home and abroad, the United States Army secures, operates, and defends its networks and conducts cyber operations against a growing array of sophisticated cyber adversaries. The Army secures and operates its global enterprise network through four Theater Signal Commands and five Regional Cyber Centers. The Army has 41 Active Component Army Cyber Protection Teams that conduct cyber operations against near peer adversaries, ISIS, and other global cyber threats. We are

building an additional 21 Reserve Component Cyber Protection Teams giving the Army 62 Total Force Teams. These teams deliver effects against our adversaries in support of ground commanders, defend military networks, secure Army weapons platforms, and protect critical U.S. infrastructure. We request congressional support of our fiscal year 2018 budget to continue to modernize our global enterprise network and advance defensive and offensive cyber capabilities to safeguard the Nation's security interests.

In sum, over 187,000 Soldiers support combatant commander requirements worldwide. Our Soldiers directly contribute to our Nation's efforts to defeat ISIS, support governance in Afghanistan, and deter conflict throughout Europe, Asia, and the Middle East. This steady demand for trained and ready Army units provides our Nation with the ability to defeat adversaries, assure our partners, and deter potential aggressors.

IMPACTS OF FISCAL UNCERTAINTY

For the past 5 years, the Army has been working to build and sustain a ready force. However, this has been a significant challenge due to the Budget Control Act of 2011, Continuing Resolutions, and unforeseen changes in the strategic environment that include an assertive Russia, an increasingly threatening North Korea, and ISIS controlling territory across Iraq and Syria. To respond to the current strategic environment, the Army has chosen to prioritize readiness.

While the Army remains focused on accomplishing the current missions of the combatant commanders, the negative impacts of the Budget Control Act of 2011 have been significant. These impacts include a smaller Army, spending less on modernization, and deferring installation maintenance. The consequences are real and will manifest themselves if the Army is required to fight in a major conflict. Congressional support for a Base Realignment and Closure authority would allow the Army to invest in readiness and modernization programs rather than excess infrastructure.

Over the last 8 years, the Army reduced end strength by over 100,000 Soldiers. This reduction included removing 17 brigade combat teams from the Army. To meet the end strength reduction targets, the Army reduced forward stationed forces in Europe and Korea, replacing them with rotational forces from the United States. The impact of this reliance on rotational forces is a deployment tempo that rivals the surge periods in Iraq and Afghanistan.

Over the same 8-year period in which we reduced the Army by 100,000 Soldiers, Continuing Resolutions and constrained funding under the Budget Control Act of 2011 forced us to pay short-term bills at the expense of long-term investments. A consequence of underfunding modernization for over a decade is an Army potentially outgunned, outranged, and outdated on a future battlefield with near-peer competitors. The Army's combat platforms include tanks, helicopters, infantry fighting vehicles, artillery, and short range air defense systems that are decades old. As technology continues to advance, our Army risks falling further and further behind. In short, the Army's lack of investment in modernization is eroding our competitive advantage in ground combat operations.

Additionally, the Army deferred maintenance of our installations for many years. The Army generates readiness on the installations where Soldiers live, work, and train. Installations provide the platforms where the Army focuses on its fundamental task—readiness. Our military construction investment remains at historically low spending levels and focuses on replacement of failing and obsolete training, operations, maintenance facilities, and footprint consolidation. Deterioration of our installations adversely impacts Soldier and Family quality of life, maintenance of equipment, deployment of forces, and our ability to mobilize reserve components.

Overall, the Budget Control Act of 2011, Continuing Resolutions, and unforeseen changes in the strategic environment have forced the Army to prioritize readiness. The tradeoffs were a smaller Army, smaller investments in modernization, and deferring installation maintenance. The principal negative impacts of these tradeoffs have been stress on the force, eroded competitive advantage, and deteriorating installations. Immediately increasing the defense cap and predictably funding the Army as requested are the most important actions Congress can take to address the changing needs of the global security environment.

READINESS TO FIGHT TONIGHT

Readiness deters and wins wars. An investment in readiness is time consuming and expensive, but the only thing more costly than funding readiness is the loss of life associated with sending Soldiers into battle unready. Ultimately, the United States Army must be prepared to respond to crises in sufficient numbers with suffi-

cient training and equipment to fight and win with little-to-no notice. The National Defense Authorization Act for fiscal year 2017 end strength increase of 28,000 Soldiers over the fiscal year 2017 President Budget's proposal is much appreciated to ensure the Army has fully manned formations. With a fully resourced end strength, the Army can sustain its global commitments. The fiscal year 2018 budget translates into better training, increased equipment, installation maintenance, additional munitions, and increased modernization that will improve the United States' ability to meet the requirements in the Defense Planning Guidance.

In 2014, the United States Army began the transition from training for a decade-long counterinsurgency campaign to training for major combat operations. Over the next 2 years, the Army's challenge is to balance the requirements of remaining regionally engaged, while simultaneously preparing to meet the demands of a globally responsive contingency force. As a result, the Army increased resources provided to Combat Training Centers and home station training. Throughput at Army Combat Training Centers increased over 10 percent—an increase from 17 to 19 brigade combat team rotations annually. These rotations challenge unit commanders at the brigade and battalion-level with realistic training scenarios that integrate unmanned aerial vehicles, cyber, intelligence, electronic warfare, communication, fire support, and aviation assets.

In addition to increased training opportunities, the Army initiated the Associated Units Pilot in order to build readiness and responsiveness across the Total Force. Under this program, the Army associates Army National Guard and Army Reserve units with a gaining Regular Army unit commander and vice versa—associates Regular Army units with gaining Army Reserve and Army National Guard commands. The receiving unit commander is responsible for approving the associated unit's training program, reviewing its readiness reports, and assessing its resource requirements. Associated units also train with their gaining units to the maximum extent feasible, including leader development, field training, command post exercises, and combat training center rotations. Congressional support for these efforts will increase Army readiness by shortening the post-mobilization training time required for combat and combat enabling units of the Army National Guard and the Army Reserve.

An adequately manned and trained Army deserves the best available equipment when responding to crisis. Last year, the Army established the Rapid Capabilities Office to acquire equipment and services quickly and at less cost. Targeting the mid-term time horizon, the Rapid Capabilities Office works with select industry partners to address critical modernization gaps including assured positioning, navigation, and timing; counter-electronic warfare; automation; and cyber capabilities. The Rapid Capabilities Office is already providing electronic warfare capabilities to Army forces in Europe and, with Congressional support, will provide deployed Soldiers with next-generation batteries and a supplemental positioning, navigation, and timing capability by 2020.

Additionally, the Army must provide state-of-the-art equipment in sufficient quantities to the units responding to crisis. To respond to crises in a timely manner, the Army positions sets of military equipment around the world. These sets, Army Prepositioned Stocks, decrease deployment time because they place military equipment closer to the potential point of need. Army Prepositioned Stocks, in conjunction with strategic sealift and airlift, provide Joint Force commanders with faster access to needed combat formations and enablers in order to reassure our allies and, if necessary, defeat our adversaries. The accelerated growth of Army Prepositioned Stocks in Europe positions equipment for a division headquarters, two Armored Brigade Combat Teams, one Field Artillery Brigade, and division enablers for rapid access by the Joint Force Commander. Similarly, Army configured Prepositioned Stocks in Asia shortens the timelines associated with a contingency in the Pacific Command. With congressional support, increased investment in Army Prepositioned Stocks in Europe and Asia will underwrite the ability of national leaders to provide flexible options consistent with U.S. national interests.

There is no greater responsibility in the Army than to lead American Soldiers in peace or war. Leader development is critical now and for our future. Professional military education combined with practical experience in leadership positions is the principal way the Army builds leaders. With Congressional support, the end product of increased investment in leader programs is officers and non-commissioned officers (NCO) of competence and character, fit to lead men and women in combat.

MODERNIZATION: EQUIPPED TO FIGHT

Army modernization advances materiel solutions that enable the Army to retain our advantage against advanced adversaries and a broad range of other potential

threats. The Army's fiscal year 2018 Budget Request prioritizes the requirements necessary to deter and, if required, defeat near-peer adversaries. The Army modernization priorities are: air and missile defense; long range fires; preferred munitions; mobility, lethality and protection of our Brigade Combat Teams; active protection; assured positioning, navigation and timing; electronic warfare; cyber; assured communications; and vertical lift. The Army also requests congressional support to improve our Soldier and combat service support equipment.

The air defense and long range fires portfolios contain our most urgent and pressing capability need to respond to challenges we have not faced in decades. Our potential adversaries have substantial anti-access and area denial capability, with many weapons and munitions whose quantity, range, and lethality have significantly improved. Specifically, we need to rapidly improve and procure our Army Tactical Missile System and Guided Multiple Launch Rocket System rockets, develop a cannon delivered area effects replacement munition, and improve the industrial base supporting the production of our precision and preferred munitions. To mitigate the increased risk to the maneuver force from airborne threats, such as rotary wing and fixed wing aircraft, Unmanned Aerial Systems, and cruise missiles, the Army is recapitalizing the existing Avenger systems and Stinger missiles, while developing the next generation of kinetic and non-kinetic short range air defense capabilities.

The Army has developed a Combat Vehicle Modernization Strategy for our Abrams, Stryker, Bradley, Armored Multi-Purpose Vehicle, and Howitzer fleets. These programs are ready to go into production. Our request includes increased funding to reduce the currently programmed 30-year replacement timeline. It also includes funding to enhance the mobility and lethality of our light infantry units by providing them with both the ground mobility vehicle and the mobile protected firepower vehicle. All of our vehicles need to be protected against rocket propelled grenades and anti-tank missiles. However, quantities of armor protective technology are limited. The request includes funding for additional protective technology, which is currently available only in limited quantities. These active protection systems use sensors, radar, computer processing, fire control technology and interceptors to defeat incoming anti-tank missiles. This capability will save American lives.

Similar to combat on physical battlefields, friendly and enemy forces fight for dominance in space, cyber, and the electromagnetic spectrum. The Army is developing anti-jam antennas that guard against attacks on our global position systems. Additionally, the Army is leveraging off-the-shelf hardware and software solutions to address shortfalls in offensive and defensive cyber capabilities. We are also developing the Multifunction Electronic Warfare system, to provide commanders the ability to plan, detect, defend, and attack in the electromagnetic spectrum. Vital to the success of our Soldiers on the battlefield, we are adapting our tactical radio waveforms to protect our communication network. Congressional support will enable the Army to increase capabilities and reduce risk in space, cyber, and the electromagnetic spectrum.

Our communications network is critical to enable mission command of ground combat operations. We request support to accelerate fielding of mission command network systems and increase procurement of the Joint Battle Command Platform to decrease software vulnerabilities and increase interoperability. Congressional support of the request will enable the Army to increase capability and reduce risk.

The Aviation portfolio adopts the recommendation of the National Commission of the Future of the Army to retain more Apache units, but cannot support aggressive modernization under the current Budget Control Act of 2011 caps. To implement the Commission's recommendations, the Army is incrementally procuring new Apache aircraft by slowing the modernization of the UH-60 Blackhawk program. This strategy extends the modernization timeline for Apaches from fiscal year 2026 to fiscal year 2028 and Blackhawks from fiscal year 2028 to fiscal year 2030. We also need to pursue a rapid solution for aircraft survivability given the proliferation of anti-aircraft weapons on the battlefield. Additionally, we are expanding the production of the Hellfire missile to meet current demand while transitioning to the Joint Air-Ground Missile to prepare for possible future contingencies. The Army's fiscal year 2018 budget request includes funding increases in aviation munitions, survivability, and modernization.

