

**DEPARTMENT OF DEFENSE APPROPRIATIONS  
FOR FISCAL YEAR 2017**

**WEDNESDAY, APRIL 27, 2016**

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

The subcommittee met at 10:39 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Thad Cochran (chairman) presiding.  
Present: Senators Cochran, Shelby, Collins, Murkowski, Graham, Blunt, Daines, Moran, Durbin, Reed, Tester, and Udall.

DEPARTMENT OF DEFENSE

OFFICE OF THE SECRETARY OF DEFENSE

**STATEMENT OF HON. ASHTON B. CARTER, SECRETARY  
ACCOMPANIED BY MIKE MCCORD, UNDER SECRETARY OF DEFENSE  
(COMPTROLLER) AND CHIEF FINANCIAL OFFICER**

OPENING STATEMENT OF SENATOR THAD COCHRAN

Senator COCHRAN. The Subcommittee on Defense Appropriations of the United States Senate will please come to order.

We want to welcome the Honorable Ashton B. Carter, Secretary of Defense, and General Joseph F. Dunford, Chairman of the Joint Chiefs of Staff.

This is our first review of the 2017 defense budget request with these witnesses. The subcommittee understands the challenges that we face in developing the content and setting the limits of spending for the Department of Defense. We look forward to our distinguished panel of witnesses and thank them for their distinguished service to the U.S. military and our country.

I will first recognize General Joseph Dunford in his first appearance before the Defense Subcommittee and as Chairman of the Joint Chiefs of Staff. We are grateful for your leadership and appreciate your appearance before our committee.

We also are pleased to have the Secretary of Defense, Ashton Carter, who is a person we've gotten to know pretty well over time in his distinguished service.

[The statement follows:]

PREPARED STATEMENT OF SENATOR THAD COCHRAN

Good morning, the Subcommittee on Defense Appropriations of the United States Senate will please come to order. We want to welcome the Honorable Ashton B. Carter, Secretary of Defense, and General Joseph F. Dunford, Jr., Chairman of the Joint Chiefs of Staff.

This is our first review of the fiscal year 2017 defense budget request with these witnesses. The Subcommittee understands the challenges we face in developing the content of the budget for the Department of Defense.

We look forward to our panel of witnesses and thank them for their distinguished service to the U.S. military and our country.

I am pleased to recognize General Joseph Dunford in his first appearance before the defense subcommittee as Chairman of the Joint Chiefs of Staff. General Dunford, we are grateful for your leadership and appreciate your appearance before our subcommittee.

I am also pleased to have Secretary of Defense Ashton Carter, who is a person we have gotten to know pretty well over time during his distinguished service. Mr. Secretary, we ask you to proceed to make any opening statements that you think will be helpful to the committee's review of the Department's budget request.

Senator COCHRAN. Secretary of Defense, we ask you to proceed to make any opening statements that you think would be helpful to the committee's review of the Department's budget request.

#### SUMMARY STATEMENT OF HON. ASHTON B. CARTER

Secretary CARTER. Thank you, Chairman Cochran, distinguished members, appreciate your having me here, Chairman Dunford, and Under Secretary McCord today, and above all, for steadfastly supporting our men and women, military and civilian alike, who serve and defend our country all over the world.

Over the last 2 weeks, I visited many of these troops in the Asia-Pacific and the Middle East, and I couldn't be prouder of what they are doing to advance our security, stand by our friends and allies in those critical regions.

I am pleased to be here with Chairman Dunford to discuss President Obama's 2017 defense budget, which marks a major inflection point for the Department of Defense. In this budget, we're taking the long view, we have to, because even as we fight today's fights, we must also be prepared for what might come 10, 20, 30 years down the road.

Last fall's Bipartisan Budget Act gave us some much needed stability after years of gridlock and turbulence, and I want to thank you and your colleagues for coming together to help pass it. That budget deal set the size of our budget, and with this degree of certainty, we focused on its shape, changing that shape, in fundamental but carefully considered ways to adjust to a new strategic era and to seize opportunities for the future.

Let me describe the strategic assessment that drove our budget decisions. First of all, it is evident that America is still today the world's foremost leader, partner, and underwriter of stability and security in every region of the world, as we have been since the end of World War II. That's thanks in large part to the unequivocal strength of the United States' military, and as we continue to fulfill this enduring role, it's also evident that we're entering a new strategic era.

Today's security environment is dramatically different from the last 25 years, requiring new ways of investing and operating. Five evolving strategic challenges—namely, Russia, China, North Korea, Iran, and terrorism—are now driving DOD's (Department of Defense) planning and budgeting as reflected in this budget.

I want to focus first on our ongoing fight against terrorism, and especially ISIL (Islamic State of Iraq and the Levant), which we must and will deal a lasting defeat, most immediately in its parent

tumor in Iraq and Syria, but also where it's metastasizing, and all the while we're continuing to help protect our homeland.

Let me give you a quick snapshot of what we're doing to pressure and destroy ISIL's parent tumor in Iraq and Syria, beginning with Iraq, which Chairman Dunford and I both visited over the course of the last week. There, with our support, Iraqi Security Forces (ISF) retook Ramadi; have been reclaiming further ground in Anbar Province, mostly recently, the city of Heet; and along with Iraqi Kurdish forces, have begun operations to isolate and pressure Mosul, with the intent of collapsing ISIL's control over that city.

As we've made this progress, and with momentum in this campaign clearly on our side, last week in Baghdad, I announced a number of key actions we're taking to continue accelerating our campaign against ISIL.

We'll be placing advisors with the ISF, that is, the Iraqi Security Forces, down to the brigade and battalion level to help enhance decisionmaking and responsiveness. We'll be leveraging Apache attack helicopters to support the ISF's ongoing efforts to envelop and then retake Mosul. We'll send additional HIMARS (High Mobility Artillery Rocket System) to support the Iraqi ground offensive there. We'll provide financial assistance to the peshmerga, up to \$415 million, to bolster one of the most effective fighting forces against ISIL. And to do all this, we're going to need to adjust how we use our forces already there and also bring in about 215 more of them. As in the past, President Obama has approved all these actions at my and the Chairman's recommendation.

We're also doing more in Syria. As the President announced earlier this week, we're increasing U.S. forces there sixfold, from 50 to 300. This comes after capable and motivated local forces supported by our coalition retook the east Syrian town of Shaddadi, severing the last major northern artery between Raqqa and Mosul, and, therefore, between ISIL and Syria, and ISIL and Iraq. These additional 250 personnel, including Special Operations Forces, will help expand our ongoing efforts to identify, train, and equip capable, motivated local forces inside Syria to help isolate and pressure Raqqa. They will also serve as a hub to incorporate partner SOF (Special Operations Forces) from both longstanding traditional allies and Gulf countries to augment our coalition's counter-ISIL efforts there.

I should note, however, that Syria is an area where we need your help, particularly in releasing \$349 million in Section 1209 funds to help train and equip our partners on the ground, which is a centerpiece of our strategy there.

All of this comes on top of what we've already done to accelerate the military campaign, such as intensifying our air campaign based on new intelligence, introducing an expeditionary targeting force, and expanding the fight against ISIL to every domain, including cyber and space. And as we're accelerating our overall counter-ISIL campaign, we're backing it up with increased funding for 2017, requesting 50 percent more than last year.

But I have to say much still hinges on the nonmilitary aspects of countering ISIL, particularly efforts to address political and economic challenges in both Iraq and Syria. That's critical to ensuring that ISIL stays defeated.

Next, two of the other four strategic challenges reflect a return in some ways to great-power competition. One is in Europe, where we're taking a strong and balanced approach to deter Russian aggression. We haven't had to devote a significant portion of our defense investment to this possibility for a quarter century, but now we do.

The other challenge is in the Asia-Pacific where China is rising, which is fine, but behaving aggressively, which is not. There we're continuing our rebalance to the region to maintain the stability we've underwritten for the past 70 years, enabling so many nations to rise and prosper in this, the single most consequential region of the world for America's future. And as I saw in India and the Philippines at the beginning of my trip, our engagement in the Asia-Pacific is deeply appreciated and in high demand by enduring allies and new friends alike.

Meanwhile, two other longstanding challenges pose threats in specific regions. North Korea is one, and that's why our forces on the Korean Peninsula remain ready, as they say, to "fight tonight."

The other is in Iran, because while the nuclear accord is a good deal for preventing Iran from getting a nuclear weapon, we must still deter Iranian aggression and counter Iran's malign influence against our regional friends and allies, especially Israel, to which we maintain an unwavering and unbreakable commitment, and also our Gulf partners, with whom I met last week in Abu Dhabi and Riyadh.

Now, addressing all of these five challenges requires new investments on our part, new posture in some regions, and also new and enhanced capabilities. For example, we know we must deal with these challenges across all domains, not just the usual air, land, and sea, but also especially in cyber, electronic warfare, and space, where our reliance on technology has given us great strengths and great opportunities, but also led to vulnerabilities that adversaries are eager to exploit.

Key to our approach is being able to deter our most advanced competitors. We must have and be seen to have the ability to ensure that anyone who starts a conflict with us will regret having done so.

In our budget, our capabilities, our readiness, and our actions, we must and will be prepared for a high-end enemy, what we call full-spectrum. In this context, Russia and China are our most stressing competitors, as they have both developed and continue to advance military systems that seek to threaten our advantages in specific areas. We see them in Crimea, Syria, and the South China Sea. In some cases, they're developing weapons and ways of war that seek to achieve their objectives rapidly before they think we can respond. Because of this, DOD has elevated their importance in our planning and budgeting.

In my written testimony, I have detailed how our budget makes critical investments to help us better address these five evolving challenges. We're strengthening our deterrence posture in Europe by investing \$3.4 billion for the European Reassurance Initiative, quadruple what we requested last year. We're prioritizing readiness and training for our ground forces, and reinvigorating the readiness and modernization of our fighter aircraft fleet. We're in-

vesting in innovative capabilities, like the B-21 Long-Range Strike Bomber, micro-drones, and the Arsenal Plane, as well as advanced munitions of all sorts.

In our Navy, we're emphasizing not just increasing the number of ships, which we're doing, but especially their lethality, with new weapons and high-end ships, and extending our command elite in undersea warfare, with new investments in unmanned undersea vehicles, for example, and more submarines with a versatile Virginia Payload Module, that triples their strike capacity from 12 Tomahawks to 40.

And we're doing more in cyber, electronic warfare, and space, investing in these three domains a combined total of \$34 billion in 2017. Among other things, this will help build our cyber mission force, develop Next-Generation Electronic Jammers, and prepare for the possibility of a conflict that extends into space. In short, DOD will keep ensuring our dominance in all domains.

As we do this, our budget also seizes opportunities for the future. That's a responsibility I have to all my successors, to ensure the military and the Defense Department they inherit is just as strong, if not stronger, than the one I have the privilege of leading today. That's why we're making increased investments in science and technology, innovating operationally, and building new bridges to the amazing American innovative system, as we always have, to stay ahead of future threats. That's why we're building what I've called the Force of the Future, because as good as our technology is, it's nothing compared to our people. And in the future, we must continue to recruit and retain the very best talent. Competing for good people for an all-volunteer force is a critical part of our military edge, and everyone should understand this need and my commitment to meeting it.

And because we owe it to America's taxpayers to spend our defense dollars as wisely and responsibly as possible, we're also pushing for needed reforms across the DOD enterprise, and we need your help with all of them, from continuously improving acquisition, to further reducing overhead and excess infrastructure, to modernizing and simplifying TRICARE, to proposing new changes to the Goldwater-Nichols Act, that defines much of our institutional organization.

Let me close on the broader shift reflected in this budget. The Defense Department doesn't have the luxury of just one opponent or the choice between current fights and future fights. We have to do them both, and that's what this budget is designed to do, and we need your help to succeed.

I thank this committee again for supporting the Bipartisan Budget Act that set the size of our budget. Our submission focuses on the budget shape, making changes that are necessary and consequential. We hope you approve it.

I know some may be looking at the difference between what we indicated last year we would be asking for and what the budget deal gave us, a net total of about \$11 billion less. It is provided by the Bipartisan Budget Act out of a total of almost \$600 billion. But I want to reiterate that we've mitigated that difference and that this budget meets our needs. And in this context, I have serious concerns with a proposal from one of the defense committees to

underfund DOD's overseas warfighting accounts by \$18 billion and spend that money on programmatic items we did not request.

While I don't expect this committee to consider such a proposal, I have to say that this approach is deeply troubling and flawed for several reasons. It's gambling with warfighting money at a time of war, proposing to cut off our troops' funding in places like Afghanistan, Iraq, and Syria in the middle of the year. It would spend money on things that are not DOD's highest unfunded priorities across the joint force. It buys force structure without the money to sustain it and keep it ready, effectively creating hollow force structure and working against our efforts to restore readiness. It doesn't address the much bigger strategic risk DOD faces, of \$100 billion in looming automatic cuts. In fact, it's a step in the direction of unrattling the Bipartisan Budget Act, which provided critical stability that DOD needs now and desires for the future, and it's another road to nowhere with uncertain chances of ever becoming law, and a high probability of leading to more gridlock and another continuing resolution, exactly the kind of terrible distraction we've seen for years that undercuts stable planning and efficient use of taxpayer dollars, dispirits troops and their families, baffles friends, and emboldens foes. I cannot support such maneuvers as Secretary of Defense.

The fact is DOD's greatest strategic risk is losing the stability we got from the budget deal this year, and having uncertainty and sequester return in future years. That's why going forward, the biggest budget priority for us strategically is Congress averting the return of sequestration, to prevent that \$100 billion in automatic cuts, so we can maintain stability and sustain all these critical investments over time.

We've seen this done before, and that same support coming together is essential today to address the security challenges we face and to seize the opportunities within our grasp. As long as we work together to do so, I know our national security will be on the right path and America's military will continue to defend our country and help make a better world for generations to come.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF HON. ASH B. CARTER

PURPOSE OF THIS TESTIMONY

Chairman Cochran, Vice Chairman Durbin, Members of the Committee: Thank you for inviting me here today, and for your steadfast support for the men and women of the Department of Defense (DOD), military and civilian alike, who serve and defend our country all over the world. I'm pleased to be here with Chairman Dunford to discuss President Obama's fiscal year 2017 budget submission for the Defense Department.

At this time last year, we were all facing the bleak prospect of looming budget sequestration, and the damage its return would do to our people and our mission. I'm grateful that our country's leaders were able to come together last fall to avert that dismal future, and reach a budget deal that—after several years of fiscal turmoil and reductions—has allowed for greater investment in all our elements of national security and strength. That was what I urged since becoming Secretary of Defense, including in last year's budget testimony before this committee, and given the threat environment we face around the world, forging that deal was the responsible thing to do. It allows our military personnel and their families to know their future more than just 1 year at a time, which they deserve. It lets our defense industry partners be more efficient and cutting edge, as we need them to be. And, perhaps

most importantly, it sends a signal to the world—to friends and potential foes alike—of our Nation’s strength and resolve.

The President’s budget submission accordingly adheres to that budget deal—requesting a total of \$582.7 billion for the Defense Department in fiscal year 2017, for both the base budget and Overseas Contingency Operations (OCO) funds combined. How we plan to invest those funds, along with our planned investments for the next 5 years—as detailed in the customary Future Years Defense Program (FYDP) that’s included in the President’s budget submission—are critical to DOD’s ability to carry out our mission of national defense with the excellence the American people expect of their military, which is today the finest fighting force the world has ever known.

As you know, no one got everything they wanted in the budget deal—I said last year that we needed to rise above our differences, and I’m glad many members of Congress were able to do that—so in budgeting and programming for fiscal year 2017, we had to make responsible choices. The President’s budget submission reflects those choices, and we need your support for them. This is particularly true for prudent and necessary reforms—some of which the Congress has long denied, in spite of the cost to both DOD and to America’s taxpayers. Indeed, while DOD is grateful to this and the other defense committees for your support for the budget deal, it is also the defense committees that in recent years have been tying our hands on reform, as I will address later in this testimony.

We should remember, however, that the budget deal only covered 2 years. Unless Congress addresses the years beyond it and heads off sequestration, DOD will face \$100 billion in cuts from 2018 to 2021, which would introduce unacceptable risks. So Washington will need to come together once again—not unlike last year, and 2 years before that—to provide stability and protect our national security.

That’s important, because in this budget submission, we’re taking the long view. We have to, because even as we must fight and win today’s fights, we must also be prepared to deter and if necessary fight and win the fights that might come 10, 20, or 30 years down the road. Last fall’s budget deal set the size of our budget, and with this degree of certainty we focused on changing its shape in fundamental ways—making choices and tradeoffs to adjust to a new strategic era, and seize opportunities for the future.

#### A STRATEGIC TURNING POINT FOR THE DEFENSE DEPARTMENT

Let me now describe the strategic assessment that drove our budget decisions. First of all, it’s evident that America is still today the world’s foremost leader, partner, and underwriter of stability and security in every region across the globe, as we have been since the end of World War II. As we fulfill this enduring role, it’s also evident that we’re entering a new strategic era.

Context is important here. A few years ago, following over a decade when we were focused on large-scale counterinsurgency operations in Iraq and Afghanistan, DOD began embarking on a major strategy shift to sustain our lead in full-spectrum warfighting. While the basic elements of our resulting defense strategy remain valid, it’s also been abundantly clear to me over the last year that the world has not stood still since then—the emergence of ISIL, and the resurgence of Russia, being just the most prominent examples.

This is reflective of a broader strategic transition underway, not unlike those we’ve seen in history following major wars. Today’s security environment is dramatically different—and more diverse and complex in the scope of its challenges—than the one we’ve been engaged with for the last 25 years, and it requires new ways of thinking and new ways of acting.

Accordingly, five evolving challenges are now driving the focus of DOD’s planning and budgeting.

Two of these challenges reflect a recognition of—return to, in some ways—great power competition. This is something we haven’t seen for some time, and that requires heightened focus given its potential impact on our Nation and the world. The first such challenge is in Europe, where we’re taking a strong and balanced approach to deter Russian aggression—we haven’t had to devote a significant portion of our defense investment to this possibility for 25 years, and while I wish it were otherwise, now we do. The second is in the Asia-Pacific, where we haven’t faced great power competition since the end of World War II, and where China is rising, which is fine, but behaving aggressively, which is not. There, we’re continuing our rebalance, in terms of weight of effort, to maintain the regional stability we’ve underwritten for the past 70 years, allowing so many nations to rise and prosper in this, the single most consequential region for America’s future.

Meanwhile, two other longstanding challenges pose threats in specific regions. One is North Korea, which remains dangerous to both us and our allies—that’s why our forces on the Korean Peninsula remain ready, as they say, to “fight tonight.” The other is Iran—because while the nuclear accord is a good deal for preventing Iran from getting a nuclear weapon, and doesn’t limit DOD in any way, we must still deter Iranian aggression and counter Iran’s malign influence against our friends and allies in the region, especially Israel, to whom we maintain an unwavering and unbreakable commitment.

Challenge number five, no less important than the other four, is our ongoing fight to counter terrorism, and especially defeat ISIL—most immediately in its parent tumor in Iraq and Syria, and also where it is metastasizing, in Afghanistan, Africa, and elsewhere—at the same time as we’re protecting our homeland. While ISIL must and will be defeated now, in the longer perspective and in our budgeting we must also take into account that as destructive power of greater and greater magnitude falls into the hands of smaller and smaller groups of people, countering terrorists will be a continuing part of the future responsibilities of DOD and other national security leaders.

DOD must and will address all five of these challenges as part of its mission to defend this country. Doing so requires some new investments on our part, new posture in some regions, and also new and enhanced capabilities.

Key to our approach is being able to deter the most advanced adversaries while continuing to fight terrorist groups. This means we must have—and be seen to have—the ability to impose unacceptable costs on an advanced aggressor that will either dissuade them from taking provocative action, or make them deeply regret it if they do. To be clear, the U.S. military will be ready to fight very differently than we have in Iraq and Afghanistan, or in the rest of the world’s recent memory. We will be prepared for a high-end enemy—what we call full-spectrum. In our budget, our plans, our capabilities, and our actions, we must demonstrate to potential foes that if they start a war, we are able to win, on our terms. Because a force meant to deter conflict can only succeed in deterrence if it can show that it will dominate a conflict.

We have this ability with respect to North Korean and Iranian military forces, as well as in executing the military aspects of countering terrorists, as we’re doing now against ISIL. That won’t change, even as we know that military power alone cannot prevail without capable and motivated local forces to sustain ISIL’s defeat—nor can the United States alone deliver a lasting defeat—against the toxic ideology of terrorists like ISIL that have so little regard for the lives of fellow human beings.

In this context, Russia and China are our most stressing competitors, as they’ve both developed and are continuing to advance military systems that threaten our advantages in specific areas, and in some cases, they’re developing weapons and ways of war that seek to achieve their objectives in ways they hope would preempt a response by the United States. Because of these facts, because the implications of any great-power conflict would be so dire for the United States and the world, and because of those nations’ actions to date—from Ukraine to the South China Sea—DOD has elevated their importance in our defense planning and budgeting to ensure we maintain our advantages in the future.

While we do not desire conflict with any of these nations—and, to be clear, though they pose some similar defense challenges, they are very different nations and situations—we also cannot blind ourselves to the actions they choose to pursue. That is the responsible course of action for the Defense Department. Our military is first and foremost a warfighting force, and even as we seek to deter wars, we must also be prepared to fight and win them, which is itself a key part of deterrence.

Our military must be balanced with the proper size and capability to defeat any attack against U.S. forces and our allies. And because of the decisions in this budget, our military will be better prepared for both present and future challenges, and better positioned to deter, and if necessary fight and win, wars against even the most high-end of potential adversaries.

As this budget addresses those five evolving challenges, it also seizes great opportunities—in supporting new and innovative operational concepts; in pioneering and dominating technological frontiers, including undersea, cyber, space, electronic warfare, and other advanced capabilities; in reforming the defense enterprise; and in building the force of the future. I will address the investments we’re making to do so later in this testimony.

#### SUPPORTING THE STRENGTH AND WELLNESS OF TODAY’S FIGHTING FORCE

Before I address how this budget ensures we meet those challenges and seize those opportunities, I want to first emphasize our enduring commitment to sup-

porting the men, women, and families of the world's finest fighting force. Above all, this means exercising the utmost care in decisions involving the deployment and employment of our troops. It also requires devoting a significant share of our budget every year toward supporting the people, military and civilian alike, who execute DOD's missions around the world.

To ensure we have a force that's ready to carry out today's missions, this budget invests in the four main things that every soldier, sailor, airman, and Marine needs to do their job—the right training; the right equipment; the right force size, meaning the right number of people alongside them; and the right compensation.

#### *The Right Training*

In fiscal year 2017 and beyond, the budget makes critical investments in training throughout the force to rebuild toward full-spectrum combat readiness and continue recovering from the damage caused by sequestration in recent years—though, it's important to remember that restoring readiness requires not only sufficient funding, but also time. The budget maximizes use of the Army's decisive action Combat Training Centers, funding 19 total Army brigade-level training rotations. It provides robust funding to sustain the Navy and Marine Corps' current training levels and readiness recovery plans for fiscal year 2017—optimizing Navy training while maximizing the availability of naval forces for global operations, and fully funding the Marine Corps' integrated combined arms exercises for all elements of its Marine Air-Ground Task Forces. And, because recent operational demands like the fight against ISIL have slowed the Air Force's return to full-spectrum readiness, the budget increases funding—as part of a \$1 billion increase over the FYDP to support Air Force readiness—to modernize and expand existing Air Force training ranges and exercises here at home, providing pilots and airmen with more realistic training opportunities when they're not deployed.

#### *The Right Equipment*

The budget also makes important investments to provide our men and women in uniform with functioning, well-maintained equipment so that when we send them into the fights of today, they're able to accomplish their mission and come home safely. For example, to address the Navy and Marine Corps' growing maintenance backlog in tactical aviation, the budget funds a 15 percent increase in F-18 depot maintenance capacity, and it buys an additional 16 F/A-18 E/F Super Hornet fighter jets between now and fiscal year 2018—providing a significant boost to the health of the Navy and Marine Corps' 4th-generation fighter aircraft fleet so it's ready and capable for today's missions. To help ensure the Air Force has enough ready and capable aircraft for both combat missions and intelligence, surveillance, and reconnaissance (ISR), the budget funds improvements in the avionics and electronic warfare systems of legacy fighter and bomber aircraft, and it supports the Air Force's 'get well plan' for remotely-piloted aircraft.

The budget also makes critical investments in every domain to research, develop, test, evaluate, and procure the right technology and equipment our military will need to deter and if necessary fight and win full-spectrum conflicts in the future. I will detail those investments later in this testimony.

#### *The Right Force Size*

The flexibility provided by last fall's budget deal allowed us to maintain DOD's desired targets across the FYDP for end-strength and active-reserve mix for our ground forces—without it, sequestration likely would have forced further reductions. Therefore, the budget stabilizes our total ground force end-strength by the end of fiscal year 2018 with an Army of 450,000 active-duty soldiers, 335,000 soldiers in the Army National Guard, and 195,000 soldiers in the Army Reserve—comprising 56 total Army brigade combat teams and associated enablers—and a Marine Corps of 182,000 active-duty Marines and 38,500 Marine reservists. For the Navy, the budget continues to grow the size, and importantly the capability, of the battle fleet—providing for 380,900 active-duty and reserve sailors in fiscal year 2017, and an increase from 280 ships at the end of fiscal year 2016 to 308 ships at the end of the FYDP. The budget also supports an Air Force of 491,700 active-duty, reserve, and National Guard airmen—maintaining 55 tactical fighter squadrons over the next 5 years, and providing sufficient manpower to address high operating tempo and shortfalls in maintenance specialists for both tactical fighters and remotely-piloted aircraft.

#### *The Right Compensation*

In fiscal year 2017, the budget provides \$177.9 billion in pay and benefits—including healthcare, housing allowances, commissaries, retirement, and other benefits—for DOD's 2.1 million military personnel and their families. I will discuss DOD's

proposed reforms to some of these areas later in this testimony. To help make sure DOD is competitive for the best talent, the budget includes a department-wide pay raise of 1.6 percent in fiscal year 2017. This is an increase above fiscal year 2016's pay raise of 1.3 percent.

It's important to note that of all the cuts we've taken to our previously-planned budgets since the Budget Control Act was passed, including cuts from sequestration—altogether so far totaling at least \$800 billion over 10 years—less than 9 percent of those reductions came from military compensation proposals. This should make clear that we've worked extremely hard to protect our people, and that we do need to address some places where savings can be found, such as through modernizing and simplifying our military healthcare system, which I address later in this testimony.

#### *More Than Military Readiness*

Beyond ensuring the combat readiness of America's military, our commitment to the force of today also encompasses what we're doing to ensure the dignity of our people. We're putting a priority on preventing and eliminating sexual harassment and sexual assault in the military, investing \$246 million in fiscal year 2017 to help support survivors, reduce retaliation for reporting, and eradicate these crimes from our ranks—and soon, DOD will deliver to Congress our strategy on addressing retaliation, in particular. We're also helping provide transition support and advocating for employment opportunities for veterans, investing a total of \$109 million in fiscal year 2017 so our people can make the most of their potential and keep making a difference when they complete their service in uniform. And we're fostering greater diversity of our force, because our strength depends on being open to the widest possible pool of talent that can meet our standards—young Americans today are more diverse, open, and tolerant than past generations, and if we're going to attract the best among them to contribute to our mission, we ourselves have to be more diverse, open, and tolerant, too. It's the only way to compete in the 21st century.

That's one reason why we're opening all remaining combat positions to women, so that we have access to 100 percent of our population for every position in the all-volunteer force and every American who can meet our exacting standards has the full and equal opportunity to contribute to our mission. That said, since the declaration that opens all career fields to women is by itself not sufficient for their full integration, I've asked the military services to mitigate any concerns about combat effectiveness by incorporating my seven guiding principles—transparent standards, population size, talent management, physical demands and physiological differences, operating abroad, conduct and culture, and assessment and adjustment—into their implementation plans, which I have reviewed and approved and are now being carried out. First and foremost, this means the services will continue to apply objective standards for all career fields to ensure leaders assign tasks and career fields throughout the force based on ability, not gender. This may mean in some cases, equal opportunity may not always equate to equal participation. Integration provides equal opportunity for men and women who can perform the tasks required; it does not guarantee women will fill these roles in any specific number or at any set rate, as adherence to a merit-based system must continue to be paramount. Also, we must incorporate concrete ways to mitigate the potential for higher injury rates among women, and leverage lessons learned from Iraq and Afghanistan to address concerns regarding operating in areas where there is cultural resistance to working with women. We must address attitudes toward team performance through education and training, including making clear that sexual assault or harassment, hazing, and unprofessional behaviors are never acceptable. Our core beliefs in good order, discipline, leadership, and accountability are foundational to our success in integration. And it is absolutely critical that we embark on integration with a commitment to the monitoring, assessment, and in-stride adjustment that enables sustainable success.