Our Soldiers remain the backbone of every Army capability, and our infantry units must be equipped with modern weapons. We request support to increase readiness by completing M4A1 Carbine pure-fleet fielding, developing Next Generation Squad Weapons, procuring anti-tank weapons, such as the Javelin and tube-launched, optically tracked, wire-guided (TOW) anti-tank guided missiles, and beginning procurement of the Lightweight Command Launch Unit for Javelin. Additionally, we seek congressional support for a variety of simulators and virtual train-

ing devices to significantly increase the repetition and experience base of our Soldiers and leaders at the tactical level in individual, collective, squad, and small unit operations given intense, complex, combat scenarios.

Our ability to project and sustain combat power over long distances and for long durations is key to winning wars. We request support for shortfalls in bridging, tank transport, and tank recovery that limit the maneuverability of the Army's Main Battle Tank on the battlefield. We also seek to increase procurement of our Joint Light Tactical Vehicle and Heavy Equipment Transporter, modernize our watercraft, and upgrade our medical capabilities for combat casualty care. This includes procuring the Maneuver Support Vessel (Light), completing the Landing Craft Utility 2000 service-life extension, and completing the command, control, communications, computers, intelligence, surveillance, and reconnaissance upgrades. Congressional support is needed to enable these initiatives for Army and Joint Force mobility and sustainment.

SOLDIERS, CIVILIANS, AND FAMILIES: OUR GREATEST ASSET

People join the Army to defend our Nation and its people. In turn, we must take great care to support those who step forward and answer the call to the colors. We request continued support for competitive pay and compensation and family programs, housing, and infrastructure improvements. We will continue Soldier 2020 initiatives' standards based assignments regardless of gender; Sexual Harassment Assault Response and Prevention (SHARP) initiatives to prevent and reduce harassment or assault against male or female Soldiers.

Additionally, Army Civilians as part of the Army generating force, ensure the readiness and availability of our formations that support the Joint Force commander with more than 16,000 Army Civilians serving overseas supporting combatant commanders. We are committed to ensuring quality support to our Soldiers, Civilians, and their Families that strengthens the bonds within our Army team, while simultaneously advancing our efforts to increase readiness.

THE ARMY'S BUDGET REQUEST

The Army's fiscal year 2018 base budget request is \$137.2 billion, a 5.3 percent increase from our total fiscal year 2017 base request of \$130.3 billion. The major budget goals for fiscal year 2018 are readiness to meet today's global challenges and focused modernization of our equipment. As part of these goals, the Army will upgrade aviation and ground combat platforms, while increasing investments in short range air defense, long range fires, aviation, network, combat vehicles, Soldier equipment, combat service support and installations.

Additionally, we are accountable for the resources to produce the outcomes required. We are also committed to the efficient and effective use of those resources by improving and reforming our processes. As mandated by Congress in the 2010 and 2012 National Defense Authorization Acts, the Army will be audit ready by September 30, 2017. We are strengthening internal controls, developing standard business processes, retaining supporting documentation, and improving system controls. The Army will continue to implement corrective action plans to resolve deficiencies, with an overall goal of improving a culture of accountability and fiscal stewardship of our Nation's resources.

CONCLUSION

We thank Congress for the fiscal year 2017 budget and their continued support of the United States Army and the American Soldier. Now is the time to substantially increase readiness, improve modernization, and increase capacity. Readiness remains unequivocally our number one priority—it underpins everything the Army does. We have an opportunity to fix readiness losses and prepare for the future. However, building a professional Army takes time. To build readiness, Soldiers require specialized and sufficient training; modern, properly maintained equipment; sufficient quantities of the proper munitions; and stability. To sustain readiness, the Army requests congressional support for its modernization efforts—aviation, network, combat vehicles, long range fires and short range air defense, Soldier equipment, and combat service support. We request that Congress increase the caps in the Budget Control Act of 2011, provide sufficient funding to fully man and train our current formations and allow us to close critical gaps in modernization. These actions will ensure that our Soldiers are ready for the missions of today, as well as for the unforeseen conflicts of tomorrow.

Senator COCHRAN. Thank you very much. Thank you for your statement and your leadership.

We now call on General Mark Milley, Chief of Staff.

STATEMENT OF GENERAL MARK A. MILLEY, CHIEF OF STAFF

General MILLEY. Thank you, Chairman. I very much appreciate the opportunity to testify today. And I want to thank you and Vice Chairman Leahy and Vice Chairman Durbin and all the distinguished members of the committee for the opportunity.

For the past 16 years, the United States Army has continuously provided trained and ready forces in Afghanistan and Iraq while simultaneously executing a wide variety of missions in support of geographic commanders around the world. Roughly 50 percent of all demand from the combatant commanders on a steady state basis and 70 percent of unexpected emergent demand is met by Army forces.

Right now, as previously noted, we have got, roughly speaking, 180,000 soldiers in about 140 countries around the world conducting training, deterring opponents, conducting humanitarian assistance, participating in peacekeeping, and of course, combat operations. The United States Army continues, despite the OPTEMPO, to be the best ground combat force in the world.

However, the United States is increasingly being challenged, and the gaps in both capability and capacity have emerged. This Congress recognized that and took action by showing your support in the fiscal year 2017 supplemental which for the Army arrested a downward trend in readiness and capacity for us.

And the Army is making progress. It is slow but it is steady progress in our core warfighting skills across the total force, the active, Reserve, and National Guard. We still have a lot of work to do to achieve full spectrum readiness and soldiers, and our objective is about 66 percent, or two-thirds, of the regular Army to be at full combat readiness.

And the most significant help we can get from Congress is a steady, predictable funding line, raise the BCA top line, and stop using continuing resolutions from year to year. Adequate and predictable funding is absolutely vital to combat ISIS ("Islamic State of Iraq and Syria), fully recover our readiness, address capacity and capability shortfalls, and it is a critical first step to set the conditions for improving future readiness and modernization that will be needed for unforeseen contingencies.

If the BCA and the continuing resolutions continue to define our resourcing, then we, the Army, risk reversing the readiness recovery that we started and has just begun. And it will result in a hollow Army. And we risk the lives of America's sons and daughters whose trust is in us, that we will provide them the best training, equipment, and leadership. A hollow force only puts the Army and the Nation's security at risk. Combat is very unforgiving, and it is even more unforgiving on armies that are not manned, trained, equipped, or well led. And the cumulative effect of persistent and destructive budget instability is increasing risk not only for the Army but for the Nation.

Advances by our adversaries are very real. Their advances in capability, capacity, and their increasing willingness to use that military instrument of power in foreign affairs is clear. Russia's aggression in Eastern Europe, China's militarization of the South China

Sea, North Korea's progress on developing an intercontinental ballistic missile with a nuclear weapon on it that can range the continental United States are but three examples.

Readiness, capacity, and capability to deter or, if necessary, to fight and win wars is very expensive, and we know that. But the cost of preparation is always far less than the cost of sacrifice and the pain of regret.

The current battlefield against terrorists is already very lethal, but a future battlefield against a near-peer or regional threat will be far more lethal. Our adversaries study us and they are rapidly leveraging technology, improving their capabilities, and are clearly asserting themselves in ways both seen and unseen.

Time is not our ally. The increasingly frequent missile test provocations by North Korea should be a red flag storm warning indicator to everyone in this room.

We request your support for this budget, which we recognize increases the defense caps imposed by the BCA. But we need this and we need it now before it is too late.

Specifically, the Army requests congressional support for our readiness and modernization priorities. In readiness, we want to retain the end strength increases authorized in the fiscal year 2017 supplemental bill to fill the force structure, to fill the holes, if you will, and to combat levels of manning. We also want to continue investment in high quality home station and combat training center OPTEMPO and operations and maintenance to support that. We want to increase our aviation and ground maneuver capacity, replenish critical ammunition stocks, and continue supporting our efforts to maintain aging equipment.

In modernization, we ask for your support for air and missile defense, long-range fires, preferred munitions, mobility and lethality improvements for our brigade combat teams, active protective systems for air and ground capabilities, assured mission command, electronic warfare, cyber, and vertical lift.

We recognize that the American taxpayer entrusts us with a significant amount of money to meet those requirements, and we will be diligent stewards of our resources and we will enforce accountability to make effective use of every dollar. Your support for the fiscal year 2018 budget will ensure our soldiers are ready for the missions of today as we prepare for the unforeseen conflicts of tomorrow.

And I thank you for the opportunity to testify and look forward to your questions.

Senator COCHRAN. Thank you very much.

The chair now recognizes the distinguished Senator from Illinois, Senator Durbin.

Senator DURBIN. Thanks, Mr. Chairman.

Let me ask General Milley and Secretary Speer a general question. We learned this week that Canada has announced that it is going to increase its military force for the stated reason, the uncertainty of the United States leadership in the future.

Last week, we heard the same from European leaders. They argued they had to fend for themselves more because of questions about the leadership of the United States when it comes to issues of national defense.

I ran into the same thing in Korea with the new government on the THAAD missile defense deployment, something that I thought was agreed to over a period of 2 years is now going to be actively debated in the assembly of Korea, South Korea, to determine whether or not they will accept our expenditure of \$923 million for a missile defense system. Again, they pointed to the uncertainty of the relationship with the United States, specifically statements by the President which leave questions in their mind about whether they have to assume some new financial burden for this missile defense system.

RELATIONSHIPS WITH TRADITIONAL ALLIES

So my question to you is rather general, in light of the things that I have mentioned. Have you noticed in your bilateral relationships with traditional allies of the United States a change in their feeling about our role and our reliability?

Secretary SPEER. Mr. Senator, as far as the bilateral relationship dialogue and discussion, I have not been recently over to Korea, and I heard and was able to discuss with you yesterday—I have recently been to Poland and Germany just within the last 30 days and saw significant—I sat down with the defense minister of Poland and spoke with him. The relationship, working with our allies, was very strong. I saw them training together, and I saw significant lessons learned and ability to operate together.

Senator DURBIN. This was in Poland you say?

Secretary SPEER. Poland, as well as in Germany, with Ukrainians and other allies.

We have got a longstanding relationship with Korea, as you know. We have got agreements and treaties working with such. I have not had the benefit of a dialogue with them. But I believe from an operational perspective from our foxhole, that the relationships and the operations are going well. The THAAD batteries are up and operational. The additional ones in terms of currently—my understanding has delayed a watch environmental review and will go through those things that is required to meet the needs of Korea.

THAAD MISSILE DEFENSE SYSTEM

Senator DURBIN. Well, I just might say in response to that this THAAD missile defense system for medium-range missiles seems so obvious to me for the people living in South Korea to protect them and to protect our forces who are there in their defense. I am troubled by the fact that it is now going to be resubmitted for political debate in the Republic of Korea as to whether or not they will accept our \$923 million investment in missile defense for their country. I cannot follow their logic here. I would think if I lived in the Republic of Korea, I would want every missile defense system available to protect the people of the Republic of Korea, as well as the forces of the United States that are there in their defense.

Let me ask General Milley for your response.

General MILLEY. Briefly, I do interact with my counterparts, the chiefs of armies around the world on a routine basis. With respect to Canada or in many, many other countries, frankly, they do need to increase their forces. Many of their armies and not just armies

but navies, air forces, marines, et cetera have atrophied over many, many years. And frankly, a lot of them do need to improve.

So that to the side, though, I believe that with respect to Korea, the specific part of your question, the THAAD is essential to protect U.S. forces in Korea but also South Korea as a whole. And U.S. forces in Korea are there in order to protect the entire country. So we will work through that.

As I understand the issue—it is only 24 or 36 hours old or something like that. As I understand it, it has to do with environmental concerns on the placement of the THAAD battery. I have not had an opportunity to talk to General Brooks, but I am confident he and his staff will work through that with the Government of South Korea.