Finally, it's important to remember that our commitment to the force of today is not limited to those who serve in uniform. In fiscal year 2017, it also includes \$79.3 billion to support our civilian workforce of 718,000 Americans—men and women across the country and around the world who do critical jobs like helping repair our ships and airplanes, providing logistics support, developing and acquiring weapon systems, supporting survivors of sexual assault, and helping care for our military's wounded, ill, and injured personnel. The budget includes \$7.7 billion to support our military families, because they serve too. It includes \$3.1 billion to help take care of our wounded warriors, to whom our commitment is and must remain as strong as ever. And it includes our enduring pledge to support the families of the fallen, whose loved ones made the ultimate sacrifice on behalf of our country.

## ADJUSTING TO STRATEGIC CHANGE

Another significant portion of our budget goes toward DOD's current operations all around the world, in every domain, to help defend our country, our allies, and our interests. Our budget's investments and programming decisions in this area reflect my commitment to helping the President address key national security challenges, and my priorities for how we must adjust to strategic change—in countering terrorists, whether ISIL, al-Qaeda, or others; in taking a strong and balanced approach to deter Russian aggression; in operationalizing our rebalance to the Asia-Pacific; in deterring Iranian aggression and malign influence; in standing alert on the Korean Peninsula; and in addressing threats from multiple directions in cyber, space, and electronic warfare. We don't have the luxury of choosing between these challenges; we must and will address them all, and not only be prepared across the spectrum of conflict, but also for the possibility of multiple conflicts in overlapping timeframes.

*Countering Terrorism*

It is clear that our mission of countering terrorists and other violent extremists around the world will be with us for some time. The Department of Defense has strong counterterrorism capabilities, and we continue to deploy them to protect America.

*Dealing ISIL a Lasting Defeat*

We must and will deal ISIL a lasting defeat, which is why the budget provides \$7.5 billion in fiscal year 2017 for Operation Inherent Resolve. This investment will be critical to continuing to implement and accelerate the coalition military campaign plan that the United States has developed, that our key allies support, and that focuses on three military objectives: One, destroy the ISIL parent tumor in Iraq and Syria by attacking its two power centers in Mosul, Iraq and Raqqa, Syria; these cities constitute ISIL's military, political, economic and ideological centers of gravity, which is why our plan has big arrows pointing toward both. Two, combat the emerging metastases of the ISIL tumor worldwide wherever they appear. And three, our most important mission, which is to protect the homeland.

To eliminate the parent tumor in Iraq and Syria, DOD is enabling local, motivated forces with critical support from a global coalition wielding a suite of capabilities—ranging from airstrikes, special forces, cyber tools, intelligence, equipment, mobility and logistics, training, advice and assistance. It must be local forces who deliver ISIL a lasting defeat, because only they can secure and govern the territory by building long-term trust within the populations they liberate. We can and will enable such local forces, but we cannot substitute for them. Accordingly, the budget's investment in the counter-ISIL campaign includes \$630 million for training and equipping the Iraqi Security Forces, and \$250 million for enabling Syrian anti-ISIL forces.

This is a worthy investment, as we've already started to see our investments over the last several months start to pay off. For example, it was Iraqi soldiers who took back Ramadi, reversing a loss the Iraqi army suffered last spring. Our support to them included advanced training, tactics, air support, and the portable bridges that carried the Iraqi military across the Euphrates River and into the decisive fight. Ramadi, like recent Iraqi gains in Bayji, Tikrit, and Sinjar, demonstrates that the approach we are taking is having an effect as Iraqis prepare for what will be a tough fight for Mosul. Likewise in Syria, local anti-ISIL forces we've enabled with equipment and ammunition have had successes in Tal Abyad, al-Hawl, the Tishreen Dam, and Shaddadi. It is imperative to keep building on this momentum.

As we work with our partners to destroy ISIL's parent tumor in Iraq and Syria, we must also recognize that ISIL is metastasizing in areas like North and West Africa and Afghanistan. Having taken out ISIL's leader in Libya in November, we are also now prepared to step up pressure on ISIL in Afghanistan to check their ambitions there as well.

Finally, at the same time that we accelerate our campaign, so must every one of our coalition partners—there can be no free riders. That's why in Brussels this February I convened the first-ever meeting of defense ministers from 27 other countries involved in the military coalition to defeat ISIL to follow up after I personally reached out to dozens of defense ministers to urge them to consider filling critical military and non-military needs in the campaign. And I'm gratified to report that coalition members responded to our challenge—and not only NATO allies like Canada and the Netherlands, but also Gulf nations, including Saudi Arabia and the United Arab Emirates. In sum, nearly 90 percent of the countries participating in the coalition's military campaign have either stepped up their role or committed to do so in the coming days. Their decisions to expand air operations, send more train-

ers, provide logistical support, help with reconstruction, or make other contributions will all help our coalition intensify the counter-ISIL campaign and bring about ISIL's lasting defeat.

None of this changes the fact that our counter-ISIL campaign is a hard and complex fight. We have tactical and strategic goals, but they will take time—and, as is often said, the enemy gets a vote. For our part, we will remain focused, committed, and resilient because this is a fight we can, must, and will win, as our efforts to accelerate our campaign are already producing real and promising results.

*Ensuring Long-Term Stability in Afghanistan*

After more than a decade of war in Afghanistan, we have to make sure our gains there stick, which is why the budget continues to support our two missions in Afghanistan—countering terrorism, and training, advising, and assisting the Afghan National Defense and Security Forces (ANDSF). In support of those two missions, the President announced last fall that the United States will maintain a continued presence of 9,800 troops through most of 2016 before drawing down to 5,500 troops by January 2017. As I told our troops there when I visited them this past December, while Afghanistan remains a dynamic fight, we are determined to ensure that terrorists—regardless of whether they're al-Qaeda or ISIL—never have or find safe haven there again.

The budget provides \$41.7 billion in fiscal year 2017 for Operation Freedom's Sentinel—including funding to support our posture in U.S. Central Command, the full funding of \$3.4 billion to support the ANDSF, and \$1.4 billion to support other coalition partners. Importantly, this allows us to continue strengthening and developing the ANDSF's aviation, logistics, intelligence, and special operations capabilities, with the intent of reducing their dependency on us over time. Also, in addition to upholding our commitments to Afghanistan, the Afghan people, and other partners, the budget reflects that the United States will retain several key locations in 2016 and beyond, including facilities in Kabul, Bagram, Jalalabad, and Kandahar. As we do so, the United States will support the continuation of the NATO mission in Afghanistan in 2016 and beyond, and continue to consult with our NATO allies and partners to ensure that the U.S. and NATO missions in Afghanistan are mutually supportive.

Our continued presence in Afghanistan is not only a sensible investment to counter threats that exist and stay ahead of those that could emerge in this volatile region; it also supports the willing partner we have in the government of Afghanistan. It is in the United States' interest to help them succeed, for the benefit of their security, our security, the region and the world.

*Establishing an Alternative to the Detention Facility at Guantanamo*

The Defense Department is resolutely committed to responsibly closing the detention facility at Guantanamo Bay through the establishment of an alternative detention facility. I share the President's belief—and the belief of many in Congress—that doing so would benefit our national security, which is why DOD will continue to transfer Guantanamo detainees to other countries when we have substantially mitigated any security risks to the United States.

Over the last 5 months, we completed transfers for 27 detainees, bringing the population to 80. Like every transfer that came before them, the decision to transfer these detainees happened only after a thorough review by me and other senior security officials of our government.

That said, because many of the remaining detainees currently cannot be safely transferred to another country, we need an alternative to this detention facility. Therefore, I support the President's plan to establish and bring those detainees to an appropriate, secure, alternative location in the United States. I appreciate that Congress has indicated a willingness to consider such a proposal, and, in accordance with the 2016 National Defense Authorization Act, DOD delivered that plan to Congress in February. We look forward to working with Congress to identify the most appropriate design, legislative foundation, and geographic location for future detention and to lift the restrictions preventing the responsible closure of the facility at Guantanamo.

*Supporting and Maintaining our Counterterrorism Capabilities*

In addition to the specific funds outlined above, the budget also reflects other investments we're making in DOD's posture to ensure we can counter terrorism effectively wherever it challenges us. For example, the budget sustains our robust funding for U.S. Special Operations Command, allocating \$10.8 billion in fiscal year 2017. To bolster our partners in fighting terrorism, it requests \$1 billion for our Counterterrorism Partnerships Fund. And it supports the development of DOD's transregional counterterrorism strategy, which I'd like to outline now.

The terrorist threat is continually evolving, changing focus, and shifting location, requiring us to be flexible, nimble, and far-reaching in our response. Accordingly, the Defense Department is leveraging the existing security infrastructure we've already established in Afghanistan, the Middle East, East Africa, and Southern Europe, so that we can counter transnational and transregional terrorist threats like ISIL and others in a sustainable, durable way going forward. From the troops I visited in Morón, Spain last October to those I visited in Jalalabad, Afghanistan last December, these locations and associated forces in various regions help keep us postured to respond to a range of crises, terrorist and other kinds. In a practical sense, they enable our crisis response operations, counter-terror operations, and strikes on high-value targets, and they help us act decisively to prevent terrorist group affiliates from becoming as great of a threat as the main entities themselves. This transregional approach is already giving us the opportunity and capability to react swiftly to incidents and threats wherever they occur, and it maximizes our opportunities to eliminate targets and leadership. An example of this in action was our November strike on Abu Nabil, ISIL's leader in Libya, where assets from several locations converged to successfully kill him. To help implement this strategy, including in the fight against ISIL and its metastasis beyond Iraq and Syria, the budget includes an additional \$175 million in fiscal year 2017—\$9 million to help bolster our posture in the Levant, and \$166 million to help us better address threats in North and West Africa in conjunction with our European partners.

Because the accelerating intensity of our precision air campaign against ISIL in Iraq and Syria has been depleting our stocks of some of the GPS-guided smart bombs and laser-guided rockets we use against terrorists the most, the budget invests \$1.8 billion in fiscal year 2017 to buy over 45,000 more of them. Furthermore, DOD is also exploring increasing the production rate of these munitions in our industrial base—calling on America's great arsenal of democracy to help us and our partners finish the job of defeating ISIL.

Also, because our remotely-piloted intelligence, surveillance, and reconnaissance (ISR) aircraft play an important role in countering terrorism, the budget includes \$1.2 billion for fiscal year 2017 and \$4.5 billion over the FYDP to increase the number of around-the-clock permissive ISR combat air patrols from 70 today to 90 by the end of fiscal year 2018. Using a mix of MQ-9 Reapers, Extended Range Reapers, and MQ-1C Advanced Gray Eagles—and comprising 60 patrols from the Air Force, 16 from the Army, and 14 that are government-owned and flown by contractors for the Air Force and U.S. Special Operations Command—these investments will be critical as the need for ISR continues to increase around the world.

Finally, because it helps us maintain a larger Air Force fighter fleet that can drop more smart bombs in our counter-ISIL air campaign, the budget also further defers the A-10 Thunderbolt's final retirement until 2022. I saw some of the A-10s that are flying bombing missions against ISIL when I was at Incirlik Air Base in Turkey last December, and we need the additional payload capacity they can bring to the fight. Accordingly, we are also changing the rate at which we will phase out the A-10 as we approach 2022, as I will explain later in this testimony.

#### *A Strong and Balanced Strategic Approach to Deter Russia*

Despite the progress we've made together since the end of the Cold War, Russia has in recent years appeared intent to erode the principled international order that has served us, our friends and allies, the international community, and also Russia itself so well for so long. In Europe, Russia continues to violate the sovereignty of Ukraine, Georgia, and Moldova, and actively seeks to intimidate its Baltic neighbors. In Syria, Russia has been pouring gasoline on a civil war, fueling the very extremism Russia claims to oppose. At sea, in the air, in space, and in cyberspace, Russian actors have engaged in challenging international norms. And most disturbing, Moscow's nuclear saber-rattling raises questions about Russia's leaders' commitment to strategic stability, their respect for norms against the use of nuclear weapons, and whether they respect the profound caution that nuclear-age leaders showed with regard to brandishing nuclear weapons.

To be clear, the United States does not seek a cold, let alone hot war with Russia. We do not seek to make Russia an enemy, even as it may view us that way. But make no mistake—we will defend our interests, our allies, the principled international order, and the positive future it affords us all. That's why the United States is taking a strong and balanced strategic approach in response to Russia's aggression: strengthening both our allies and ourselves, including through investments in this budget, while also giving Russia the opportunity, if it chooses, to rejoin the international community and work with us where our interests align.

Since Russia began its illegal attempted annexation of Crimea a little over 2 years ago, DOD's budgets have made valuable investments in reinforcing our NATO allies;

for example, contributing to NATO's Very High Readiness Joint Task Force, and stepping up our training and exercises under Operation Atlantic Resolve. This budget builds on that significantly, and breaks new ground by re-envisioning and recommitting to deterring—and, if deterrence fails, defeating—any aggression against our allies in the future. The 20th century NATO playbook was successful in working toward a Europe whole, free and at peace, but the same playbook would not be well-matched to the needs of the 21st century. Together with our NATO allies, we must write a new playbook, which includes preparing to counter new challenges like cyber and hybrid warfare, better integrating conventional and nuclear deterrence, as well as adjusting our posture and presence to adapt and respond to new challenges and new threats.

To further reinforce our NATO allies and build our deterrence posture in the face of Russia's aggression, this budget significantly increases funding for our European Reassurance Initiative to make a total investment of \$3.4 billion for fiscal year 2017—more than quadrupling the \$789 million that we requested last year—allowing us to increase the amount of prepositioned equipment sets in Europe as well as the number of U.S. forces, including Reserve forces, rotating through Europe to engage with friends and allies. This increase supports the persistent rotational presence of an armored brigade combat team for 12 months out of the year, which will give us a total of three brigade combat teams continuously present in Europe. It supports more training and exercises with our European friends and allies. It supports more warfighting gear, including forward-stationing equipment for an additional armored brigade combat team by the end of 2017. It supports prepositioning equipment for a division headquarters and other enablers in Europe, such that this equipment—along with assigned Army airborne and Stryker brigade combat teams and Marine Corps heavy vehicles and equipment already in Europe—will allow us to rapidly form a highly-capable combined-arms ground force of division-plus strength that can respond theater-wide if necessary. And it helps strengthen our regional air superiority posture—among other things, allowing us to keep an additional F-15C tactical fighter squadron based in Europe, and also improve airfield infrastructure to enhance operations for Air Force fighters and Navy maritime patrol aircraft.

In addition, the budget reflects how we're doing more, and in more ways, with specific NATO allies. Given increased Russian submarine activity in the North Atlantic, this includes building toward a continuous arc of highly-capable maritime patrol aircraft operating over the Greenland-Iceland-United Kingdom gap up to Norway's North Cape. It also includes the delivery of Europe's first stealthy F-35 Joint Strike Fighters to our British allies. And, given Russia's use of hybrid warfare—exemplified by the so-called 'little green men' in Ukraine—the budget supports more rotational presence of U.S. special operations forces exercising in Europe.

The budget also significantly funds important new technologies that, when coupled with revised operational concepts, will ensure we can deter and if necessary win a high-end conventional fight in an anti-access, area-denial environment across all domains and warfighting areas—air, land, sea, space, cyberspace, and the electromagnetic spectrum. While I will address these areas in greater detail later in this posture statement, investments that are most relevant to deterring Russia include new unmanned systems, enhanced ground-based air and missile defenses, new long-range anti-ship weapons, the long-range strike bomber, and also innovation in technologies like the electromagnetic railgun, lasers, and new systems for electronic warfare, space, and cyberspace. The budget also invests in modernizing our nuclear deterrent.

Consistent with our strong and balanced approach, the door will remain open for Russia to reassume the role of respected partner going forward. While that would be greatly welcomed by the United States, and the Department of Defense, it's up to the Kremlin to decide—first by demonstrating a willingness to return to the international community.

#### *Operationalizing the Rebalance to the Asia-Pacific*

The budget also supports operationalizing our rebalance to the Asia-Pacific region. In a region home to nearly half the world's population and nearly half the global economy, for 70 years the United States has helped underwrite a stable security environment that allowed the people, economies, and countries in the Asia-Pacific to rise and prosper. We fully intend to continue these efforts so that bright future can be possible for everyone in this important region.

Accordingly, the budget helps improve DOD's geographically distributed, operationally resilient, and politically sustainable posture in the region, through which the United States seeks to preserve peace and stability, and maintain our strategic advantage in an area that's critically important to America's political, economic, and

security interests. Investments in the budget reflect how we're moving more of our forces to the region—such as 60 percent of our Navy and overseas Air Force assets—and also some of our most advanced capabilities in and around the region, from F-22 stealth fighter jets and other advanced tactical strike aircraft, to P-8A Poseidon maritime surveillance aircraft, to our newest surface warfare ships. They also reflect how we're developing and implementing new posture initiatives—in places like Guam, the Northern Marianas, the Philippines, Australia, and Singapore, as well as modernizing our existing footprint in Korea and Japan—and continuing to strengthen existing partnerships and develop new ones, from India to Vietnam. And they reflect our efforts to support and strengthen a regional security architecture that benefits everyone—from strengthening and modernizing our alliances, to bolstering our ties with the Association of Southeast Asian Nations (ASEAN), to building the security capabilities of our many friends and allies, who increasingly want to do more with us in the region. In support of this effort, the budget fully supports our 5-year, \$425 million Southeast Asia Maritime Security Initiative begun in fiscal year 2016.

For this region, as it does with Europe, the budget also significantly funds important new technologies to ensure we can deter and if necessary win a high-end conventional fight in an anti-access, area-denial environment across all domains and warfighting areas—air, land, sea, space, cyberspace, and the electromagnetic spectrum. These investments—which I will outline later in this testimony—are important for ensuring our forces can go anywhere, at any time, and succeed in whatever mission we ask of them.

It's important to remember that America's rebalance has never aimed to hold any nation back or push any country down. The United States wants every nation to have an opportunity to rise, because it's good for the region and good for our collective interests. That includes China. As we welcome the growth and prosperity of all Asia-Pacific nations, it is clear that the U.S.-China relationship will be complex as we continue to balance our competition and cooperation. There are opportunities to improve understanding and to reduce risk with China—for example, we've agreed to four confidence-building agreements, including one meant to prevent dangerous air-to-air encounters. But there remain areas of concern.

For one, the United States joins virtually everyone else in the region in being deeply concerned about the pace and scope of land reclamation in the South China Sea, the prospect of further militarization, as well as the potential for these activities to increase the risk of miscalculation or conflict among claimant states. U.S. military presence in the region is decades-old, has been instrumental in upholding the rules-based international system, and has laid the foundation for peace and security in the region. Our interest is in maintaining freedom of navigation and overflight, full and unimpeded lawful commerce, and that disputes are resolved peacefully. To accomplish this, we will continue to fly, sail, and operate wherever international law allows. We also expect China to uphold President Xi's pledge not to pursue militarization in the Spratly Islands of the South China Sea.

Also, we are closely watching the long-term, comprehensive military modernization program that China, as well as other countries, continues to pursue. While there is no question that the United States retains a decisive military edge in the Asia-Pacific today, China is investing in capabilities to counter third-party—including the United States—intervention during a crisis or conflict. These capabilities include ballistic and cruise missiles of increasingly greater range and accuracy, counter-space and offensive cyber capabilities, and electronic warfare systems. To maintain a lasting competitive advantage, DOD is taking prudent steps to preserve and enhance deterrence for the long term. The budget reflects this, including with investments to continue adapting our forces, posture, operations, and capabilities to deter aggression, defend our allies, and sustain our military edge in the Asia-Pacific.

#### *Deterring North Korea*

The budget also supports investments necessary to deter North Korean provocation and aggression, ensure our forces on the Korean Peninsula remain ready and capable to 'fight tonight' if necessary, and defend against threats emanating from North Korea against the United States and our allies. This includes threats posed by North Korea's nuclear and missile

programs, against which DOD is fully capable of defending the U.S. homeland. Our position has been, and remains, that North Korea must abide by its international obligation to abandon its nuclear and missile programs and stop its provocative behavior.

North Korea's nuclear test on January 6th and its ballistic missile launch on February 7th were highly provocative acts that undermine peace and stability on the Korean Peninsula and in the region. The United States condemns these violations

of U.N. Security Council resolutions and again calls on North Korea to abide by its international obligations and commitments. We are monitoring and continuing to assess the situation in close coordination with our regional partners.

DOD remains fully capable of fulfilling U.S. treaty commitments to our allies in the event of a North Korean attack, and we're working with our Republic of Korea allies to develop a comprehensive set of alliance capabilities to counter the growing North Korean ballistic missile threat. I spoke with my South Korean counterpart shortly after the nuclear test, and reiterated our commitments as strong and steadfast allies. Also, a few hours after the ballistic missile launch, the United States and the Republic of Korea jointly announced the start of formal consultations to discuss the feasibility of deploying a Terminal High-Altitude Area Defense (THAAD) system to the Korean Peninsula at the earliest date.

*Checking Iran's Malign Influence while Strengthening Regional Friends and Allies*

The Middle East presents a kaleidoscope of challenges, but there, as everywhere, DOD's budget—and accordingly our actions and strong military posture—is guided by our North Star of what's in America's interests. Defeating ISIL in Iraq and Syria, which I discussed earlier, is of course one of those interests, but amid this region's complexity and uncertainty, we also have other interests of great importance, which are to deter aggression; to bolster the security of our friends and allies, especially Israel; to ensure freedom of navigation in the Gulf; and to check Iran's malign influence even as we monitor the implementation of the Joint Comprehensive Plan of Action. That's why DOD maintains tens of thousands of American personnel ashore and afloat in the region, along with our most sophisticated ground, maritime, and air and ballistic missile defense assets.

While the Joint Comprehensive Plan of Action places significant limitations on Iran that will effectively cut off its pathways to the fissile material for a nuclear bomb, it does not limit in any way what DOD can and will do to pursue our defense strategy in the region. It places no limits on our forces, our partnerships and alliances, our intensive and ongoing security cooperation, or on our development and fielding of new military capabilities—capabilities we will continue to advance in order to provide all options, as the President has directed, should Iran walk away from its commitments under this deal. So if Iran were to commit aggression, our robust force posture ensures we can immediately respond and rapidly surge an overwhelming array of forces into the region, leveraging our most advanced capabilities married with sophisticated munitions that put no target out of reach.

This budget invests in maintaining those abilities going forward, which is important, because Iran and its proxies will still present security challenges. Iran supports Assad in Syria, backs Hezbollah in Lebanon, and is contributing to disorder in Yemen, while still directing hostility and violence to our closest ally in the region, Israel. To continue to meet our commitments and enhance our cooperation with our friends and allies in the region, especially Israel, the budget makes critical investments—including \$146 million to support Israel in fiscal year 2017. This reflects our unshakable commitment to Israel and its security, with funding for Iron Dome, David's Sling, Arrow, and other cooperative defense programs—not only ensuring that Israel can defend itself, but also preserving and enhancing Israel's qualitative military edge, which is a cornerstone of our defense relationship.

Meanwhile, with critical investments in other areas, the budget enables DOD to continue to advance our preparations, posture, partnerships, and planning to preserve the President's options for any contingency. It strengthens the regional security architecture in a way that blunts Iran's ability to coerce its neighbors. And it helps us stay ahead of the risks posed by Iran's ballistic missiles, naval forces, cyber capabilities, and support for terrorists and others in the region.

*Addressing Threats in Cyber, Space, and Electronic Warfare*

Even as we make adjustments in our budget to address the five evolving challenges posed by Russia, China, Iran, North Korea, and terrorist groups like ISIL and al-Qaeda, we are also making adjustments to address emerging and increasing threats that transcend individual nations and organizations. That's because, as we confront these five challenges, we know we'll have to deal with them across all domains—and not just the usual air, land, and sea, but also particularly in the areas of cyber, space, and electronic warfare, where our reliance on technology has given us great strengths, but also led to vulnerabilities that potential adversaries are eager to exploit.

As I made clear when I released DOD's new cyber strategy last April, we have three missions in cyberspace—first and foremost, to defend our networks, systems, and information; second, to help defend the Nation and our interests from cyberattacks of significant consequence, working with other departments and

branches of government; and third, to provide options that can augment our other military systems. Given the increasing severity and sophistication of the threats and challenges we're seeing in cyberspace—ranging from ISIL's pervasive online presence to the data breaches at the Office of Personnel Management—the budget puts a priority on funding our cyber strategy, investing a total of \$6.7 billion in fiscal year 2017 and \$34.6 billion over the FYDP. This is a \$900 million increase over last year's budget. While these funds will help us continue to develop, train, and equip our growing Cyber Mission Force, and also make new technological investments to strengthen our cyber defenses and capabilities—both of which I address later in this testimony—the budget also reflects our efforts to make a fundamental shift toward a culture of accountability in cyberspace, from instituting a DOD-wide cybersecurity scorecard to monitor our progress to increasing individual knowledge about practical ways to defend against cyber intrusions. Our people understandably hold themselves to very high standards when it comes to caring for, attending to, using, and being accountable for the weapons they carry into battle, and we must do the same when it comes to interacting with our networks and cyber capabilities—not only among our cyber warriors and IT professionals, but throughout the DOD workforce.

While at times in the past space was seen as a sanctuary, new and emerging threats make clear that's not the case anymore, and we must be prepared for the possibility of a conflict that extends into space. This means that as we continue to ensure our access to space so we can provide capabilities like reconnaissance, GPS, and secure communications that enable and enhance our operations in other domains, we must also focus on assuring and defending these capabilities against aggressive and comprehensive counter-space programs of others. Though competitors may understand our reliance on space, we will not let them use it against us, or take it away. As I will discuss later in this testimony, this budget makes important investments to do just that—sustaining and building on the major shifts DOD began funding in last year's budget submission—with a total of more than \$22 billion for space in fiscal year 2017. With the presence of so many commercial space endeavors, we want this domain to be just like the oceans and the Internet: free and open to all.

Finally, high-end competitors have also invested in electronic warfare systems as a cost-effective way to challenge the United States and try to blunt our technological advantage. By jamming our radars, communications, and GPS, these systems would seek to disrupt the integrated capabilities that allow our forces to identify, target, reach, and destroy an enemy with precision. We cannot allow that to happen, which is why this budget deliberately invests in buying more electronic protection and resiliency for our current systems as well as developing more advanced capabilities. I will address these investments in more detail later in this testimony.

#### SEIZING OPPORTUNITIES FOR THE FUTURE

The other significant share of our budget goes toward making sure DOD will be ready for the future. Our budget's investments and programming decisions in this area reflect my commitment to create a Defense Department that's open to change and new ideas to ensure a better future for both DOD and the Nation, and my priorities in doing so. These are best understood through the four key pillars of this commitment—namely, updating and refining warfighting strategies, operational concepts, and tactics; driving smart and essential technological innovation; building the force of the future; and reforming the DOD enterprise.

While I will describe what we're doing in each of those areas momentarily, the dynamic strategic environment I described earlier in this testimony explains why such change is so important—not for the sake of change, but for the security of this country. We cannot let those challenges overtake us; we have to stay ahead of them and stay the best. That's why as Secretary of Defense I've been pushing the Pentagon to think outside our five-sided box.

#### *Updating and Refining Warfighting Strategies, Operational Concepts, and Tactics*

Because our military has to have the agility and ability to win both the fights we're in, the wars that could happen today, and the wars that could happen in the future, we're always updating our plans and developing new operational approaches to account for any changes in potential adversary threats and capabilities, and to make sure that the plans apply innovation to our operational approaches—including ways to overcome emerging threats to our security, such as cyberattacks, anti-satellite weapons, and anti-access, area denial systems. We're building in modularity that gives our chain of command's most senior decision-makers a greater variety of choices. We're making sure planners think about what happens if they have to execute their plan at the same time as another contingency is taking place, so they don't fall into the trap of presuming the contingency they're planning for would be

the only thing we'd be doing in the world at that time. And we're injecting agility and flexibility into our processes, because the world, its challenges, and our potential opponents are not monolithic, and we must be just as dynamic to stay ahead of them.

As I mentioned earlier, DOD is continuing to embark on a force-wide, all-service transition from an era focused on counterinsurgency operations to an era focused on the full spectrum of military operations. While we do so for many important reasons, it's also important to note that we don't want to forget or turn our back on counterinsurgency, but rather enable most of our forces to be capable of doing a lot more than just that. A smaller segment of our force will still specialize in these skills, and DOD will retain the ability to expand our operational capacity for counterinsurgency missions should it become necessary.