But I agree, the THAAD missile is essential to the protection of U.S. forces and civilians in the City of Seoul and all the assets we have there, and it is also critical to protect the entire country of South Korea.

Senator DURBIN. I also met—I hope I do not mispronounce his name—General Vandal.

General MILLEY. General Vandal, Tom Vandal.

Senator DURBIN. I also met with him and asked him point blank, are we asking them to cut any corners on the environmental standards of Korean law when it comes to the placement of THAAD missile defense? He said, of course, not. And we know that it could take up to another year to go through that process.

The point that was raised by the president was twofold. Environmental, and the second one what he called due process, namely that his assembly needed to debate whether or not to go forward with this missile defense system.

So I am troubled by it. I would think that they would welcome not only our presence in their defense but also a missile defense battery which would protect our forces, as well as their people. And so it remains to be seen how this will play out, but I am watching it closely.

General MILLEY. We have a Senate-ratified defense treaty with South Korea. We will work through that. And as you are fully aware, there has been recent change of administration in South Korea, and it would be entirely inappropriate for me or any of us—

Senator DURBIN. Understood.

General MILLEY [continuing]. To comment on the internal deliberations of another country's government. So we will work through it. At the end of the day, I think the Republic of Korea will be properly supported by the United States.

Senator DURBIN. Thanks.

Senator COCHRAN. Thank you, Senator.

The distinguished Senator from Alabama is recognized.

Senator SHELBY. Thank you, Mr. Chairman.

General Milley, you have testified before this committee before regarding the THAAD, the terminal high altitude area defense, and Patriot and how critical they are to our defense posture. I am just following up on some of Senator Durbin's questions.

IMPORTANCE OF OUR DEPLOYED MISSILES

In view of the current pace of North Korean missile tests, could you provide, as much as you can in an open setting, the importance of our deployed missiles having a full magazine and how fielding a system there is so important not just to Koreans but to our troops too, as Senator Durbin alluded?

General MILLEY. The ballistic missile defense system is a layered, tiered system, and THAAD, Patriot, but other systems, Navy Aegis and other systems, to include radars, et cetera, are all integrated into a comprehensive system that helps protect our allies and friends, Korea, Japan, but also U.S. assets in the Pacific and the continental United States. And THAAD and Patriot play a critical role in that.

I believe that the system right now is a robust system. It has a high reliability, and I believe that one of the things we need to do, though—you mentioned full magazine. One of the things we need to do is put additional monies into the budget for additional munitions for those particular systems. And we have put that into this budget, and you will see one of the line items for increased THAAD, increased Patriot, and increased Patriot MSC, and increased long-range artillery, which is also key to take out their launchers and missiles—

Senator SHELBY. It would bring more fire power.

General MILLEY. That is correct. Well, defensive and offensive.

CYBER RESEARCH AND DEVELOPMENT

Senator SHELBY. Mr. Secretary, in the area of cyber research and development, which we are all interested in, the Army has made significant investments in networks and other technology that connect our weapons systems and improve our capabilities. At the same time, these connections have created potential cyber and electronic warfare vulnerabilities, we know. Do you agree that protecting our missiles, sensors, and our command and control systems must be of highest priority for our research and development investments?

Secretary SPEER. Senator, I absolutely agree. It is a high priority. It is one of the top priorities we have. It is also, in terms of both across the total forces, making a tremendous commitment to it. We are building cyber protection teams. We have got a total of 61 we will be building—sorry—62. That is both in the active Guard and Reserve. We have got 33 of those fully operational currently. We are always continuing as the Army's executive agency in terms of training them, improving their capabilities. We have got a request in here of almost \$1.5 billion added to their capabilities, to include improving the Cyber Center of Excellence down at Fort Gordon.

CYBER ATTACKS

Senator SHELBY. General, could you characterize, as much as you can in an unclassified setting like we have here, the importance of making sure that our weapons systems are able to perform when needed? In other words, you are defending them from cyber attacks.

General MILLEY. In the world of cyber—a relatively new domain. So the domains of war, as we define it, are land, air, sea, space, and cyber. So it is a relatively new domain, say, in the last 20–25 years or so. And when cyber was first developed, it was not developed inherently with defensive mechanisms built into it and defensive protection systems. So we have recognized that. We recognize that the electromagnetic spectrum writ large, our communication systems, our positioning, our navigation, our timing, our GPS systems are vulnerable.

Likewise, the adversary or the potential enemies are also vulnerable.

So it is very, very critical that we invest in protection of the network and the various electromagnetic systems that depend on the network. And we are doing that. In this budget, you will see increased monies for cyber.

The Army primarily invests in protection, defense, whereas other agencies of the government conduct the offensive piece.

Senator SHELBY. General, how important is fielding in the future directed energy lasers, hypersonic missiles, or providing other advanced capabilities to our soldiers? In other words, obviously we provide as an edge if not dominance.

General MILLEY. Absolutely. There is a whole series of technologies out there, Senator, that are probably going to fundamentally change the character of war, not the nature of war necessarily. That will always be political, friction, fog. But the character of war does change for a wide variety of reasons. One of them is technology. So for 5 centuries, armies have depended upon powder propellants to project projectiles through the space. Now there is a possibility of alternative means, electromagnetic guns, laser, and other means of use out there.

So we—we, the U.S. military, not just the Army—are developing and doing research and development, R&D, in those areas. The Navy, frankly, is probably the most advanced, along with the Air Force. The application for the ground use of laser requires significant energy sources like batteries. So, those have got to get miniaturized to a level where they are operational for ground use.

I do anticipate, though, say within 10 years, maybe 15, a significant increase in the use of lasers, electromagnetic weapons, rail guns, and other things like robotics, artificial intelligence, et cetera, all of which is going to impact the character of war.

HYPERSONIC MISSILES

Senator SHELBY. In the area of—one quick question—hypersonic missiles—

General MILLEY. The same.

Senator SHELBY. We know that Russia and China continue to work in this area, and some of our soldiers have told us that they have expressed a real need for a faster missile than we currently have, a supersonic missile. And where are we there? Are we moving in the right direction?

General MILLEY. We are moving. And we have monies in here and not only us, Army, but DOD writ large is progressing on the development of hypersonic munitions, not only missiles but bullets as well. So that is out there. It is embedded within the budget. It

is a significant amount of money being devoted to that research and development.

Senator SHELBY. Mr. Secretary, do you want to add anything to that?

Secretary SPEER. No. I agree with the Chief on that. I will say it is still in an awful lot of research and development in terms of adding it. It is not mature, but it certainly is in terms of the future with cyber and other domains to include these capabilities that we need to continue investing in.

Senator SHELBY. Thank you, Mr. Chairman.

Senator COCHRAN. The time of the Senator has expired.

The chair recognizes the distinguished Senator from Wisconsin, Ms. Baldwin.

Senator BALDWIN. Thank you, Mr. Chairman.

BADGER ARMY AMMUNITION PLANT

Secretary Speer, I represent a State that is home to the former Badger Army Ammunition Plant. That plant was once the largest ammunition plant in the world. In 1977, it was put on standby status, and in 1997, the Army declared that it was surplus to its needs. It happened to be roughly coincidental with my election to the House of Representatives in a district that included the Badger Army Ammunition Plant.

So over the last many years, I have been quite involved as we have seen much progress made in cleaning up much of the land and returning it to local control.

It also is why I was quite alarmed by the Army's sudden reversal of previously approved plans to construct and operate a municipal drinking water system as part of its groundwater cleanup remedy. I am disappointed additionally in the Army's lack of transparency and public communication regarding this reversal. And I can tell you I am hearing from my constituents.

I understand that the Army will now conduct a human health risk assessment before the Army moves forward with a new remediation plan. But this first step, this assessment, may take more than a year. And so I am urging you to expedite this process.

But during this delay, I would like your commitment on two issues: first, that the Army will continue water testing and ensure the provision of clean drinking water to impacted homes near the site of the former Badger Army Ammunition Plant; and second, that the Army will communicate with local stakeholders and incorporate local concerns and preferred remedies into the ultimate Army remediation plan.

Mr. Secretary, can you make those two commitments to me?

Secretary SPEER. You have my commitment to look into it and see, one, why it will take so long and speed it up and expedite it, so the first part, in terms of the timeframe, it will take. But you also have my commitment, as we are across now in terms of water, making sure that it is clean and that it is drinkable. I think we have made tremendous progress over the last 7–8 years in improvement both not only in terms of energy, but renewable energy, as well as water. But let me take a look at it and come back to you and follow back up where we are in timeframe and the commitment to ensuring we continue on doing so.

[The information follows:]

BADGER ARMY AMMUNITION PLANT

Baldwin understands “that the Army will now conduct a Human Health Risk Assessment (HHRA) before the Army moves forward with a new remediation plan but this first step, this assessment (HHRA), may take more than a year and so I am urging the you (the Army) to expedite this process.”

The Army will make every effort to expedite the Human Health Risk Assessment (HHRA). The HHRA is a component of a much larger investigation called the Remedial Investigation (RI) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Our goal is to have both the HHRA and the RI completed in less than a year. The contract scope for this effort is complete and procurement is underway. The Army plans to have the RI awarded by mid-late August 2017. The draft RI will be shared with the Wisconsin Department of Natural Resources (WDNR) in early 2018 and finalized by mid-2018. The HHRA will evaluate whether contaminant concentrations in the plumes emanating from the former Badger Army Ammunition Plant (BAAP) exceed acceptable risk levels for lifetime exposure. The results of the HHRA are an integral part of the RI that will inform future decisions and determine the long-term path forward. While the CERCLA RI is underway, the Army will continue to monitor groundwater conditions so residents in the surrounding communities continue to have access to safe drinking water.

During this delay (HHRA) Senator Baldwin would like the Army’s commitment on two issues:

That the Army will continue water testing and ensure the provision of clean drinking water to impacted homes near the site of the former Badger Army Ammunition Plant.

While the Remedial Investigation (RI) is under development, the Army will continue testing residential drinking water wells and monitoring wells, ensuring the continued availability of safe drinking water. The Army is committed to being transparent in its handling of issues related to safe drinking water and maintaining an open dialogue with the community, regulators, and other stakeholders. The Army has sampled more than 250 private wells in the area around BAAP since the 1990s. From this group, five (5) residential drinking water wells have been replaced by the Army due to groundwater concentrations exceeding Wisconsin drinking water standards. The last well replacements occurred in 2005. Under a plan coordinated with WDNR, the Army will continue to monitor groundwater conditions as necessary to protect residents in the surrounding communities from exposure to contaminants associated with past activities at the former BAAP. As appropriate, the Army will take steps to address drinking water concentrations if they are found to exceed the acceptable risk-based levels. Additionally, groundwater sampling results have been and will continue to be placed in the local information repository for residents’ awareness.

The Army will communicate with local stakeholders and incorporate local concerns and preferred remedies into the ultimate Army remediation plan.

The Army will be presenting an update on cleanup activities for the former Badger Army Ammunition Plant (AAP) at a public meeting on Wednesday, July 26 from 6:00—7:45 p.m. at the Sauk City Library, 515 Water St, Sauk City, WI 53583. This update is being provided to SEN Baldwin as part of the Army’s commitment to transparency and open public communications regarding cleanup activities at the former Badger AAP. During this meeting, local stakeholders will have an opportunity to ask questions and receive updated information regarding the Army’s progress in completing the CERCLA RI. Additional outreach to community stakeholders also may occur as necessary before and after this meeting. Opportunities for public participation and input have been, are currently, and going forward will remain available through the RAB. The Army remains committed to protecting residents from exposure to drinking water that contains unacceptable levels of contaminants attributed to the former BAAP now and in the future.