The transition to full-spectrum operations is and will be coupled with demonstrations to clearly signal it and make that signal credible, which is key to conventional deterrence. The same is true for our investments in capabilities—in new technologies, new operational concepts, and also innovative ways for how we use what we already have—these must and will be demonstrated as well. This is accounted for in the budget, as are other investments we're making to recommit ourselves to deterrence across the strategic, operational, and tactical levels of conflict.

Recognizing the immense value that wargaming has historically had in strengthening our force in times of strategic, operational, and technological transition—such as during the interwar years between World War I and World War II, when air, land, and naval wargamers developed innovative approaches in areas like tank warfare and carrier aviation—this budget makes significant new investments to reinvigorate and expand wargaming efforts across the Defense Department. With a total of \$55 million in fiscal year 2017 as part of \$526 million over the FYDP, this will allow us to try out nascent operational concepts and test new capabilities that may create operational dilemmas and impose unexpected costs on potential adversaries. The results of future wargames will be integrated into DOD's new wargaming repository, which was recently established to help our planners and leaders better understand and shape how we use wargames while also allowing us to share the insights we gain across the defense enterprise.

#### *Driving Smart and Essential Technological Innovation*

The investments this budget makes in technology and innovation, and the bridges it helps build and rebuild, are critical to staying ahead of future threats in a changing world. When I began my career, most technology of consequence originated in America, and much of that was sponsored by the government, especially DOD. Today, not only is much more technology commercial, but the competition is global, with other countries trying to catch up with the advances we've enjoyed for decades in areas like precision-guided munitions, stealth, cyber, and space. So now, as we have in the past, DOD must invest to ensure America pioneers and dominates these and other technological frontiers.

DOD is therefore pursuing new technology development along with new operational concepts, and new organizational constructs—all of which are reflected in or supported by this budget submission—to maintain our military's technological superiority and ensure we always have an operational advantage over any potential adversary. How we do this is important, because while the Cold War arms race was characterized mostly by strength, with the leader simply having more, bigger, or better weapons, this era of technological competition is uniquely characterized by an additional variable of speed, such that leading the race now depends on who can out-innovate faster than everyone else. It's no longer just a matter of what we buy; what also matters is how we buy things, how quickly we buy them, whom we buy them from, and how quickly and creatively we're able to upgrade them and repurpose them to be used in different and innovative ways to stay ahead of future threats.

In particular, this means leveraging the capability of current and emerging technologies, including commercial technologies wherever appropriate. It means demonstrating and seeding investments in new capabilities and concepts to counter advanced anti-access, area-denial challenges across all domains and in every region where they persist—a particular focus of DOD's effort to develop a third offset strategy. And also, it means investing in and operationalizing our security by leveraging advances in cyber, space, electronic warfare, biotechnology, artificial intelligence, and other areas. Our technologies and capabilities must be able to operate so that no matter what any of our enemies might throw at them, they are able to defeat attempts to be hacked.

Accordingly, this budget invests a total of \$183.9 billion in fiscal year 2017, and \$951 billion over the FYDP, to help research, develop, test, evaluate, and procure

the right technology and capabilities our military will need to deter and if necessary fight and win full-spectrum conflicts in the future. For the second year in a row, the budget increases funding for our research and development accounts, which total \$71.8 billion in fiscal year 2017. That includes \$12.5 billion specifically invested in science and technology to support groundbreaking work happening in the military services, in our dozens of DOD labs and engineering centers across the country, and in the Defense Advanced Research Projects Agency (DARPA) to develop and advance disruptive technologies and capabilities in areas like undersea systems, hypersonics, electronic warfare, big data analytics, advanced materials, energy and propulsion, robotics, autonomy, and advanced sensing and computing.

At the same time that DOD is making investments in technologies themselves, we're also investing in building and rebuilding bridges with America's vibrant, innovative technology community and forging more connections with the commercial technology base—and it's reflected in our budget. In fiscal year 2017, this includes \$45 million for our Defense Innovation Unit-Experimental (DIUx), which we opened in Silicon Valley last August to build relationships and better tap into the region's innovation ecosystem. It also includes \$40 million for our pilot program with the independent, non-profit startup backer In-Q-Tel, leveraging its venture capital model to help find innovative solutions for some of our most challenging problems. And it includes \$137 million to support our public-private partnership-funded Manufacturing Innovation Institutes, including the one focused on flexible hybrid electronics that I announced in Silicon Valley last August. In all these areas, similar to how DOD's historic investments in things like GPS and the Internet later went on to yield great benefits for not just our security but also our society, we hope the investments we're making in some of these fields along with our partners in the technology industry will lead to incredible advances that today we can only imagine.

Importantly, technological innovation must be done in concert with operational innovation. It's not enough to have or create new technologies or weapon systems; how they are used is key. The budget reflects work DOD has been undertaking in this area through multiple lines of effort. First, there's our Long-Range Research and Development Planning Program—an effort named after the mid-1970s project that brought together a cross-section of military, academic, and private-sector experts who paved the way to a future of GPS-guided smart bombs, battle networks, and stealth—and also our Advanced Capability and Deterrence Panel. Both focus on identifying and charting longer-term, leap-ahead investments for strategies and capabilities that will give us an advantage several decades from now, and together they make up nearly 60 percent of our science and technology investments in this budget submission.

Now, to focus on maintaining our near-term advantage, DOD has an office that we don't often talk about, but that I want to highlight today. It's called the Strategic Capabilities Office (SCO). I created SCO in 2012 when I was Deputy Secretary of Defense to reimagine existing DOD, intelligence community, and commercial systems by giving them new roles and game-changing capabilities to confound potential opponents. I picked a talented physicist to lead it. SCO is incredibly innovative, but also has the rare virtue of rapid development and the even rarer charter to keep current capabilities viable for as long as possible. So it's good for both troops and taxpayers alike.

SCO is focused on thinking differently, which is incredibly important to innovation when it comes to technological capabilities. Thinking differently put us in space and on the moon. It put computers in our pockets and information at our fingertips. It's how we came to have airplanes that take off from the decks of ships, nuclear submarines beneath the seas, and satellite networks that take pictures of the world and show us where we are in it. And this kind of bold, innovative thinking isn't lost to history. It's happening every day, in SCO and many other places throughout the Department of Defense.

Most people don't often hear about it because most of its work is classified; however, SCO has been a tremendously useful part of DOD. It's received large support from all the services, as well as our combatant commands, the Joint Chiefs of Staff, the intelligence community, and also Congress—with its budget growing from \$140 million in its first year, fiscal year 2014, to reaching \$845 million for fiscal year 2017 in this year's budget submission. To show the return we're getting on those investments, I'd like to highlight some projects SCO has been working on that we're funding in the budget.

First is a project focused on advanced navigation, where SCO is taking the same kinds of micro-cameras and sensors that are littered throughout our smartphones today, and putting them on our Small Diameter Bombs to augment their targeting capabilities. This will eventually be a modular kit that will work with many other

payloads—enabling off-network targeting through commercial components that are small enough to hold in your hand.

Another SCO project uses swarming, autonomous vehicles in all sorts of ways, and in multiple domains. For the air, they've developed micro-drones that are really fast, and really resilient—they can fly through heavy winds and be kicked out the back of a fighter jet moving at Mach 0.9, like they did during an operational exercise in Alaska last year, or they can be thrown into the air by a soldier in the middle of the Iraqi desert. And for the water, they've developed self-driving boats, which can network together to do all sorts of missions, from fleet defense to close-in surveillance—including around an island, real or artificial, without putting our sailors at risk. Each one leverages the wider world of technology. For example, the micro-drones use a lot of commercial components and 3D printing. And the boats build on some of the same artificial intelligence algorithms that NASA's Jet Propulsion Laboratory wrote for the Mars lander.

SCO also has a project on gun-based missile defense, where we're taking the same hypervelocity smart projectile developed for the electromagnetic railgun, and using it for point defense by firing it with artillery we already have in our inventory—including the five-inch guns at the front of every Navy destroyer, and also the hundreds of Army Paladin self-propelled howitzers. This way, instead of spending more money on more expensive interceptors, we can turn past offense into future defense—defeating incoming missile raids at much lower cost per round, and thereby imposing higher costs on the attacker. In fact, we tested the first shots of the hypervelocity projectile out of a Paladin earlier this year, and we found that it also significantly increases the range.

There's also a SCO project that we're calling the arsenal plane, which takes one of our oldest aircraft platforms, and turns it into a flying launch pad for all sorts of different conventional payloads. In practice, the arsenal plane will function as a very large airborne magazine, networked to fifth-generation aircraft that act as forward sensor and targeting nodes—essentially combining different systems already in our inventory to create wholly new capabilities.

The last SCO project I want to highlight is how we're creating a brand new capability with the SM-6 missile, an interceptor that's designed to launch from our Navy's surface ships and be highly maneuverable and aerodynamic to stop incoming ballistic and cruise missiles in the atmosphere. It's one of our most modern and capable munitions—and thanks to work done by SCO, we've been able to modify the SM-6 so that in addition to missile defense, it can also target enemy ships at sea. This new anti-ship mode makes the SM-6 doubly useful, taking the defensive speed and maneuverability already sitting in our Aegis destroyers' launch cells and leveraging it for offensive surface warfare lethality. That makes it a potent new capability for our fleet, and also a good deal for the taxpayer by using the same thing twice. We already know this works; it was fully tested this past January to great success. And, as I will address later in this testimony, this new operational concept is strongly reflected in our 2017 budget.

Those are just a few projects that SCO has worked on so far—and they're working on a lot more, including some surprising ones.

Now, with all of that in mind—from why we need to invest in technological innovation, to how we're doing it—let me address the specific investments this budget makes in technologies and capabilities to deter, and if necessary fight and win, a full-spectrum conventional war against even the most high-end of adversaries. In concert, they will help maintain our military's edge both under and on the sea, on land, in the air, in space, in cyber and electronic warfare, and in the modernization and maintenance of our nuclear enterprise.

#### *Maritime Investments*

In the maritime domain, the budget refocuses our Navy on building lethality for high-end conflicts while continuing to grow the battle fleet to meet, but not exceed, the department's warfighting posture requirement of 308 ships. Our investments reflect an emphasis on payloads over platforms, on the ability to strike from sanctuary quickly so that no target is out of reach, and on closing capability shortfalls that have developed over the last several years.

First, the budget maximizes our undersea advantage—leveraging and growing our commanding lead in an area where the U.S. military should be doing more, not less, going forward. It provides funding for important payloads and munitions, including \$170.8 million in fiscal year 2017 and \$1.5 billion over the FYDP for an improved heavyweight torpedo as well as research and development for an advanced light-weight torpedo to stay ahead of existing and emerging undersea challenges. It includes \$5.2 billion in fiscal year 2017 and \$29.4 billion over the FYDP to buy nine Virginia-class attack submarines over the next 5 years; four of those submarines—

up from three in last year's budget—will be equipped with the versatile Virginia Payload Module that can more than triple each submarine's strike capacity from 12 Tomahawk land attack missiles to 40. The budget also invests \$500 million in fiscal year 2017, and \$3.4 billion over the FYDP, to upgrade 49 of our submarines' combat systems and enhance underwater acoustics on nine of our existing Virginia-class submarines. It increases funding for unmanned undersea vehicles (UUVs) by over \$100 million in fiscal year 2017, part of a total \$173 million in fiscal year 2017 and \$1.2 billion over the FYDP that invests in, among other areas, rapid prototyping of UUVs in multiple sizes and diverse payloads—which is important, since UUVs can operate in shallow waters where manned submarines cannot. And it includes \$2.2 billion in fiscal year 2017 and \$6.4 billion over the FYDP to continue procuring the advanced P-8A Poseidon maritime patrol and surveillance aircraft. Together, all these investments—totaling \$8.2 billion in fiscal year 2017, and \$41.9 billion over the next 5 years—will ensure we continue to have the most lethal undersea and anti-submarine force in the world.

Second, the budget makes significant investments to bolster the lethality of our surface fleet forces, so they can deter and if necessary prevail in a full-spectrum conflict against even the most advanced adversaries. It invests \$597 million in fiscal year 2017, and \$2.9 billion over the FYDP, to maximize production of the SM-6 missile, one of our most modern and capable munitions, procuring 125 in fiscal year 2017 and 625 over the next 5 years—and this investment is doubly important given the SM-6's new anti-ship capability. It also invests in developing and acquiring several other key munitions and payloads—including \$1 billion in fiscal year 2017, and \$5.8 billion over the FYDP, for all variants of the SM-3 high-altitude ballistic missile interceptor; \$340 million in fiscal year 2017, and \$925 million over the FYDP, for the Long-Range Anti-Ship Missile; \$221 million in fiscal year 2017, and \$1.4 billion over the FYDP, for the Advanced Anti-Radiation Guided Missile, including its extended range version; and \$435 million in fiscal year 2017, as part of \$2.1 billion over the FYDP, for the most advanced variant of the Tactical Tomahawk land-attack missile, which once upgraded can also be used for maritime strike.

Third, the budget reflects decisions we've made to ensure that we look at our overall warfighting posture, rather than only the presence that contributes to it, in determining whether our maritime forces can deter and if necessary fight and win a full-spectrum conflict. Having grown the size and the capability of our surface and subsurface fleet over the last 7 years, this budget will continue to do both. It will ensure we meet the department's 308-ship posture requirement—indeed, growing the battle fleet to 308 ships by the end of the FYDP—and it will make our naval forces as a whole more capable, more survivable, and more lethal than they would have been otherwise.

The budget invests \$3.4 billion in fiscal year 2017 and \$18.3 billion over the FYDP to continue to buy two DDG-51 Arleigh Burke-class guided missile destroyers each year over the next 5 years—a total of 10 over the FYDP—as well as \$400 million in fiscal year 2017 and \$2.8 billion over the FYDP for modernizing our destroyers, 12 of which will also receive upgrades to their combat systems. It continues to support 11 carrier strike groups, investing \$2.7 billion in fiscal year 2017 and \$13.5 billion over the FYDP for new construction of Ford-class carriers, as well as \$2 billion in fiscal year 2017 and \$8.9 billion over the FYDP for midlife reactor refueling and overhauls on our current carrier fleet. And, as I will discuss in the reform section of this testimony, it supports modernizing our guided missile cruisers—providing them with more capability and a longer lifespan while freeing up significant funds that can be put toward a variety of uses.