Senator BALDWIN. Well, I will look forward to hearing in more detail from you. Being able to rely that the water coming out of the tap is clean and safe is one of our most fundamental responsibilities.

TACTICAL WHEELED VEHICLES

General Milley, I am concerned that the budget request appears to underfund the Army's modernization strategy for tactical wheeled vehicles. And I would like to discuss two specific examples of that.

First, the request of only 37 FMTVs seems to undercut the Army's plan to provide stability to the industrial base as the service moves to the upgraded model of the vehicle in the 2020 time-frame. In this case, the level will drastically reduce daily production rates and will result in nearly a 2-month break, placing suppliers also at great risk.

So how does this funding strategy support Army modernization requirements and provide stability to the industrial base to react to urgent needs? That is my first.

HAMMETT AND PLS RECAP PROGRAM

The second is that the budget request zeros out funding for both the Hammett and PLS Recap programs for fiscal year 2019 through fiscal year 2022, despite known requirements across all three components.

How is this consistent with the most recent National Guard and Reserve equipment report and the Army's decision to increase the contract ceiling for these programs?

General MILLEY. Thanks, Senator.

As you know, in any budgetary process, we cannot get everything that we want. So we have to make choices and we do that. And we chose to fund the joint light tactical vehicle. We are going to purchase several thousand of those based in this budget over time. And that is to give ground mobility to our lighter forces, the 82nd Airborne Division, the 101st, 10th Mountain, 25th, and so on. So that is point one.

Point two is with respect to the Hammett and the PLS, et cetera, it was my assessment that it was an acceptable level of risk, given what we have in the inventory and what our host nation partners and allies have in the potential theaters of operation. I think those vehicles are primarily used to lift other—like tanks. They transport tanks over long distances. And I was willing to accept that risk in order to increase modernization on the tank itself, the Abrams, and the Bradley. And we have got some purchases of heavy armor as well.

So it is a conscious effort. It is one that has to do with tradeoffs and risk analysis on my part and the Army staff's part and the Secretary's part. And I believe it is balanced, and I believe, although it is not optimal, it is an acceptable level of risk.

Secretary SPEER. Can I add to that also, Senator that we also have within the family of medium tactical vehicles—we look at the average age of the vehicles and those on hand. And the average age we try to keep under 15 years. They have a serviceable life of up to 20–25 years. We have maintained that. We do have, as you said, the renewed variant within this budget for that. There is \$78.5 million total which includes 49 test pilot vehicles of a new variant also.

Senator COCHRAN. The time of the Senator has expired.

The distinguished Senator from South Carolina, Mr. Graham, is recognized.

Senator GRAHAM. Thank you, Mr. Chairman.

Thank you both for being here today.

If we go back in sequestration, what affect would it have on the Corps of Engineers, Mr. Speer?

Secretary SPEER. Well, across the board, it would have a disastrous effect. It is not just the Army Corps of Engineers.

Senator GRAHAM. The reason I mentioned that is that we are all wanting projects. Thanks for helping with the ports. But we all demand more but we give less. So if you really care about the Corps of Engineers, the last thing you want to do is go back into sequestration. Is that fair?

Secretary SPEER. That is correct. It is across the board.

SOFT POWER

Senator GRAHAM. General Mattis said before he was Secretary of Defense, General Milley, that if you cut the State Department's budget, you better buy me more ammo because soft power is basically important to the overall cause. Do you agree with that?

General MILLEY. Absolutely. And may I elaborate?

Senator GRAHAM. Please.

General MILLEY. The conduct of war is not just a military undertaking. Armies do not go to war. Nations go to war. And in terms of the forces and the capabilities, the skills that go to war, for the United States it is a whole-of-government interagency approach, and we have to use not only the military forces, but we need the State Department, the CIA, the FBI, Commerce, and so on and so forth. Those all participate in various capacities. So it is very important, I think, to have a whole-of-government approach to the conduct of war.

Senator GRAHAM. And therein lies the problem with this budget. I appreciate the increase in defense, but the cuts that Senator Durbin described are real and they will affect the ability to defend the Nation too.

You said something I thought was very persuasive to me. The only thing more expensive than deterrence is actually fighting a war, and the only thing more expensive than fighting a war is fighting one and losing it.

General MILLEY. Correct.

Senator GRAHAM. So, I sort of associate myself with your statement.

ARTICLE 5 OF THE NATO TREATY

Do you support article 5 of the NATO treaty?

General MILLEY. Absolutely. The Senate ratified the treaty for NATO and article 5 is embedded with that, and I fully support it.

Senator GRAHAM. The same for you, Mr. Speer?

Secretary SPEER. Absolutely.

Senator GRAHAM. From 2011, when sequestration first went into effect, very briefly—how is the threat matrix? Is it going down or up?

General MILLEY. Up.

Secretary SPEER. Up.

INCREASING OUR TROOP PRESENCE IN AFGHANISTAN

Senator GRAHAM. Let us look in the next decade in terms of big Army. Do you support increasing our troop presence in Afghanistan as an insurance policy against another 9/11?

General MILLEY. I do. But as you know, the specific numbers, et cetera, are currently under consideration.

Senator GRAHAM. But the idea of more you support.

General MILLEY. I do.

Senator GRAHAM. So we are going to have more troops in Afghanistan, at least I hope we will to make sure we do not have another 9/11.

Secretary SPEER. Senator, can I add to that, please?

Senator GRAHAM. Sure.

Secretary SPEER. I think that is part of discussions with the strategic readiness review that the Secretary is going underneath right now. You know, we cannot do everything throughout the world. I think part of that has to be part of that strategic readiness review in terms of the numbers and locations of the forces.

Senator GRAHAM. How big should the Army be in the next decade, General Milley?

General MILLEY. Well, what I have said in the past—and I will stick to that right this second—which is my guess is somewhere for the regular Army in and around the 540–550 range. For the National Guard, I would like to see them in the 350–355 range, and for the Reserve, somewhere around the 205 to 209 range.

Having said that, though, Secretary Mattis is leading right now a very rigorous and detailed strategic review. So the size of forces, capacities and its capabilities, is relative to—

Senator GRAHAM. But you expect it to be more than what we have today, which is 400,000 and some, 476,000. It needs to be more.

General MILLEY. The regular at 476 on or about 1 October. Yes, I do.

Senator GRAHAM. Okay. That is fine. I am running out of time.

So the point is we cannot be everywhere, but we better be in the right places. If we are not in Afghanistan, you are going to pay a heavy price because that place will fall apart. That is just my two cents' worth.

When we take Raqqa—excuse me—Mosul back from ISIL (Islamic State of Iraq and the Levant), do you think we should leave a residual force this time around if the Iraqis want it?

General MILLEY. If the Government of Iraq will consider that, yes.

Senator GRAHAM. Would you recommend to this Congress that we do that?

General MILLEY. Yes, I do.

Senator GRAHAM. So that is more troops in Iraq.

When it comes to North Korea, do we need more troops?

General MILLEY. A very difficult question full of all kinds of nuances. So, I cannot give a yes or no.

Senator GRAHAM. Let us look at it this way. It is something we should consider as a Nation.

General MILLEY. It is not so much more troops forward presence. It is the capability to respond.

Senator GRAHAM. Maybe strategic in-depth presence, maybe not in Korea but in the region.

General MILLEY. Sure.

Senator GRAHAM. The bottom line I am trying to make is that in the next decade I can name 10 other places. I see the demands on the Army more, not less.

General MILLEY. I agree.

Senator GRAHAM. And that is why sequestration is a disaster. That is why we need to build up our military, but you cannot do it by cutting everything else. So I hope we will find a way to fix this dilemma.

General MILLEY. I agree.

Senator GRAHAM. Thank you both for your service.

Senator COCHRAN. I thank the Senator for his contributions.

Now, the next member is the distinguished Senator from Kansas, Mr. Moran.

Senator MORAN. Mr. Chairman, thank you very much.

Mr. Secretary and General Milley, thank you for your presence today.

I understand that the Army's unfunded requirements list includes a \$3.1 billion increase—this is somewhat of a follow-up to Senator Graham's questioning—in end strength beyond the fiscal year 2017 NDAA (National Defense Authorization Act) mandate.

REBALANCING THE BRIGADE COMBAT TEAM STRUCTURE

New threat environments in my view mean the need for potentially rebalancing the brigade combat team structure. Army planning to address Russian aggression includes back to back armored brigade combat team deployments to Europe. And in fact, we are sending 4,000 Big Red One soldiers with the 2nd armored BCT to Europe this fall.

I want to hear a discussion about what you believe is the right mix between light attack armored and advice and assist brigade combat teams. Let us start there.

General MILLEY. So in this budget, we have asked to flat line the end strength in the base budget. However, if more money became available and we could make sure that we were able to maintain the readiness, we do have in the UFR, as you pointed out, additional requests for \$3.1 billion, which would increase the end strength capacity of the force.

The mix of the force has long been debated and it depends on what you are doing at the moment in time. We shredded artillery, long-range fires, air defense artillery, and a lot of armored units in order to fight the current fight that we have been engaged in for this last 16 years.

As the emerging environment becomes ever more clear, we now know that we probably need to rebalance the force with additional armor capability. So we have in this—we are going to ahead and add a 15th armored brigade and convert another infantry brigade to an armored brigade with a total of 16 across the board.

The SFABs that you talked about, the security force assistance brigades—we are going to introduce those. Our end state is five or

six. We will see how the pilot program goes. And the intent there is that they will form the basis, the core, the nucleus of an advisory effort overseas because we think that we will be involved with other nations in some capacity to advise and assist and train and accompany them in the conduct of combat operations and/or training operations to build up their own internal capacity. So we are introducing those. And what that will do is that will recoup the brigades that we currently rip apart to provide the advisors that are currently overseas.

So those brigades will increase the readiness of the force by not ripping apart existing brigades, provide a valuable service as advisors, and then if in the worst case, we had to rapidly expand the Army, those brigades would have coherent chains of command from staff sergeant on up that we could rapidly expand the Army by at least four or five brigades relatively quickly by adding soldiers to existing chains of command.

So those are two of the things we are doing. There are some other minor force structure changes we are adding into the budget.

Senator MORAN. General, thank you for that information.

I want to make certain that I bring up the topic of advise and assist BCTs and their training and particularly as it relates to Fort Riley.

The availability of year-round space, usable acres ought to be a significant component of any decision process that is going on. And I just want your assurance that you will allow us to have a conversation with you in regard to Fort Riley and its capabilities in that regard.

General MILLEY. Absolutely. We have settled on the first brigade to go to Benning, and that is also where we are setting up the security forces schoolhouse. So there will be training capacity there, and we are going to set up the first brigade at Fort Benning, Georgia.

The follow-on brigades, though, have not yet been decided, and we have not done the analysis. And we will consider all the factors of all the various stations and installations around the country, to include Fort Riley, as part of that calculation. For sure, you and your office will be included in that discussion.

Senator MORAN. I appreciate that very much. Airspace is another component of that.

I wanted to talk to you about cyber as well. I know that the Senator from Alabama has done so, but I would like to see some coordination between Reserve, Guard, and active, as well as the various branches of the service. And I will submit a question in writing.

My time is down to 15 seconds, and I wanted to take the opportunity, first of all, to say I am pleased to see the administration nominated Ryan McCarthy. And my understanding is you have a history with him, and I am looking forward to that being a team that accomplishes a lot on behalf of our Nation.

I also wanted to remind you, General Milley, that during the budget hearings, you and I agreed to go to Fort Riley together, and I would love that still to happen. And I would take this opportunity to say that tomorrow is the 100th anniversary of the 1st Infantry Division. It has a longtime history in defending our Nation. The

Big Red One—we were at the monument yesterday near the White House, D-Day yesterday and Big Red One tomorrow. It is a historic time for the Army. But it is also a time for us to recollect, respect, and express our gratitude to those who give us the opportunity to have this conversation today.

General MILLEY. Thanks, Senator. And I could not agree more. Big Red One is a great division. Fort Riley is a great post. And I will do better at coordinating my schedule with yours and get that trip on my calendar.

Senator MORAN. That is the way I explain those kind of questions when my wife asks me. I will do better. Thank you, General. [Laughter.]

Senator COCHRAN. Thank you, Senator. Thank you very much.

Now, the distinguished Senator from Hawaii is recognized, Mr. Schatz.

Senator SCHATZ. Thank you, Mr. Chairman.

General Milley and Secretary Speer, thank you very much for your service.

PACIFIC PATHWAYS

I want to start, General Milley, with a question about Pacific Pathways. I hear nothing but good things about Pacific Pathways from soldiers when I am in the region about the impact that it has in terms of building alliances and the sort of outsized impact it has for each dollar spent. And so I wonder if you would not take a moment just talking about what you think Pathways does for the Department.

General MILLEY. I think it is a very important series of exercises, as you know. And they serve to assure our allies and friends and partners in the region of continuing engagement. We think they deter any potential aggressive actions by potential adversaries. It serves to increase interoperability for the forces, and it provides tremendous training opportunities for our own soldiers and thereby increases the readiness of the force.

Some exercises and some events overseas deployment, et cetera consume readiness. Pacific Pathways tends to increase readiness through cohesive, collective training throughout the Pacific AOR. So it is a very, very valuable series of exercises for the Army but also for our partners and allies.

Senator SCHATZ. General, as you know, USARPAC (United States Army, Pacific) has paid for some of the shortfalls that are created by these exercises being a little more expensive than your normal exercises through O&M (Operations and Maintenance) funds. But I am wondering whether there is any new money in this budget request to make sure that USARPAC does not sort of have to take it out of hide, to know that it is a priority from the Department of the Army and not just something that USARPAC has to sort of live off the land in order to make it happen.

General MILLEY. Thanks, Senator.

No. We did not put a specific line item in here to increase specifically tagged to Pacific Pathways. There is we think, though, adequate O&M funding in there for the 25th Division, the units up in Alaska, and the units at Fort Lewis to participate in those exercises. I will dig into it. I will call out there and make sure that I

understand that their needs are being met, and I will talk to Admiral Harris to make sure that his COCOM Commander's desires for Army forces and their levels of participation are being adequately resourced.

[The information follows:]

PACIFIC PATHWAY EXERCISE FUNDING

The fiscal year 20018 budget request includes an increase of United States Army, Pacific operations and maintenance funds for security cooperation and partnership activities, which includes Pacific Pathways directed funding and participation from Army units such as 25th Division's Brigade Combat Teams in Alaska and Fort Lewis.

The Army will continue to allocate resources, in parallel with Combatant Commands, to support all Army Forces participation in exercises world-wide through its planning, programming and budgeting process.

Senator SCHATZ. Great. Thank you.

LACK OF LEADERSHIP POSITIONS

Moving on but sort of related to our presence in the Asia-Pacific, it is sort of a follow-on to the question that Senator Graham asked about the State Department and all of the other executive branch agencies with which you work.

I am worried in the extreme about the lack of leadership positions for which we have a nominee at all in the Defense Department, in the State Department. But I wanted to—without asking you to be critical of any processes or anything else, I would just like you to, if you would not mind, underscore the following point. I assume it is important to you, essential to you over the long run that we have an Under Secretary for Defense Policy and Assistant Secretary for Asian and Pacific Security Affairs, an Assistant Secretary for Political Military Affairs, an Assistant Secretary for East Asian and Pacific Affairs, and an Ambassador to Korea. I assume that you feel that this is all part of the team in the Pacific AOR, and we need to fill those positions as expeditiously as possible.

General MILLEY. Sure, absolutely.

Senator SCHATZ. Thank you.

General MILLEY. But let me also say, only for the Army—I will not speak for DOD or Department of State or anything. But we have a professional group of dedicated civilians, SESs and GS grade that have stepped up to the plate and they are filling these executive positions, the assistant secretaries of the Army positions, as Mr. Speers, Acting Secretary of the Army. And I will tell you that they are tremendously professional. They are doing an outstanding job on a day-to-day basis and we are not missing a heartbeat.

So as a broad statement, yes, I think the executive positions should all be nominated and filled as expeditiously as possible. But speaking in terms of a soldier about the Army staff, the civilian staff—they are doing an excellent job and we are not missing a heartbeat as far as I am concerned.

Senator SCHATZ. And I think it is a good point. We have incredible career professionals who are stepping up and performing at a very high level.

There is a structural problem, however, when you have people who are not Senate-confirmed and are not authorized to speak in

the same way that a Senate-confirmed nominee would be on behalf of their country to another country. I mean, that is the reason you have Senate confirmation. That is the reason for these assistant secretaries and ambassadorships. And so you are right. Lots of people are stepping up and doing the very best they can and I think exceeding expectations. But some of these positions are by definition things that can only be done by a nominee who has been confirmed by the United States Senate.

Thank you.

Senator COCHRAN. The time of the Senator has expired.

The distinguished Senator from New Mexico, Mr. Udall, is recognized.

Senator UDALL. Thank you, Chairman Cochran and Ranking Member Durbin.

Acting Secretary Speer and General Milley, there has been a lot of discussion about readiness and the importance of readiness in this budget. After years of deployments, it is understandable that the services are looking to refocus their efforts on readiness. However, we really need to know what this entails and how the Army is utilizing this budget to prepare for the future.

General Milley, you have stated that the Army is increasingly interested in developing machine learning and artificial intelligence capabilities. These are important aspects of the third offset, an effort which I very much support.

TROOP READINESS

The other side of that coin is preparing our troops for a combat environment where cyber, space, and electronic warfare are hotly contested. How is the Army working to prepare for this type of future battlefield environment, and are there adequate funds in this year's budget to begin this type of training?

General MILLEY. Let me try to answer it this way, Senator, and I appreciate the question.

I think of readiness in terms of time in essentially three chunks of time. Basically, a FY DP or 5-year plan, POM, if you will. So from now until about 5 years from now, I would call that current readiness where the system is not going to make major fundamental changes, and you are going to have legacy systems, legacy equipment, legacy doctrines, and legacy organizations. You will change them a little bit but not fundamentally. And then you have got this 5- to 10-year period, which is a transition period, and then you got beyond 10 years.

When you start talking about robotics, artificial intelligence, and many of these other technologies that I am referring to changing the character of war, we are talking a time period of, roughly speaking, probably between 5 and beyond 10 years.

Current readiness, which is the topic that people talk about all the time, which is the fight tonight sort of readiness—that is where most of the money goes to or that is what we have prioritized and biased, and we have slightly less going to modernization or future. And that is a problem. It has always been a problem. And for the last 16 years because we have been engaged in current combat operations, we have had to essentially mortgage our future in order to pay for the current war because we cannot send soldiers off into

combat who are not properly manned—their units—not properly trained, not properly equipped, and so on, which is the components of readiness. So we have to always pay high attention and have as a priority current readiness, the fight tonight, the here and the now, and then we have to balance that against future readiness or modernization, as you described.

But those systems, those technologies are a little bit further out for employment in ground forces. But it is crystal clear they are on the way. Some of them will advance faster than others, and they will result in some fundamental changes to how wars are fought.

Secretary SPEER. So, Senator, can I add to that? Because I think this is an important point also because that is where I feel over the last—since fiscal year 2013 with sequestration and with the BCA we have mortgaged that time period. We did not give to modernization, to the future. We did sustain science and technology, but we were not able to do the things we need to for the long term, sustain some of those things and commit to those. And I think that is why it was so important. We appreciate what we got in the 2017 budget. We need to continue on with the 2018 and beyond so we can continue to modernize for the future.

Senator UDALL. Thank you very much. I really appreciate it.

Mr. Chairman, I have a couple of questions for the record, but I will submit those and stay within my time here. Thank you.

Senator COCHRAN. Thank you, Senator.

The Senator from Illinois.

Senator DURBIN. Nothing further.

Senator COCHRAN. The Senator from Alabama.

Senator SHELBY. I have no other questions.

Senator COCHRAN. We understand that a Senator is on his way to the hearing room to be heard and has time expiring. But we will await his arrival for a reasonable time.

Secretary SPEER. So, Senator, can I take this opportunity then? My time—I have got a total of almost 38 years in the military between time in service and time as now 7 and a half years as a political appointee. I am Senate-confirmed.

I will tell you the professionalism of the Army, the soldiers that are in the Army is high quality. And as I walk out in the future, part of what I want to thank in front of this committee is my battle buddy right here, the Chief of Staff of the Army, who has got another couple years to go, maybe more. But it is professionalism of that and the oath to the Constitution that I find extremely important that you see the dedication those people have committed to.

And so I want to thank this committee once again. It is a lot of money we ask for, but you have both of our commitments, while we are here, to make sure it goes to the readiness and for the future readiness of our Army to do those things that need to be done that you have tasked us to do and we will continue to do.

Thank you.

Senator COCHRAN. We are continuing our hearing of the Defense Appropriations Committee. And our distinguished friend from Montana, Mr. Daines, has joined us and he is recognized at this time. We thank you for your participation in our hearing.

Senator DAINES. Mr. Chairman, thank you very much.

And, gentlemen, thank you for appearing before the committee this morning. The United States Army is one of our Nation's bedrock institutions. I am the son of a marine, but I am sure you will not hold that against me. You celebrated 242 years of service next week.

During that time, our soldiers have performed many honorable and distinguished feats, not the least of which is the discovery expedition into Montana, led by Captain Meriwether Lewis and Lieutenant William Clark. Today Montana is home to nearly 2,600 Army National Guard and 700 Army Reserve citizen soldiers who have carried our Nation's flag all over the world.

As we consider the President's budget for fiscal year 2018, I am pleased to see the Army is making positive strides towards restoring combat readiness. The success of our troops on future battlefields will be shaped by investment decisions that we will make today.

ACTIVE PROTECTIVE SYSTEMS

During his March testimony before this very committee, Secretary Mattis spoke about the need to maintain a conventional force able to take decisive action. For the Army, this means combined arms battalions able to withstand attacks from near-peer competitors. Given the proliferation of lethal anti-tank missiles, tank units across the country, such as the Charlie Company, the 163rd in Great Falls, Montana, require active protection in order to be decisively committed to hostile action.

General Milley, what is the Army's plan to field protection against guided missiles across our conventional ground forces, to include some of our Guard units like the 163rd?

General MILLEY. Thanks, Senator.

And like your father, my father hit the beach at Iwo Jima with the 4th Marine Division, amongst many other islands, and Secretary Speer as well were marines. So we are very proud of our service and appreciate you mentioning that.

With respect to active protective systems, it is a critical need. We are investing in that. Right now, there are only two countries whose industries produce complete systems. We, the United States, are working very, very fast to have the industrial base to produce some systems. So we have it out for contract right now. But what we are doing is working with one of these countries. One of them is friendly; one of them is not so friendly. So we are working with the friendly country right now to go ahead and acquire active protective systems, which we have. We are testing them right now to make sure that they fit onto our armored vehicles because they have to be modified for each of the type vehicles. And then we intend to field those to first responding units, and we will eventually field it throughout the force to the entire total Army, Guard, Reserve, and active.

By that time, however, we think the U.S. industrial commercial solutions will be available. We will probably put out at that point for competitive bid when we expand it to the entire Army.

But we are acquiring those. It is a very important capability. We want to make sure that our forces are adequately protected.

Senator DAINES. Thank you, General.