I'd like to now address the Littoral Combat Ship (LCS), where we made an important tradeoff so we could put more money in submarines, Navy fighter jets, and many other critical areas. As such, the budget takes a new approach to the LCS and its associated frigate—buying a total of 40, not the 52 or more that were planned starting back in 2002. Let me explain why. First, to be clear, we're investing in LCS and frigates because we need the capability they provide, and for missions like minesweeping and anti-submarine warfare, they're expected to be very capable. But now, in 2016, we have to further balance our shipbuilding investments among guided missile destroyers and Virginia-class attack submarines. We face competitors who are challenging us on the open ocean with new submarines, ships, aircraft, and missiles—advanced capabilities we haven't had to contend with in a long time, meaning that we must now invest more in higher-end capabilities across our own fleet. The department's warfighting analysis called for 40 small surface combatants, so that's how many we're buying. Over the next 10 years, this will let us invest almost \$8 billion more into highly lethal ships and capabilities—all the while increasing both the number of ships and the capability of our battle fleet. While this will somewhat reduce the number of LCS available for presence oper-

ations, that need will be met by higher-end ships, and it will ensure that the warfighting forces in our submarine, surface, and aviation fleets have the necessary capabilities to defeat even our most advanced potential adversaries. Under this re-balanced plan, we will still achieve our 308-ship goal within the next 5 years, and we will be better positioned as a force to effectively deter, and if necessary defeat, even the most advanced potential adversaries.

#### *Land Investments*

To ensure our ground forces have the capabilities to counter emerging threats and the demonstrated ability to deter and if necessary fight and win a full-spectrum conflict, the budget will help provide our Army, Marine Corps, and special operations forces with greater lethality in several forms. This includes a next-generation shoulder-launched weapon, a life extension program as well as a replacement for the Army Tactical Missile System (ATACMS) that can be used for improved counter-battery and long-range strike, and increased firepower for Stryker armored fighting vehicles. Together these investments comprise \$780 million in fiscal year 2017 and \$3.6 billion over the FYDP.

Additionally, the budget invests \$735 million in fiscal year 2017, and \$6.8 billion over the FYDP, in the Joint Light Tactical Vehicle intended to replace the military's Humvees—procuring more than 2,000 vehicles in fiscal year 2017, and a total of more than 17,700 vehicles over the next 5 years. It also invests \$159 million in fiscal year 2017, and \$1.7 billion over the FYDP, in the Amphibious Combat Vehicle, which will replace the Marine Corps' aging Amphibious Assault Vehicle—helping procure over 200 vehicles over the next 5 years. And, as I discuss later in the reform section of this testimony, it supports the Army's ongoing Aviation Restructure Initiative—investing \$1.1 billion for 52 AH-64 Apache attack helicopters in fiscal year 2017, and \$5.7 billion for 275 Apaches over the FYDP, as well as \$1 billion for 36 UH-60 Black Hawk utility helicopters in fiscal year 2017, and \$5.6 billion for 268 Black Hawks over the FYDP.

The budget also invests \$9.1 billion for missile defense in fiscal year 2017, and \$47.1 billion over the FYDP. This reflects important decisions we've made to strengthen and improve our missile defense capabilities—particularly to counter the anti-access, area-denial challenge of increasingly precise and increasingly long-range ballistic and cruise missiles being fielded by several nations in multiple regions of the world. Instead of spending more money on a smaller number of more traditional and expensive interceptors, we're funding a wide range of defensive capabilities that can defeat incoming missile raids at much lower cost per round, and thereby impose higher costs on the attacker. The budget invests in improvements that complicate enemy targeting, harden our bases, and leverage gun-based point defense capabilities—from upgrading the Land-Based Phalanx Weapons System, to developing hypervelocity smart projectiles that as I mentioned earlier can be fired not only from the five-inch guns at the front of every Navy destroyer, but also the hundreds of Army M109 Paladin self-propelled howitzers. Additionally, the budget's missile defense investments maintain DOD's commitment to improving our homeland and theater defense systems—as we're increasing the number of deployed Ground-Based Interceptors (GBIs) from 30 to 44, redesigning the exo-atmospheric kill vehicle to improve the reliability of the Ground-Based Midcourse Defense system, and funding improvements and follow-on concept development for the Terminal High-Altitude Area Defense (THAAD) system. Specifically, we're investing \$1.2 billion in fiscal year 2017 and \$5.8 billion over the FYDP for the Ground-based Midcourse Defense program; for THAAD, we're spending \$640 million in fiscal year 2017 and \$3.6 billion over the FYDP, which includes procuring 24 interceptors in fiscal year 2017 and 149 over the FYDP; and, to research, develop, and deploy a new Long-Range Discrimination Radar, we're investing \$317 million in fiscal year 2017 and \$1 billion over the FYDP.

#### *Air Investments*

To ensure the U.S. military's continued air superiority and global reach, the budget makes important investments in several areas—and not just platforms, but also payloads. For example, it invests \$2.4 billion in fiscal year 2017 and \$8 billion over the FYDP in a wide range of versatile munitions—including buying more Small Diameter Bombs, JDAMs, Hellfires, and AIM-120D air-to-air missiles. We are also developing hypersonics that can fly over five times the speed of sound.

The budget continues to buy the stealthy, fifth-generation F-35 Lightning II Joint Strike Fighter. It includes \$10.1 billion in fiscal year 2017 and \$56.3 billion over the FYDP to procure a total of 404 F-35s across the force through 2021—43 F-35As for the Air Force in fiscal year 2017 as part of 243 to be purchased over the FYDP, 16 F-35Bs for the Marine Corps in fiscal year 2017 as part of 97 to be purchased

over the FYDP, and 4 F-35Cs for the Navy and Marine Corps in fiscal year 2017 as part of 64 to be purchased over the FYDP. This represents a slight deferral in Air Force F-35 procurement, which we're doing in order to free up funds to maintain a larger-size Air Force of 55 tactical fighter squadrons, and to improve avionics, radar, and electronic warfare systems in legacy bomber and fighter aircraft like the F-15, F-16, B-1, B-2, and B-52 fleets—increasing their lethality, survivability, and therefore usefulness in a full-spectrum conflict. At the same time, it also represents an increase in the Navy and Marine Corps' F-35 procurement, which is important to ensure sufficient high-end capability and numbers in our aircraft carriers' tactical fighter fleet.

Additionally, the budget invests \$1.4 billion in fiscal year 2017 and \$12.1 billion over the FYDP for continued development of the B-21 Long-Range Strike Bomber, as well as \$3.1 billion in fiscal year 2017 and \$15.7 billion over the FYDP to continue upgrading our aerial tanker fleet—buying 15 KC-46A Pegasus refueling tankers in fiscal year 2017 as part of 75 aircraft to be purchased over the FYDP.

The budget also reflects important decisions regarding future unmanned aerial systems, such as the Navy's Carrier-Based Aerial Refueling System (CBARS), formerly known as the Unmanned Carrier-Launched Air Surveillance and Strike (UCLASS) program—by focusing in the near-term on providing carrier-based aerial refueling, we're setting the stage for a future unmanned carrier air wing. With this approach, the Navy will be able to quickly and affordably field the kinds of unmanned systems that its carrier air wings need today, while laying an important foundation for future, more capable unmanned carrier-based platforms. We know we need to ensure aircraft can operate off the carrier in high-threat environments, and we're working hard to make them unmanned—it's just that the UCLASS program as previously structured was not the fastest path to get us there. This approach will allow us to get started integrating unmanned aircraft onto our aircraft carriers affordably and as soon as possible.

Furthermore, to maximize the capabilities and extend the reach of all our airborne systems, the budget reflects how we're expanding manned-unmanned teaming—from buying Navy MQ-4C Triton unmanned maritime surveillance and patrol aircraft, which can be paired with our P-8A Poseidon aircraft for a variety of missions; to buying Army AH-64 Apache attack helicopters that can pair with MQ-1C Gray Eagle scouts; to buying Air Force F-35s that can network with both payloads and platforms.

#### *Cyber and Electronic Warfare Investments*

This budget significantly increases our cyber capabilities, with new investments totaling over \$900 million in fiscal year 2017 compared to last year's budget.

Because defending our networks is and must be DOD's number-one mission in cyberspace, the budget makes significant investments to improve our defensive capabilities to deny a potential attack from succeeding. These include \$336 million over the FYDP to support more capable network perimeter defenses, as well as \$378 million over the FYDP to train and strengthen DOD's Cyber Protection Teams to respond to security breaches, grow our cyber training and testing ranges, and support tool development that will let our Cyber Mission Force quickly respond to cyberattacks against our networks regardless of where they are stationed around the world.

Reflecting our renewed commitment to deterring even the most advanced adversaries, the budget also invests in cyber deterrence capabilities, including building potential military response options. This effort is focused on our most active cyber aggressors, and is based around core principles of resiliency, denial, and response.

As part of DOD's second cyber mission—defending the Nation—the budget invests in an advanced capability to disrupt cyberattacks of significant consequences. And to support DOD's third cyber mission—providing offensive cyber options that if directed can augment our other military systems—the budget invests \$347 million over the FYDP to help provide cyber tools and support infrastructure for the Cyber Mission Force and U.S. Cyber Command.

DOD has a unique level of resources and cyber expertise compared to the rest of the Federal Government, and following the recent data breaches of the Office of Personnel Management's information technology systems, DOD has undertaken responsibility for the development, maintenance, and cybersecurity of the replacement background investigation systems and their data infrastructure. To provide proper support and a dedicated funding stream for this effort, the President's budget includes \$95 million for DOD in fiscal year 2017. Also, on a separate but related note, the budget invests \$454 million over the FYDP to ensure DOD will continue to have access to the trusted microelectronic components needed in our weapon systems. By

developing alternative sources for advanced microchips and trusted designs, this funding will help ensure the long-term security of our systems and capabilities.

Meanwhile, to protect our platforms and ensure U.S. freedom of maneuver in contested environments, the budget also continues to support research, development, testing, evaluation, and procurement of advanced electronic warfare capabilities—totaling \$3.7 billion in fiscal year 2017 and \$20.5 billion over the FYDP. To enhance the electronic survivability and lethality of fighter and bomber aircraft like the F/A-18, F-15, and B-2, we're investing in both offensive and defensive airborne capabilities, including the Air Force's Defensive Management System modernization and Eagle Passive Active Warning Survivability System, and also the Navy's Integrated Defensive Electronic Countermeasures and Next Generation Jammer. We're upgrading the radar on our E-3 Sentry AWACS with enhanced electronic protection to make adversary jammers less effective. Investments in the Navy's Surface Electronic Warfare Improvement Program will help our ships protect themselves better. And to help protect our ground forces, the budget invests in the Army's Common Infrared Countermeasures and Electronic Warfare Planning and Management Tool, as well as the Marine Corps' Intrepid Tiger pod.

While cyber and electronic warfare capabilities provide, for the most part, different techniques to achieve similar mission objectives, an integrated approach can yield additional benefits. This is reflected in our budget, including investments intended to ensure we can hold even the most challenging targets at risk.

#### *Space Investments*

As I mentioned earlier, this budget continues and builds upon important investments in last year's budget to help secure U.S. access to space and address space as an operational domain.

After adding over \$5 billion in new investments in DOD's 2016 budget submission to make us better postured for contested military operations in space—including over \$2 billion in space control efforts to address potential threats to U.S. space systems—this budget largely sustains those investments over the FYDP. While there is much more work ahead, we are on a good path in our efforts to complicate an adversary's ability to defeat our systems while also enhancing our ability to identify, attribute, and negate all threatening actions in space.

Meanwhile, the budget also supports strengthening our current space-based capabilities, and maturing our space command and control. It invests in more satellites for our Space-Based Infrared System to maintain the robust strategic missile warning capability we have today. And it allocates \$108 million over the FYDP to implement the Joint Interagency Combined Space Operations Center (JICSpOC), which will better align joint operations in space across the U.S. government.

DOD must have assured access to space through multiple reliable sources that can launch our critical national security satellites, which is why the budget invests \$1.8 billion for space launch in fiscal year 2017 and \$9.4 billion over the FYDP. Because we want to end the use of the foreign RD-180 engine as soon as possible, because we have a strong desire to preserve competition for space launch in order to ensure multiple launch service providers can sustain uninterrupted access to space, and to control costs, the budget includes funds for competitive public-private partnerships to help develop new launch services, which we believe is the most responsible way forward. Merely developing a new engine would not give us the assured access to space that we require. We plan to take advantage of the emerging commercial space launch marketplace using an innovative, more commercial approach—investing through competition in new launch services in return for priced options for future launches.

#### *Nuclear Enterprise Investments*

The budget also makes reforms and investments needed to continue providing a safe, secure, and effective nuclear deterrent. Compared to last year's budget submission, it adds \$10 billion over the next 5 years, for a total of \$19 billion in fiscal year 2017 and \$108 billion over the FYDP for maintaining, and modernizing the nuclear force and associated strategic command, control, and communications systems. This reflects DOD's continuing commitment to the nuclear triad and its critical mission.

In addition to making an array of investments across the nuclear enterprise—from increased funding for manpower, equipment, vehicles, and maintenance, to technological efforts that improve the sustainability of our bomber fleet—the budget also fully funds the first stages of our key nuclear modernization effort, in particular the replacement of our Ohio-class ballistic missile submarines. The Ohio Replacement Program is allocated \$1.9 billion in fiscal year 2017 and \$13.2 billion over the FYDP, which in addition to research and development will allow the first year of construction on an incrementally-funded first ship to begin in fiscal year 2021.

We expect the total cost of nuclear modernization to be in the range of \$350–\$450 billion. Although this still presents an enormous affordability challenge for DOD, we believe it must be funded. Previous modernizations of America’s strategic deterrent and nuclear security enterprise were accomplished by topline increases to avoid having to make drastic reductions to conventional forces, and it would be prudent to do so again. I hope DOD can work with Congress to minimize the risk to our national defense.

*Building the All-Volunteer Force of the Future*

While we have the finest fighting force in the world today, that excellence is not a birthright, and we can’t take it for granted in the 21st century. We have to earn it again and again, starting with our most enduring advantage—our people.

That’s what building the force of the future is all about: making sure that long into the future, my successors will be able to count on the same excellence in people that I do today. And we have several overarching priorities to help us do that, like attracting a new generation of talented Americans, promoting diversity, and rewarding merit; carving tunnels through the walls between DOD, the private sector, our reserve force, and other agencies across the government; and updating and modernizing our personnel management systems with technology and data analysis to help improve the choices and decisions we make related to our people.

I made this commitment to President Obama when he asked me to serve as Secretary of Defense, and so shortly after I was sworn in, I visited my old high school in Abington, Pennsylvania to outline my vision for the force of the future. I talked about how, in the face of generational, technological, and labor market changes, we in the Pentagon must try to make ourselves even better at attracting talent from new generations of Americans. In the months that followed, I went to places like Silicon Valley and St. Louis, and heard from companies like Facebook, Boeing, and LinkedIn about what they’re doing to compete for talent in the 21st century. And this past December, I announced that we’re opening all combat positions to women, to expand our access to 100 percent of America’s population for our all-volunteer force.

Throughout this process, we’ve always been mindful that the military is a profession of arms. It’s not a business. We’re responsible for defending this country—for providing the security that allows our friends and family members and fellow citizens to go to school, go to work, to live their lives, to dream their dreams, and to give the next generation a better future.

The key to doing this successfully is leveraging both tradition and change. While the military cannot and should not replicate all aspects of the private sector, we can and should borrow best practices, technologies, and personnel management techniques in commonsense ways that work for us, so that in future generations, we’ll keep attracting people of the same high caliber we have today—people who will meet the same high standards of performance, leadership, ethics, honor, and trust we hold our force to today.

Last spring I asked DOD’s Personnel and Readiness chief to lead a team in developing a package of bold proposals, which they did—building on the great work the military services were already doing, and also coming up with some new ideas. Subsequently, a senior leadership team led by Deputy Secretary of Defense Bob Work and Vice Chairman of the Joint Chiefs of Staff General Paul Selva has been working with the service vice chiefs to closely analyze each proposal and make recommendations before I decide. While this process is still ongoing for some proposals, I’ve decided to announce my decisions on other proposals as I’ve made them, which I will now detail.

*Greater Permeability and Talent Management*

I outlined the first link we’re building to the force of the future at George Washington University last November, announcing over a dozen new initiatives in several categories that are intended to make our future Defense Department better connected to 21st century talent.

First, we’re creating what we call ‘on-ramps’ for people who aren’t involved with DOD but want to try contributing to our mission. One way we’re doing this is by having better managed internship programs that more effectively transition promising interns into employees. Another is our new Defense Digital Service, which brings in talent from America’s vibrant, innovative technology community for a time to help solve some of our most complex problems. We’re also going to bring in resident entrepreneurs, who will work with senior leaders on challenging projects for a year or two. And we’re going to hire a chief recruiting officer to bring in top executives for stints in civilian leadership roles, as we had in the past with people like Dave Packard, co-founder of HP, who also served as Deputy Secretary of Defense.

Second, we're creating short-term 'off-ramps' for those currently in DOD, so they can gain new skills, experiences, and perspectives from outside and then bring them back in to help keep us strong, creative, and forward-thinking. One way we're doing this is by expanding and broadening the Secretary of Defense Corporate Fellowship program, including by opening it up to qualified enlisted personnel. Another example is the Career Intermission Pilot Program, which lets people take a sabbatical from their military service for a few years while they're getting a degree, or learning a new skill, or starting a family. DOD plans to seek authorities to make this program permanent, and looks forward to working with Congress to do so—similar to how we were able to partner last year to update and modernize retirement benefits and ensure that the 80 percent of our force that doesn't serve 20 years will get the benefits they earned whenever they move on to whatever's next in life.

And third, we're going to use 21st century data and technology to improve and modernize our talent management systems. We're launching LinkedIn-style pilot programs to help give servicemembers and units more choice in matching up for future assignments. We're creating an Office of People Analytics to leverage big data to inform our personnel policies. We're finally implementing exit surveys, so we can have quantitative data on why people decide to leave. And to help us keep bringing in the best people, we're looking at ways to evaluate recruit performance, improve outcomes, and better analyze trends that if left unchecked could indicate or lead to our military's insularity from the rest of society.

#### *Family Support and Retention*

Next, in January, I announced our so-called second link to the force of the future, a set of several initiatives with a singular focus: strengthening the support we provide our military families to improve their quality of life. They were developed keeping in mind DOD's recruiting, retention, and career and talent management needs, as well as our closely-linked readiness and warfighting demands, which must always guide us.

We know that our all-volunteer force is predominantly a married force—52 percent of our enlisted force is married, and 70 percent of our officer force is married. We also have another 84,000 military-to-military marriages, with 80 percent of them stationed within 100 miles of each other. So while we recruit a servicemember, we retain a family. This means that what we do to strengthen quality of life for military families today, and what we do to demonstrate that we're a family-friendly force to those we want to recruit, is absolutely essential to our future strength. While we often speak of commitments to family and country in the same breath, the stresses of military service on our families are heavy and well known; among the stresses military families face, having and raising children is near the top. We also know that at 10 years of service, when women are at their peak years for starting a family, women are retained at a rate 30 percent lower than men across the services. And we know that a high level of work and family conflict is one of the primary reasons they report leaving service.

To build the force of the future, tackling these problems is imperative, especially when the generation coming of age today places a higher priority on work-life balance. These Americans will make up 75 percent of the American workforce by 2025. Nearly four-in-five of them will have a spouse or a partner also in the workforce—twice the rate of baby boomers. These Americans wait longer to have children, and when they do have children, they want to protect the dual earning power of their families to provide for their children accordingly.

That's why, for starters, we're providing a more competitive standard for maternity and paternity leave across our joint force—setting 12 weeks of fully paid maternity leave as the standard across the joint force, and working with Congress to seek authorities to increase paid paternity leave for new fathers from 10 to 14 days, which they can use in addition to annual leave. These changes put DOD in the top tier of institutions nationwide, and will have significant influence on decisionmaking for our military family members. For both mothers and fathers alike, this establishes the right balance of offering a highly competitive leave policy while also maintaining the readiness of our total force. While I don't take lightly that 12 weeks of maternity leave represents a downshift from what the Navy pursued last summer, we will be at the forefront in terms of competition, especially as part of the comprehensive basket of family benefits we're providing across the joint force. This will be an increasingly important factor as current and future generations of parents have different views and expectations in parenting, and we must continue to be able to attract and retain the best talent among them.

Additionally, we're expanding the childcare we provide on our bases, because whether for single parents, for families in which both parents work outside the home, or for every mother or father in our military, childcare hours should be as

responsive as possible to work demands. So based on feedback from pilot programs, and in the interest of responding to typical work hours at our installations, we will increase childcare access to 14 hours a day across the force. By providing our troops with childcare they can rely on—from before reveille to after taps—we provide one more reason for them to stay on board. And we show them that supporting a family and serving our country are by no means incompatible goals.

We're also making relatively inexpensive improvements so that our workplaces are more accommodating to women when they return from maternity leave, with a focus on making it easier for them to continue breastfeeding if they choose. To make the transition between maternity leave and returning to work for military mothers smoother, to enhance our mission effectiveness, and to comply with standards that apply to nearly every organization outside the military, we're requiring the installation or modification of mothers' rooms throughout all facilities when there are more than 50 women regularly assigned.

Furthermore, we can also be more creative about making reasonable accommodations for members of our force who face difficult family geographic situations while at the same time preserving our force's effectiveness. Data indicates that allowing family members to trade the ability to remain at a station of choice in exchange for an additional active-duty service obligation is one approach that could increase retention, while preserving readiness. DOD will be seeking legislative authority to this effect—when the needs of the force permit a servicemember to stay at their current location, we will seek to empower commanders to make reasonable accommodations, in exchange for an additional service obligation.

Finally, as a profession of arms, we ask our men and women to make incomparable sacrifices. We ask them, potentially, to place themselves at risk of sacrificing their ability to have children when they return home. To account for this more fully in the benefits we provide our troops, DOD will cover the cost of freezing sperm or eggs through a pilot program for active-duty servicemembers—a benefit that will help provide our men and women, especially those deployed in combat, with greater peace of mind. This investment will also provide greater flexibility for our troops who want to start a family, but find it difficult because of where they find themselves in their careers.

Each of these initiatives is significant in its own right. Taken together, they will strengthen our competitive position in the battle for top talent, in turn guaranteeing our competitive position against potential adversaries. The initiatives approved to date total \$867 million across the FYDP; we've included this in our budget because it's a worthy investment that will yield great returns.

#### *More Still to Come*

While these first two links are important, we will have more to announce on the force of the future in the coming months. For example, we're taking a serious look at some commonsense reforms in our officer promotion system, and I greatly appreciate Congressional leaders from both parties who have indicated their support for such reforms in principle. We're also looking at ways to improve how we manage our civilian personnel, working with the government-wide Office of Personnel Management as well as Federal employee unions. In both of these efforts, working with Congress will be essential to ensure that our force of the future is as strong as the force of today.

#### *Reforming the DOD Enterprise*

As I've said consistently from the moment I became Secretary of Defense, I cannot ask for more taxpayer dollars for defense without being candid about the fact that not every defense dollar is spent as wisely or responsibly as it could be, and also being determined to change that and make our department more accountable. That's why reforming the DOD enterprise is so important—from improving how we're organized so we can best respond to the challenges and opportunities of the future security environment, to continuing to improve our acquisition and enterprise-wide business and audit practices, to reducing excess infrastructure and overhead, to modernizing the military healthcare system.

Before I address the reforms in this budget submission, it's important to consider the recent history of defense reform—how DOD has been embarked on a reform path for much of the last 7 years, and how we appreciate Congress's work with us over the last year on acquisition and modernized retirement reforms.

Despite what some may think, this administration hasn't been dragging its feet when it comes to defense reform—the reality has been quite the opposite. Beginning in 2009, we reduced the number of senior executives and general and flag officers, while working with Congress to trim management headquarters staffs by 20 percent, and move DOD toward auditability. We've done three iterations of the Better

Buying Power initiative I established to continuously improve our acquisitions, with Better Buying Power 3.0 incorporated into this budget, and we're seeing compelling indications of positive improvements, including in areas like reduced cost growth and reduced cycle time. And we've continually submitted much-needed reforms to strengthen the efficiency and capability of our force—many of which have been continually denied, either in whole or in part, at a cost for both taxpayers and our troops. This last part poses a real problem, because every dollar Congress denies us in reform is a dollar we can't invest in security we need to deter and defend against today's and tomorrow's threats.

Now is the time for action. DOD will work closely with Congress on any anticipated reform legislation, and we welcome an open and collaborative process. In the past, legislative reform has proven to be a double-edged sword—sometimes it leads to constructive change, which is good, but other times it just adds to bureaucracy and overhead, even if that was never the intent. I hope that with the focus on reform we've recently been seeing in this and the other defense committees in Congress, we can work together to do reform right. And we should, because there's a lot that needs to be accomplished in many areas.

#### *Continuously Improving Acquisition*

DOD has been, and still is, absolutely committed to improving acquisition outcomes. After 5 years of implementing our Better Buying Power (BBP) initiatives for continuous process improvements in the defense acquisition system, we're seeing compelling indications of significant improvement in acquisition outcomes—for example, annual growth metrics for contracted costs on our major programs have dropped dramatically from a peak of 9.1 percent in 2011 to a 30-year low of 3.5 percent in 2015, and a much higher percentage of major programs are projecting cost reductions relative to initial baselines than in the past. While these developments are positive signs, we can and must do more to sustain and where possible accelerate our momentum to keep improving and deliver better military capability while protecting American taxpayers.

We need to continue reducing overhead and bureaucracy associated with the acquisition system, making it more agile and having a faster flow of commercial technology into our weapon systems. DOD is comfortable with the reforms in the fiscal year 2016 National Defense Authorization Act—which included several legislative reforms that DOD proposed last year—and we strongly support the increased role of the service chiefs in acquisition programs, particularly on cost and requirements trade-offs. Going forward, it's important that we take the responsible approach to absorb these reforms and see their effects before making additional major changes.

DOD also appreciates Congress's interest in flexibility and agility, because the pace of threat changes and technology development are not compatible with our long cycles of budget submission, authorization, and appropriations. And DOD will be looking for opportunities to work with Congress to improve the efficiency and effectiveness of our acquisition process. In particular, we would welcome greater flexibility in appropriations or reprogramming to initiate development of urgently needed capabilities. The flexibility to start a program as soon as a threat is identified would save critical time—as much as 2 years under current practices—and position both DOD and industry to more quickly initiate development, without a long-term commitment, outside the traditional budget cycle. This step would represent a 'free' 2 years of lead time to acquiring a new capability.

#### *Leaner Business Practices and Reducing Excess Overhead and Infrastructure*

The budget submission reflects several important efforts to spend taxpayer dollars more efficiently, generating savings that would be much better invested in other areas like the fight against ISIL or deterring Russian aggression.

Part of this means making more reductions to overhead, and also adopting some commonsense business practices that are long overdue—which in total we expect to help save nearly \$8 billion over the next 5 years. By better managing the 20 percent management headquarters reductions I mentioned earlier, including delayering and flattening management organizational structures, and also by increasing the reduction to 25 percent, reviewing service contracts, and making business operations and IT more efficient, we expect to save close to \$5.9 billion over the FYDP. And we're modernizing how we manage our commissaries and military exchanges, to optimize their business practices and respond to the changing needs of their customers. Unlike commissary and military exchange reforms proposed in previous budgets, this new approach protects the benefits they provide our people while still generating expected savings of about \$2 billion over the FYDP.

We're also making real progress on reforming DOD's myriad systems and business processes to meet our commitment to be audit ready by the beginning of fiscal year

2018. The three military departments began audits of their budgets for the first time last year, and DOD financial audits currently cover over 75 percent of our total General Fund budgetary resources and just over 90 percent of the current year dollars.

In addition, we need to stop spending so much money to hold onto bases we don't need, and implement a domestic round of Base Realignment and Closure (BRAC) in 2019 as we're requesting. While it's helpful that the fiscal year 2016 National Defense Authorization Act allowed a study of DOD's excess infrastructure, the bottom line is that we have more bases in more places than we need, with preliminary analysis indicating that we have over 20 percent excess infrastructure. To ignore this fact while criticizing DOD for wasteful spending is not only a sin of omission, but also a disservice to America's taxpayers. Last year's Congressional denial forced the BRAC round to slip from 2017 to 2019, further prolonging our ability to harvest savings we greatly need. By then it will have been 14 years since DOD was allowed to right-size its domestic infrastructure, which any business leader or citizen would think is ridiculous—and they'd be right. Now is the time to fix it.

#### *Reexamining Goldwater-Nichols and Defense Institutional Reform*

I appreciate that Congress shares my desire to make institutional reform a priority. As a learning organization, the U.S. military and the Defense Department has a long history of striving to reform our command structures and improve how our strategies and policies are formulated, integrated, and implemented. Indeed, even before the Defense Department was even established, military leaders and policy-making officials were discussing how the military services could be unified, and exploring ways to develop stronger policy processes and advice. The result was the National Security Act of 1947 and its amendments, which, among other historic changes, established the position of the Secretary of Defense, the Joint Chiefs of Staff, and the National Security Council. Later reforms, particularly Eisenhower-era changes, helped strengthen the offices of the Defense Secretary and gave new authorities to the Chairman of the Joint Chiefs.