CYBER MISSION

I want to shift gears and talk a bit about cyber for a moment. In just 6 years, the DOD has amassed a robust capability to effectively defend its networks against a variety of hostile cyber threats while also supporting our operations overseas. The Army is and has been taking a leading role in growing this capability through its Center of Excellence at Fort Gordon.

It is fair to say, however, that the existing cyber mission force construct is just the beginning and really not the end. In fact, the Chief of the National Guard Bureau testified that cyber vulnerabilities exist in every State, which present appealing targets to our Nation's adversaries. It stands to reason that expanding defensive cyber capability within the National Guard would help address these threats and allow the active duty teams to focus on national threats and combatant commander requirements.

General Milley, would you agree that our current cyber mission is shouldering a demanding load and that our force might be able to benefit from increased Guard augmentation?

General MILLEY. There is no question. And your comment at the beginning about it is only a beginning that is very true. So we are fielding 61, 62 teams, cyber protection teams, throughout the total force. And there is no question that that is just the beginning of a growing capability not only in the Army, but the Navy, the Marines, the Air Force, and across CYBERCOM.

The electromagnetic spectrum writ large—cyber is a subset of that—is a critical vulnerability to not only us but also our opponents. So the ability to protect that system is very, very important to the Nation's defense, to the defense of the various States, to the military forces' defense, et cetera. We take it seriously. The Department of Defense takes it seriously, and we are very actively and aggressively building those capabilities.

Senator DAINES. Thank you.

Mr. Chairman, could I ask one more question?

Senator COCHRAN. The Senator is recognized.

Senator DAINES. Thank you, Mr. Chairman, and I am over my time, but we are also out of Senators here. So maybe I can ask one more question.

Senator COCHRAN. You are on home ground.

ADVANCED AVIATION TECHNOLOGY

Senator DAINES. All right. Thank you, Mr. Chairman.

I will say I am pleased to see in the fiscal year 2018 budget from the Army, it prioritizes research to increase our warfighting edge. At Montana State University—I am an alum—investments in advanced aviation technology have yielded innovative ways to make aircraft lighter, to make it faster, and make it more efficient. In fact, we have these stretch broken composites which allow major structural components such as cargo floors in heavy lift helicopters made entirely of a composite material that can reduce the overall weight of 350 pounds.

Another example certainly is composite barrel technology that we are seeing just to lighten the load that our soldiers are carrying in the field. Oftentimes the loads they are carrying can exceed 100

pounds, and by lowering that weight, of course, we can increase mobility and reduce the chance of injuries as well.

So kind of on two fronts—in fact, I carry now a composite barrel myself when I am in the field hunting. I like my 6.5 Creedmoor that has got the composite barrel. It is lightweight, extremely accurate. It also diffuses heat and helps keep the target groupings there after the barrel warms up.

So, General Milley, how is the Army leveraging this type of research to increase our mobility throughout some of the contested battlespace?

General MILLEY. There is always a tradeoff in terms of weight, power, lethality, protection. And we are pretty much, more or less, at the engineering limits of steel and the various types of steel, rolled, homogeneous steel, et cetera. So there is—and we are trying to fund—active research and materials in order to develop a material that gives you the equal amounts of protection at significantly lighter weights in order to increase mobility on a battlefield. That is for both vehicles and personal protection gear like the body armor plates and aviation vehicles, et cetera. So there is an active research and development.

We have not found the Holy Grail yet, but I believe that through adequate amounts of money and research and development at the various places out there, to include in your State at the University of Montana, I think that we will, over the course of time, next several years, develop and discover new materials that will essentially give us the same properties and protection or maybe even enhance the protection that we have now at significantly lighter weights.

Senator DAINES. Thank you.

General, thank you for your service and leadership to our country. It is a heartfelt gratitude. Thank you.

General MILLEY. Thank you, sir.

ADDITIONAL COMMITTEE QUESTIONS

Senator COCHRAN. If there are no further statements to be submitted for the record, we want to extend our appreciation to the witnesses that we have had before the committee. We thank you for your assistance.

We also will welcome any additional questions that Senators may submit in writing to our participants in the hearing.

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

QUESTIONS SUBMITTED TO HON. ROBERT M. SPEER

QUESTIONS SUBMITTED BY SENATOR ROY BLUNT

FORT LEONARD WOOD FOOD SERVICES CONTRACT

Question. Secretary Speer, I have repeatedly inquired about the status of a food services contract at Fort Leonard Wood (FLW).

Two Missouri entities—EDP Enterprises, Inc. (EDP), a minority owned food services vendor from Kansas City, and the State of Missouri's Department of Social Services (DSS)—have worked together since 2000 to provide cafeteria and meal services at Fort Leonard Wood.

For more than sixteen years this partnership has provided highly rated services to thousands of soldiers. There is now a conflict between those service providers and the Army.

When the Fort Leonard Wood's food service contract came up for review and award in February 2016, EDP and DSS submitted their proposal in March 2016, hoping to continue their successful history of providing food services.

However, it was determined that EDP's proposal was "technically unacceptable" and outside of "the competitive range" and thus would be excluded from any further consideration, which EDP appealed under litigation.

Just within the last few weeks, a Federal judge granted a temporary injunction in favor of EDP and DSS that will likely lead the two parties to arbitration without risk that the contract will be awarded to another vendor.

I am interested in seeing this situation resolved. I understand the difficulties in discussing the case due to litigation surrounding the issue, but I hope that this issue is resolved quickly.

I would like a commitment from you that officials at the appropriate level will do an independent review of this situation and attempt to find a less combative resolution.

In addition, I would like to know more about the following:

The Missouri State Licensing Agency (SLA) has been performing the contract for at least the past 10 years. The Solicitation issued by U.S. Army Mission and Installation Contracting Command (MICC) stated: "The SLA has been performing satisfactorily for 10 years and therefore are a viable competitor." Why is MICC management supporting the decision to exclude the SLA, which is given priority in the procurement pursuant to the Randolph-Sheppard Act?

Were the questions posed by MICC concerning the lines of communication between the SLA's team and the Army based on a documented lack of ability of the SLA to perform the requirements of the proposed contract or a lack of understanding of the SLA/blind vendor/contractor relationship pursuant to the Randolph-Sheppard Act?

Did MICC place the incumbent SLA at a disadvantage because MICC significantly underestimated the headcounts at the facilities to be served; eliminated excess Meal reimbursements entirely; and stated that the contractor would not be compensated no matter how much headcounts at a particular facility exceeded the estimated headcounts?

Did MICC fail to provide the priority required by the Randolph-Sheppard Act when it failed to recognize that the SLA proposed a trained staff currently performing the work for which its performance has been rated good to outstanding?

What can be done to move this to a negotiation to resolve any outstanding concerns by procurement officials and to permit the current contractors to have an extended multi-year opportunity to serve?

Answer. I have directed an independent review of this contract to ensure that the solicitation process was performed in accordance with applicable laws and regulations. Answers to your specific follow on questions are below.

Pursuant to the Randolph-Sheppard Act (RSA) the proposal submitted by a State Licensing Agency (SLA) is accorded a priority if the proposal is determined to be within the competitive range. The proposal submitted by the Missouri SLA was deficient in three of five major technical areas. Moreover, the price proposed by the Missouri SLA was approximately \$40 million higher than the price proposed by the lowest price offeror submitting a fully satisfactory technical proposal. The proposal of the Missouri SLA was not found to be in the competitive range for award. EDP's successful performance under the prior contract is appreciated and valued by the Army. To be fair to all offerors and to obtain effective competition for the Army, each proposal for the follow-on award must be evaluated against the technical, price, and other evaluation factors set forth in the Army's request for proposals. Accordingly, deficiencies in the incumbent's current proposal are not overcome by a history of satisfactory performance. If that were the case, incumbents would have little incentive to submit a strong proposal and offer competitive pricing in order to obtain a follow-on award.

To our knowledge there were no exchanges between the MICC and the Missouri SLA after receipt of proposals and before notification that its proposal was not within the competitive range. Since its proposal was not in the competitive range, there were no discussion questions.

MICC did not place the incumbent at a disadvantage. All offerors, including incumbents, were required to prepare a proposal based upon the content of the agency solicitation and follow all bidding instructions in regards to the agency's stated requirement. The information provided in the solicitation represents the agency's best estimate of its future needs based on current and historical analysis. The balance of the facts regarding this issue are in controversy and litigation and cannot be discussed.

As noted in response to question 1, above, the RSA priority is accorded when the proposal submitted by the SLA is determined to be within the competitive range. The reason the SLA's proposal was not afforded the RSA priority was because its proposal was determined not to be in the competitive range for award. The MICC could not legally give the SLA credit for information that it failed to insert in its proposal. The objective evaluation of the SLA's proposal determined it to be deficient in three of five major technical areas. Further, the Missouri SLA proposed a price that was approximately \$40 million higher than the price proposed by the offeror which was selected for award.

The Missouri SLA has exercised its right to contest the decision of the Army and has been awarded a preliminary injunction by a Federal district court. The next step in the process for bringing resolution to any outstanding issues with EDP and DSS is arbitration. Arbitration is a form of alternative dispute resolution that will provide an independent review.

GENERAL LEONARD WOOD ARMY COMMUNITY HOSPITAL

Question. I just want to take a quick moment to thank you for the inclusion of \$250 million in funding for phase 1 of the hospital replacement at Fort Leonard Wood.

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, active duty, retirees, and families, with few alternatives military health system providers in the surrounding area.

The project has repeatedly been deferred year after year so it is a positive development to see real funding included in the budget request this year.

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

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

Answer. The President's fiscal year 2018 budget requests \$250 million for phase one, inpatient services, of the Fort Leonard Wood Hospital Replacement. Phase two, primary care/outpatient services, current working estimate is \$135 million and begins approximately 4 years after start of phase one construction. Congressional support for the requested funds is necessary to maintain design and construction plans to best meet the healthcare needs of the Fort Leonard wood community. It may make sense to incrementally complete the Fort Leonard Wood Hospital as a single project. This approach provides an opportunity for the design and construction team to more fully integrate hospital and patient services.

The General Leonard Wood Army Community Hospital (GLWACH) does not anticipate any readiness shortfalls to develop in terms of existing hospital capabilities or capacity before the new hospital is built. GLWACH continues to make necessary investments to ensure we can meet the medical readiness and general healthcare delivery needs of Fort Leonard Wood. The new hospital will relieve the challenges related to operating a 50+ year old infrastructure and afford the team the opportunity to expand services and gain efficiencies in operations.

FORT LEONARD WOOD BASIC COMBAT TRAINING

Question. As you are both well aware, earlier this year, the Army announced that its troop levels for fiscal year 2017 will increase 28,000 soldiers across the total force.

Consequently, to support the overall increase in end strength, the Army announced that Fort Leonard Wood's Basic Combat Training mission will increase by approximately 4,500 soldiers in fiscal year 2017.

For the fiscal year 2018 budget proposal, end strength levels remain flat. However, the Army's unfunded requirement list requests 17,000 more Soldiers; with 10,000 troops for the active Army; 4,000 for the Army National Guard; and 3,000 for the Army Reserve.

I have consistently supported efforts, including efforts like the POSTURE Act lead by Senator Moran, to increase and fund, Army end strength levels, which will help address readiness issues and stabilize the problems that are making it difficult for our troops to accomplish their mission.

Evident by the capacity Fort Leonard Wood has to handle the fiscal year 2017 increase, there is no reason that Fort Leonard Wood cannot, at a minimum, permanently handle the temporary increase in training in fiscal year 2017.

Do you have any thoughts you would like to share about where you see Army end strength levels going and the necessity to rebuild end strength numbers for future missions?

Does the Army have the necessary initial entry training capacity to facilitate end strength growth?

Where are our best opportunities for investments at installations such as Fort Leonard Wood?

How does the current budget invest in this area?

Answer. Secretary Mattis is leading a rigorous and detailed strategic review of the Defense Planning Guidance and the National Military Strategy. Those reviews will provide direction for future required capabilities. The Army will evaluate our preparedness to meet the revised Defense Planning Guidance and National Military Strategy when those updated documents are provided.

Question. Does the Army have the necessary initial entry training capacity to facilitate end strength growth?

Answer. Yes. The Training and Doctrine Command (TRADOC) and the Army invested \$40.1 million this fiscal year for additional training seats and leveraged existing structure/facilities to meet an increase of 6,000 personnel in the training mission in support of a 476,000 end strength. For example, TRADOC and the Army spent \$4.9 million to upgrade 13 company barracks, 3 battalion headquarters and 2 dining facilities at Fort Leonard Wood to meet the increase in the training load.

Question. Where are our best opportunities for investments at installations such as Fort Leonard Wood?

Answer. The Training Barracks Upgrade Program (TBUP) and associated military construction projects at Basic Training/One Station Unit Training installations (Jackson, Sill, Benning and Leonard Wood) are programmed for fiscal year 2018 and fiscal year 2019. Accelerating these projects would be problematic due to a lack of swing space (e.g., some installations would need additional resources and time to construct temporary billeting in order to allow upgrades to occur).

Question. How does the current budget invest in this area?

Answer. The fiscal year 2018 President's budget request is for \$619.6 million to fund Army Civilians, contractors, school houses, and base operations in support of Initial Military Training. The \$619.6 million includes an increase of \$76.8 million over the fiscal year 2017 President's budget (\$542 million), including costs associated with the increase in end Strength.

ACTIVE PROTECTION SYSTEMS

Question. I am concerned about Russian aggression in Eastern Europe and the proliferation of anti-armor weapons that could harm U.S. troops and equipment forward stationed abroad.

I have been an advocate for our men and women who will serve to deter Russian aggression abroad and believe we must do everything we can to equip and protect them against any threat. I wrote a letter to the Army in 2016 urging adoption of APS (Active Protection Systems) and recently received a briefing from the Army on APS efforts.

The President's fiscal year 2018 request contains \$138.7M in OCO to procure non-developmental Active Protection Systems for Abrams. Additionally, the Army submitted an Unfunded Requirement for \$254 million for additional air and ground Active Protection Systems.

The Army is on record that Active Protection Systems are a high priority.

Proven, non-developmental, fielded combat solutions are available and I am particularly interested in how the Army intends to procure and field these systems starting in fiscal year 2018 and into the future.

In the budget justification documents submitted with the President's request, the Army outlines plans to fund a "Division sized prepositioned set of equipment in Europe" using European Reassurance Initiative Funds. However, the Army only requests enough funding for a Brigade's worth of APS for Abrams in OCO, and not a Division.

Does the Army intend to outfit additional brigades with APS in fiscal year 2018? If the Army is planning to have a division sized element in Europe, will some equipment not have APS?

With funding in the fiscal year 2018 budget, what are the Army's plan to have APS under contract for procurement in the event of a Continuing Resolution in the First Quarter of fiscal year 2018 in order to ensure there is no delay in fielding this priority?

The combat-proven, mature APS technology is ready now to ensure the protection of our troops abroad. We all agree we want to expeditiously procure and field APS to meet the Army's stated timelines.

What contracting authorities/methods is the Army pursuing to procure APS? Is the Army considering using Other Transactional Authorities (OTAs) or existing contracts with APS providers to rapidly procure these systems?

I understand the Army is intent on testing multiple APS systems, some more developmentally advanced than others, to quickly gather data.

Is it the Army's intent to field multiple different systems if one common solution can be found for all Army vehicles? Is there an advantage to finding a common non-developmental APS for Abrams, Bradley, and Stryker that is combat-proven and can be fielded quickly?

Answer. The Army's fiscal year 2018 budget request would fund the Active Protection System (APS) for one brigade of Abrams tanks. Once procured, the APS will undergo characterization and platform integration, before being fielded in fiscal year 2020. Additionally, the Army plans to put APS on one Armored Brigade (BDE) Combat Team (ABCT) of Bradley, and one battalion of Strykers by the end fiscal year 2020. The Army will take the lessons learned from the units with APS, and based upon successful demonstration of APS capabilities, the Army will seek to accelerate the Program of Record, Vehicle Protection Suite (VPS), to unprotected platforms in the future. This will leave the rotational ABCT's Abrams tanks and Bradley Fighting Vehicles, as well as 2CR's three Stryker Battalions in Europe without APS in the interim, but this is a necessary risk to ensure we get the right capability.

If there is a Continuing Resolution in fiscal year 2018, it will introduce risk to the procurement of long-lead items, but the Army still believes it can meet the requirement to put APS on an ABCT by the end of fiscal year 2020. The Army does not plan to start APS procurement until second quarter of fiscal year 2018.

As far as contracting authorities/methods are concerned, the Army is reviewing potential country to country program agreements, and is prepared to use Other Transaction Authorities and Production Memorandum of Understandings to support rapid procurement of APS kits.

To address your last question, no, the Army does not intend to field multiple systems if one common solution can be found for all Army vehicles. The VPS program of record, once established, will maximize the use of a common APS across Army platforms. For the initial set of APS, however, the priority is to get the capability into our Soldiers' hands in Europe as quickly as possible. This does require the use of several different APS systems, because currently available APS are not one size fits all. Current APS systems fit and perform better on different platforms.

QUESTIONS SUBMITTED BY SENATOR PATTY MURRAY

YAKIMA TRAINING CENTER

Question. The Army manages multiple large training ranges in the western United States, including the Yakima Training Center in Washington State.

Like much of the west, these ranges are regularly under the threat of wildfire.

The Yakima Training Center can see tens of thousands of acres burned a year. The base has the responsibility to manage the threat and fight fires when they occur.

While the Yakima Training Center will benefit from the fire house military construction project in the fiscal year 2018 President's Budget, the last few fire seasons have strained resources at the training center and in Washington State in general.

With wildfire season upon us, do you have all of the necessary personnel and resources at the Yakima Training Center to successfully manage the fire season this year?

Answer. Yes, an Integrated Wildland Fire Management Plan is in place at Yakima Training Center, along with the firefighting resources available through the National Interagency Fire Center in Boise, Idaho; and Mutual Aid Agreements at the State, regional, and local levels. An Army aviation unit provides on-site wildland firefighting capability at Yakima. In addition to the aerial capability, our organic Army firefighters carry the national credentials to work with and lead ground wildland firefighting efforts on Army ranges and installations.

IUID IMPLEMENTATION

Question. Secretary Speer, what is the justification for the steep cuts to the CH-47 Cargo Helicopter Mods (MYP) account in the Fiscal Year 2018 President's Budget Request (PBR)? The fiscal year 2017 PBR requested \$189 million for this account in fiscal year 2018. The recently released Army budget only contains \$20 million, for an approximate cut of \$170 million. What modifications will no longer occur or be delayed by this budget action?

Within this account, the CH-47 Program Office funds “Aircraft Component Parts-Marking” efforts. In recent years, Congress has shown increased interest in Item-Unique Identification (IUID) efforts to better track parts data, provide more supply chain management fidelity, and ensure that parts-marking efforts are better integrated within the Army. The Committee has been pleased by the efforts of the CH-47 program office to adhere to the Army’s and DoD’s IUID policies and guidance. How does the CH-47 program office plan to continue their IUID implementation efforts under the proposed fiscal year 2018 budget cuts?

In the fiscal year 2017 Defense Appropriations Bill, Congress gave the CH-47 Cargo Helicopter Mods (MYP) Line Item an increase of approximately \$60 million over the requested amount from the Army. This action was partly taken to ensure increased implementation of IUID efforts across the Ch-47 program. Please describe how the CH-47 Program Office plans to utilize the increased appropriated funds to continue IUID implementation efforts.

Answer. Of the approximate \$170 million (M) cut to the CH-47 Cargo Helicopter Mods in the fiscal year 2018 President’s Budget Review, \$76 million was converted to Research, Development, Test and Evaluation to support the CH-47 Block II Product Improvement account and \$11 million went to the CH-47 Renew account to support the procurement of four MH-47G aircraft. The remaining funding was used to support other Army priorities.

Many of the modifications in the CH-47 Cargo Helicopter Mods account have been rolled up into the CH-47F Block II Product Improvement Program and will continue to be funded as part of that effort. Modification efforts supporting Cargo Platform Health Environment, Improved Vibration Control System, Adjustable Pitch Change Link and Engine Improvements continue at a slower rate for older CH-47F Multi-Year I aircraft. No modification programs have been eliminated. fiscal year 2018 CH-47 Cargo Helicopter Mods funding will be used to procure Improved Troop Seats and critical safety modifications. No fiscal year 2018 funding will be available for “opportunistic” Item-Unique Identification (IUID) efforts.

The CH-47 Cargo Helicopter Program Office continues to adhere to the Army’s and the Department of Defense’s IUID policies and guidance. IUID requirements are included in the office’s design requirements, as applicable. All new aircraft, parts and components that are procured, are in compliance with IUID requirements as part of their particular procurement contract.

The fiscal year 2017 National Defense Authorization Act did not appropriate the \$60 million of additional funding for the CH-47 Cargo Helicopter Mods account that was requested as part of the RAA’s Request for Additional Appropriations (RAA). Given the proximity of submitting both the President’s Budget (PB) 2017 and 2018 budgets, the PB 2018 request assumed the additional \$60 million would be approved. These additional dollars were not approved. Therefore, CH-47 Cargo Helicopter Mods is executing the original PB 2017 request for \$102.9 million, of which \$4.05 million is projected to support IUID efforts in fiscal year 2017.

STRYKER VEHICLES

Question. I am very concerned that the Army did not request funding in fiscal year 2018 President’s Budget Request for upgrading Stryker vehicles. If this decision is not reversed, the Stryker industrial base will start shutting down in fiscal year 2019, only two-thirds of the 4th Stryker Brigade Combat Team will be upgraded to the Double-V Hull variant, and there will be a significant production gap for the next set of Stryker Lethality vehicles.

What is the Army’s plan to up-gun its remaining Stryker brigades with Stryker Lethality vehicles? Given world events, is there another brigade that has been identified to receive this Lethality upgrade?

What would be the impact on the Army’s modernization plan for the Stryker brigades if a decision is made to stop upgrades of Stryker vehicles with both the Double-V Hull known to save soldiers’ lives and the latest engineering changes that provide more power, stability and off-road mobility?

Answer. The Army has not requested fiscal year 2018 funding to upgrade any additional Strykers to the 30 millimeter configuration. As far as up-gunning the remaining Stryker brigades with Stryker Lethality, the Army is currently developing the requirement for the remaining eight Stryker Brigade Combat Teams (SBCT). While the Army will field the 2nd cavalry Regiment’s (2CR) 30 millimeter Strykers in 4th Quarter Fiscal Year 2018 (4QFY18), we have not determined if that is the best lethality solution for the rest of the fleet. A second brigade has not been identified for this form of lethality. Schedule, cost, and capability remain the priority for increased lethality in the SBCT. Lethality options will be presented to the Chief of

Staff in 4th quarter fiscal year 2017. These options all include near-term lethality upgrades to another Stryker brigade, which will be determined by Army priorities.

The Army has not made a decision to halt ECP 1 or the 4th (Double-V Hull) DVH brigade. A decision to stop the DVH ECP 1 would mean the current DVH fleet would lack the mobility and power of the Flat Bottomed Hull fleet. The DVH fleet would be less capable and would be at increased risk for future modifications due to the inability to receive more weight or provide for increased power demands.

In terms of the overall program, the Army requested \$97.6M for Stryker modification in fiscal year 2018 for Stryker training aids, devices and simulations, Stryker Lethality hardware, parts and various fleet-wide modifications including addressing Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance obsolescence. Additionally, the fiscal year 2018 Unfunded Requirements list includes requests for funding for a 4th DVH brigade and a second set of up-gunned Strykers.

QUESTIONS SUBMITTED BY SENATOR TOM UDALL

CLIMATE CHANGE

Question. How concerned is the Army about the implications of climate change on our national security? With more people moving to the coasts, is the Army concerned that this could create new security dilemmas as the climate changes?

Answer. The Army takes the national security implications of a changing climate very seriously. Changes in the climate can impact deployments and the conduct of operations due to adverse weather and the migration of population to coastal areas that are particularly susceptible to adverse weather. Our National Guard and Corps of Engineers are called on to respond to disasters and damage to critical infrastructure. Currently, nearly half of the cost of major construction projects in the Army's fiscal year 2016 military construction budget addresses risk and damage associated with a changing climate. The Army is doing its part to mitigate and adapt to the impacts of climate change. Through our "Net Zero" initiative, we have made significant progress toward the sustainability and the resiliency of our installations—communities in case of a natural disaster. The Army remains engaged with DoD and the other Services in evaluating the impact of a changing climate on national security.

QUESTIONS SUBMITTED TO GENERAL MARK A. MILLEY

QUESTIONS SUBMITTED BY SENATOR ROY BLUNT

NON-DEVELOPMENTAL ITEMS AND ARMY TACTICAL RADIO PROCUREMENT AND FIELDING

Question. What is the Army's position regarding the procurement of non-developmental items (NDI) related to networked communications modernization?

Does the Army agree that industry incentive to invest in independent research and development (IRAD) is often negatively impacted by sudden changes in Army requirements, especially after a significant amount of investment made by industry?

How will the Army's new fiscal year 2018 tactical radio procurement plan impact the fielding of tactical radios to soldiers, compared to the fiscal year 2017 FYDP plan?

The Army is currently engaging in a comprehensive review of its network, which could potentially result in additional changes to requirements and procurement strategies. When will the Army finalize and release any changes to this strategy?

Answer. Non-Development Items help drive down cost and incentivize industry to compete its best product. Recent independent reviews and studies of the Army's tactical network strategy suggest that the Army should look at commercial products that are not constrained to government waveforms or communication software. The Army continues to review its acquisition strategy for opportunities to provide the best product to our Soldiers, at a competitive price, in a timely matter.

The Army agrees industry's incentive to invest in internal research and development (IRAD) may be negatively impacted by sudden changes in Army requirements. The Army communicates regularly with industry partners and is fully aware of the concern industry has with requirements changes, especially after they have invested significant amounts of IRAD dollars.

Fiscal year 2018 plan is to procure both Manpacks and 2-channel Leader Radios at a rate to equip two Brigade Combat Teams per year beginning in fiscal year 2019.

The Army plans to release changes to the network strategy incrementally. The ongoing comprehensive network review includes the Warfighting, Business, Intelligence and Enterprise portions of the Network. The Army is currently reviewing the tactical portion of the Network. Any changes resulting from this review will be released following approval by the Secretary and Chief of Staff of the Army's.

QUESTIONS SUBMITTED BY SENATOR PATTY MURRAY

CREDENTIALING PROGRAM

Question. Transition is an important part of a soldier's career, perhaps the most important because the transition stage shapes the soldier's re-entry into the civilian community. This process is better when a soldier transitions into a career position commensurate with their experience. Acquiring a license or credential while still in the Army is a good way to find one of these career positions.

In March I met with the Sergeant Major of the Army and was impressed by his proposals to expand credentialing opportunities to more soldiers, especially those in specialties like combat arms where the private sector does not always see how those skills are still valuable.

A recent report from Training and Doctrine Command found soldiers would be more likely to stay in the Army if provided the opportunity to acquire self-directed credentials. And credentialing more soldiers is almost certain to reduce unemployment compensation for ex-servicemembers.

What can the Army do now to improve access to self-directed credentialing for soldiers, and where do you need help from Congress?

Answer. We recognize that credentialing promotes Soldiers' professionalism, competence, and readiness while in uniform, and prepares them for civilian careers post-Service. The Army COOL (Credentialing Opportunities On-Line) assists Soldiers in finding information on certifications and licenses. Army Soldiers may pursue credentialing opportunities related to, or independent of, their Military Occupational Specialty (MOS) training. COOL provides detailed information on: credentials related to an Army MOS, credential requirements and potential gaps between Army training and civilian credentialing requirements, and resources available to fill gaps between military training and civilian credentialing requirements.

To encourage Soldiers to pursue credentials, promotion points are awarded to Army Soldiers for earning certain credentials related to their Military Occupational Specialty.

Currently, Soldiers may receive funding support for credentialing exams and licensing fees for credentials related to their MOS. We are developing additional options to help Soldiers pay for self-directed credentialing training and education, and are requesting that DoD expand the use of Tuition Assistance for credentialing. Army anticipates piloting a self-directed credentialing Limited User Test (LUT), with a diverse list of select, high value credentials in at least one installation (to be determined). We will use the lessons learned from the LUT to develop operational and resource requirements for expanding self-directed credentialing across the Army enterprise. Based on the results of the pilot, we may come to Congress with a request for additional funding for an enterprise credentialing program. At this time we do not need additional help but we appreciate Congress' continuing interest in, and support of, education, training, and credentialing opportunities for Soldiers.

QUESTIONS SUBMITTED BY SENATOR TOM UDALL

URBAN WARFARE SCHOOL

Question. The Modern War Institute at West Point recently released a series of reports on urban warfare. Many of them pointing towards demographic trends showing increased urbanization in countries where resources and infrastructure are scarce. Many of these cities are also located on the coast, and are vulnerable to hurricanes and other disasters . . . increasing the likelihood of violence and chaos in these urban areas where political and security vacuums may develop.

While not desirable to fight in an urban area, we may not have a choice. I understand that some special operations training for urban warfare is carried out today in multiple locations in New Mexico such as White Sands and Melrose Range. White Sands is also notable because of its complete control of the electromagnetic spectrum enabling more comprehensive training. How is the Army training for urban environ-

ments and is the Army considering a dedicated urban warfare school that will include the ability to control the electromagnetic spectrum?

Answer. Army units use our combat training centers, as well as Military Operations on Urban Terrain (MOUT) capabilities available at Fort Knox and Fort A.P. Hill, and other home-station training sites to conduct training for urban environments. Urban terrain is included in all Warfighter exercises.

The urban environment will be addressed in the new version of Field Manual 3-0, Operations and is in Army Techniques Publication (ATP) 3-06, Urban Warfare just published in March 2017. The Army is also developing a Dense Urban Terrain (DUT) Strategy and will evaluate our capabilities and needs when the strategy is complete. The Army is not currently considering a separate and distinct urban warfare center.

FOREIGN AFFAIRS EXPERTS

Question. One of the most noted failures of the Iraq occupation was the lack of subject matter and cultural experts. While I hope that there is no need for them in any future war, in your opinion does the Army have a strong pipeline of these type of foreign area experts that could be utilized in a contingency? And if not, what does the Army need to strengthen this pipeline?

Answer. In my opinion, the Army has a strong pipeline of foreign area experts available for contingencies. The Army values foreign area expertise, with a forward presence in 139 countries and within all functional and geographic Combatant Commands. The Army Foreign Area Officer (FAO) program continues to be the Department of Defense (DoD) “gold-standard” for the development and permanent utilization of officers who provide cultural, regional and language expertise. Since 2003, the Army has increased manning by 20 percent and increased training for our FAOs. To sustain our investment, we have funded programs to enhance FAO language skills and realign officers to meet contingencies. Finally, the program continuously reviews policy and utilization to ensure the FAO Corps can support current and emerging National Security requirements.

AIR THREATS

Question. A report from War on the Rocks stated that “For decades, American air dominance has gone almost uncontested, and ground forces have all but forgotten they can be touched from above. But thanks to the proliferation of small, low-cost drones and desktop manufacturing, that paradigm is now changing—and quickly.” The report also stated that “the United States has a force that, at the fighting level, remains shockingly and dangerously unaware the threat even exists.” Do you agree with this assessment and how is the Army working to prepare soldiers to counter and address this evolving threat?

Answer. We are very aware of the threat posed by low-cost drones and are taking action against this threat. We have prioritized Army investment in Counter-Unmanned Aircraft Systems (C-UAS) solutions e.g., Maneuver Short Range Air Defense (M-SHORAD), Stinger with proximity fuze (Stinger-Prox), and Indirect Fire Protection Capability Increment 2—Block I (IFPC Inc. 2-I). Soldiers engaged in today’s fight are implementing time tested tactics, techniques and procedures in “passive air defense” while the Army is engaged in urgent fielding of emergent C-UAS equipment and determining which solutions warrant becoming a program of record.

THIRD OFFSET AND DEFENSE INNOVATION UNIT EXPERIMENT

Question. Does the Army support an expansion of the Third Offset to include a DIUx (Defense Innovation Unit Experiment) office located near a national security lab and military research lab working on military solutions such as machine learning, directed energy, space, and other technological research? How would the Army benefit from such an expansion and how would the Army utilize a new DIUx office?

Answer. The Army supports opportunities to partner with non-traditional high-tech innovators and businesses that do not typically partner with the Department of Defense (DoD). The Army Research Laboratory has established a new concept called Open Campus, a collaborative endeavor with the goal of building a science and technology ecosystem with non-traditional partners that will encourage groundbreaking advances in basic and applied research areas of importance to the Army, to include machine learning, directed energy, manned-unmanned teaming, and artificial intelligence. Army scientists and engineers work side-by-side with collaborators both at Army facilities and at partner institutions around the United States. The Army is evolving the Open Campus initiative to establish a DoD presence in regions of the country with strong technology invention and innovation track records. Collating an Army laboratory or Open Campus site with a DIUx cell may

accelerate proof of concept assessments, enable rapid refinement of prototypes, and integrate technology readiness concerns earlier in the innovation and adaptation cycle or result in other benefits. The Army utilizes DoD partners such as Defense Innovation Unit Experiment (DIUx) to foster identification of new collaboration opportunities and supports an opening for partnership opportunities within the technology sector.

AFGHANISTAN POLICY REVIEW

Question. What is your role in the Afghanistan policy review? How many meetings have you or your staff had with the White House or with Secretary Mattis? Can you please summarize your proposal for the Army's participation in any future military activities in Afghanistan and how much the additional resources will cost?

Answer. My role in the Afghanistan policy review, thus far, has been to provide best military advice to the CJCS and SecDef informed by my experience, judgment, and my visits to the AOR. The Army is ready to support the Combatant Command's request for force increase in Afghanistan. The Army will likely be asked to provide key enablers such as aviation, intelligence, medical, and explosive ordinance disposal assets, at a minimum, as part of the proposed Expeditionary Advising Packages. Since the actual forces and numbers, by Service, have not been finalized, we do not yet have an estimated cost for these additional Army resources.

SUBCOMMITTEE RECESS

Senator COCHRAN. The Defense Subcommittee will reconvene on Wednesday, June 14, 2017, at 10:30 a.m. in the morning. We will receive testimony from the Secretary of Defense and Chairman of the Joint Chiefs of Staff.

Until then, the subcommittee stands in recess.

[Whereupon, at 11:50 a.m., Wednesday, June 7, the subcommittee was recessed, to reconvene at 10:30 a.m., Wednesday, June 14.]