But it was the Goldwater-Nichols Act, enacted 30 years ago this fall, that's most responsible for today's military and defense institutional organization. It solidified the chain of command from the President to the Secretary of Defense to the Combatant Commanders. It affirmed civilian control of the military by codifying in law that the Chairman of the Joint Chiefs is outside the chain of command, in order for him to be able to provide vital, objective, independent military advice to the Defense Secretary and the President. At the same time, it also strengthened the Chairman's role, created the position of Vice Chairman of the Joint Chiefs, and centralized the role and voice of the Combatant Commands. And it reinforced the concept of jointness, especially with respect to the careers of senior officers, by requiring them to gain professional experience outside of their service in order to advance further in their careers. All senior officers know these policies today, for they are integral to career advancement and achievement, and they reflect the reality of how our servicemembers train and fight every day as a joint force. Around this time, albeit unrelated to Goldwater-Nichols, important changes were made to reform defense acquisition, based on the recommendations of the Packard Commission.

As a whole, all these changes were overwhelmingly beneficial—a credit to the work of not only the members of Congress who passed the legislation, but also their staffs. What they put into law has given us generations of soldiers, sailors, airmen, and Marines who've grown accustomed to operating together as a joint force—overcoming many inter-service frictions of decades before. And it's enabled our Nation to draw greater benefit from the advice of many valued Chairmen—from General Colin Powell during Operation Desert Storm, to General Joe Dunford today.

This year, as Goldwater-Nichols turns 30, we can see that the world has changed since it was enacted: instead of the Cold War and one clear threat, we face a security environment that's dramatically different, even from the last quarter-century. It's time that we consider practical updates to this critical organizational framework, while still preserving its spirit and intent. For example, we can see in some areas how the pendulum between service equities and jointness may have swung too far, as in not involving the service chiefs enough in acquisition decisionmaking and accountability; or where subsequent world events suggest nudging the pendulum further, as in taking more steps to strengthen the capability of the Chairman and the Joint Chiefs to support force management, planning, and execution across the combatant commands, particularly in the face of threats that cut across regional and functional combatant command areas of responsibility, as many increasingly do.

With this in mind, last fall I asked DOD's Deputy Chief Management Officer, Peter Levine, and Lieutenant General Tom Waldhauser of the Joint Staff, to lead a comprehensive, department-wide review of these kinds of organizational issues—

spanning the Office of the Secretary of Defense, the Joint Staff, the combatant commanders, and the military departments—to identify any potential redundancies, inefficiencies, or other areas of possible improvement. And they’ve now come to some preliminary recommendations. Over the coming weeks, we will execute some of these decisions under our own existing authority. For others, where legislation is needed, we would like to work with Congress on implementation as it considers this year’s National Defense Authorization Act. Of course, both House and Senate Armed Services Committees have their own important reviews of this issue underway as well—making this area ripe for working together, something we’ve been doing effectively, and will continue to do on this topic. Because when it comes to these fundamental matters of our national security, that’s what we have to do—work together.

First, we need to better develop transregional and multifunctional integration and advice—an imperative considering that the challenges we face today are less likely than ever before to confine themselves to neat regional or functional boundaries. Terrorism is one example, of course; beyond that, we also face potential future nation-state adversaries with widening geographic reach, but also widening exposure—something we may want to take into account in order to de-escalate a crisis and deter aggression. And in other cases, we may have to respond to multiple threats across the globe in overlapping timeframes. In an increasingly complex security environment like this, and with a decision chain that cuts across the combatant commands only at the level of the Secretary of Defense, we’re not postured to be as agile as we could be. Accordingly, we need to clarify the role and authority of the Chairman, and in some cases the Joint Chiefs and the Joint Staff, in three ways: one, to help synchronize resources globally for daily operations around the world, enhancing our flexibility, and my ability, to move forces rapidly across the seams between our combatant commands; two, to provide objective military advice for ongoing operations, not just future planning; and three, to advise the Secretary of Defense on military strategy and operational plans, for example, helping ensure that our plans take into account in a deliberate fashion the possibility of overlapping contingencies. We will pursue these changes in line with Goldwater-Nichols’s original intent, which is to enable the military to better operate in a seamless way, while still preserving both civilian control and the Chairman’s independence to provide professional military advice outside of the chain of command. Some have recommended the opposite course—to put the Chairman into the chain of command—but both Chairman Dunford and I agree that would erode the Chairman’s objectivity as the principal military advisor to the President and the Secretary of Defense.

The second area where we need to make updates is in our combatant commands—adapting them to new functions, and continuing to aggressively streamline headquarters. Adapting to new functions will include changes in how we manage ourselves in cyberspace. DOD must deal with the five challenges facing our Nation, across all domains—not just the traditional air, land, sea, and space, but also cyberspace, where our reliance on technology has given us great strengths and great opportunities, but also some vulnerabilities that adversaries are eager to exploit. That’s why the budget increases cyber investments over the next 5 years, and why we should consider changes to cyber’s role in DOD’s Unified Command Plan. Meanwhile, DOD is currently in the process of reducing our management headquarters by 25 percent—a needed step—and we’re on the road to accomplish that goal thanks to the partnership of the congressional defense committees, which once again we deeply appreciate. We can meet these targets without combining Northern Command and Southern Command, or combining European Command and Africa Command—actions that would run contrary to why we made them separate, because of their distinct areas of emphasis and increasing demands on our forces in them. And indeed those demands have only further increased in recent years, with each command growing busier. So instead of combining these commands to the detriment of our friends, our allies, and in fact our own command and control capabilities, we intend to be more efficient by integrating functions like logistics, intelligence, and plans across the Joint Staff, the combatant commands, and subordinate commands, eliminating redundancies while not losing capability. Much can be done here. Additionally, in the coming weeks the Defense Department will look to simplify and improve command and control where the number of four-star positions have made headquarters either top-heavy, or less efficient than they could be. The military is based on rank hierarchy, where juniors are subordinate in rank to their seniors; this is true from the platoon to the corps level, but it gets complicated at some of our combatant and component command headquarters, where we have a deep bench of extremely talented senior leaders. So where we see potential to be more efficient and effective, billets currently filled by four-star generals and admirals will be filled by three-stars in the future.

Next is acquisition. Thirty years after the Packard Commission's recommendations led to the establishment of an undersecretary of defense for acquisition, service acquisition executives, and the roles of program executive officers and program managers, it's clear we still can and must do more to deliver better military capability while making better use of the taxpayers' dollars. One way we seek to improve in this context is by streamlining the acquisition system itself. This will include evaluating and where appropriate reducing other members of the Defense Acquisition Board—it's currently composed of about 35 principals and advisors, each of whom is likely to feel empowered as a gatekeeper for acquisition; reducing these layers will both free up staff time and focus decisionmaking energy on overcoming real obstacles to program success rather than bureaucratic hurdles. And we also intend to reduce burdensome acquisition documentation—just for one example, in cases where the defense acquisition executive serves as the milestone decision authority, the current process dictates that 14 separate documents be coordinated within the department. Reducing these paperwork requirements in a meaningful way, and pushing approval authority lower down when a program is on the right track, will eliminate redundant reviews and shorten review timelines—ultimately getting capabilities fielded to our troops sooner, which our service chiefs and our combatant commanders desire and deserve.

The last major area where we need to update Goldwater-Nichols is in making changes to joint personnel management. One of the hallmarks of Goldwater-Nichols is that it made joint duty required for all officers who wanted to rise to the highest levels of our military. In so doing, it led to great advances in jointness across the military services—such that almost all our people know why, and how, we operate as a joint team—and it's also significantly strengthened the ability of our Chairmen, our Joint Chiefs, and our Combatant Commanders to accomplish their joint responsibilities. But as we've learned over the years what it takes to operate jointly, it's become clear that we need to change the requirements for joint duty assignments, which are more narrow and rigid than they need to be. Accordingly, we're proposing to broaden the definition of positions for which an officer can receive joint duty credit, going beyond planning and command-and-control to include joint experience in other operational functions, such as intelligence, fires, transportation and maneuver, protection, and sustainment, including joint acquisition. For example, while a staff officer in a combatant command would get joint duty credit, an officer in a combined air operations center coordinating with servicemembers in all different uniforms to call in airstrikes against ISIL might not. In another case, take two cyber airmen working at a combatant command—one does cyber plans and gets joint credit, the other does cyber targeting and doesn't. And while a logistics planner at a combatant command doesn't receive joint credit, their operational plans counterpart does. So what we're proposing will fix these discrepancies and fulfill the true purpose of Goldwater-Nichols, which was to ensure meaningful joint experience. Additionally, we're also proposing to shorten the amount of time required to accumulate joint duty, from 3 years to 2 years, so top personnel have more flexibility to take on command assignments and other opportunities to broaden and deepen their careers.

Now, going forward, it's important to make all these updates under the guiding principle of 'do no harm.' Goldwater-Nichols took 4 years to write, and it's been incredibly successful over three decades—to the credit of the reforms it put in place, we are not driven today by a signal failure like Desert One. To the contrary—I'm deeply proud of how our people have operated in Iraq and Afghanistan over the last 15 years. So we come at this from a different direction, and the updates we make now must not undo the many positive benefits that Goldwater-Nichols has had for DOD. Instead, they must build on them.

#### *Modernizing and Simplifying the Military Healthcare System*

DOD greatly appreciates that Congressional leaders have said 2016 will be the year to reform our military healthcare system, TRICARE, after having passed retirement modernization reform in 2015. As you know, DOD has proposed various ways to reform TRICARE for several years, so we look forward to working very closely with Congress in the year ahead. The reforms reflected in the budget give beneficiaries more simplicity and choice in how they manage their healthcare, while also incentivizing the much more affordable use of military treatment facilities. This will not only save money, but also maximize the workload and readiness of our military's medical force, giving our doctors, nurses, medics, and corpsmen the experience they need to be effective at their mission. Together this should generate about \$548 million in fiscal year 2017 and almost \$7 billion over the FYDP that can be better spent in other ways without sacrificing the care of our people. It's time to get this done.

*Making Sure Retirement Reform Works*

DOD greatly appreciates being able to work closely with Congress last year in reforming the military's retirement system. In this year's budget submission, we are including a few modifications to military retirement reform to help make sure those reforms work in the best possible way for the future strength and success of our military.

First, continuation pay should not be an entitlement at 12 years of service, but rather a vitally important force shaping tool. DOD should have the flexibility to determine if and when to offer this benefit so we can better retain the talent we need the most at any given time.

Second, the blended retirement plan that Congress passed last year needs some modifications to avoid having adverse effects on retention—in particular, slightly raising the maximum matching contribution from 4 percent to 5 percent. To improve retention, we also propose increasing the number of years a servicemember has to serve before matching contributions begin—so instead of beginning them at the start of their third year of service, it would be at the start of their fifth year of service, after their first reenlistment. DOD looks forward to working with Congress to make these proposals a reality.

*The Right Force Structure for Current and Future Operations*

The budget also reflects critical decisions on force structure reforms, all of which are vital to making sure our troops have the capabilities they need for both present and future missions. While Congress has too often rejected such reforms out of hand, our decisions this year show that when world events and operational demands require the Defense Department to change its plans, it does so. In turn, Congress must do the same, and recognize that with a set budget and the need to invest in advanced capabilities to strengthen high-end deterrence, it's time to seriously consider these reforms and stop tying our hands from implementing them.

I mentioned earlier that we're pushing off the A-10's final retirement until 2022 so we can keep more aircraft that can drop smart bombs on ISIL; in addition to changing when A-10s will be retired, we're also changing how it will happen. As 2022 approaches, A-10s will be replaced by F-35s only on a squadron-by-squadron basis as they come online, ensuring that all units have sufficient backfill and that we retain enough aircraft needed to fight today's conflicts.

While some members of Congress may think the Navy's phased approach for modernizing its guided missile cruisers is just a ploy to quickly retire them, that is incorrect—in fact, retiring them now or anytime soon would be a serious mistake. Our cruisers are the best ships we have for controlling the air defenses of a carrier strike group, and given the anti-ship missiles being developed by other nations, we not only can't afford to go without them; we also need them to be as modern and capable as possible, and for them to stay in service as long as they can. The Navy's plan is still smarter and more affordable than the approach laid out by Congress, saving us \$3 billion over the FYDP that we're putting to good use elsewhere in the budget. And to make clear that this is not a ploy to quickly retire our cruisers, we will be submitting proposed legislative language that Congress can pass to hold the department to its word.

Additionally, the Army is continuing to implement its Aviation Restructure Initiative in accordance with the fiscal year 2015 National Defense Authorization Act as the Chief of Staff of the Army reviews the recent findings of the National Commission on the Future of the Army. While we will revisit the Army's aviation transfer plan when we receive the Chief of Staff of the Army's report, the Commission's proposal to keep four Apache battalions in the Army National Guard could cost over \$2.4 billion if the Army fully equips all 20 active battalions and keeps all aircraft currently dedicated to its equipment set in South Korea. By improving the readiness of the Army's Apache attack helicopters, and better leveraging the diverse capabilities Black Hawk helicopters bring to the table for National Guard missions—both here at home, and around the world when called upon as an operational reserve—the Army's planned Aviation Restructure Initiative is in the best interests of both the Army as well as the taxpayers who support it.

*The Opportunity of Reform*

Regardless of how any of our proposed reforms might be initially received, DOD needs Congress to work together with us on a path forward for all of them, because there's a real opportunity in front of us.

With last fall's budget deal, you showed that cooperation and prudent compromise for the good of our future security and strength was actually possible. And our reform submissions on things like the A-10, commissaries, and TRICARE reflect the

fact we've heard Congress's concerns about past submissions, and made adjustments accordingly.

If we don't lead the way ahead together, both troops and taxpayers alike will be forced to deal with the consequences. So let's work together on their behalf.

REQUESTS OF THIS COMMITTEE: THE IMPERATIVE OF WORKING TOGETHER

Before concluding, I want to reemphasize the big picture, because this budget marks a major inflection point for the Department of Defense, and we need your support for it.

For a long time, DOD tended to focus and plan and prepare for whatever big war people thought was coming over the horizon, at one point becoming so bad that after a while, it started to come at the expense of current conflicts—long-term at the expense of the here-and-now. Thankfully we were able to realize that over the last decade, correct it, and with help from Congress turn our attention to the fights we were in.

The difference today is that, while such a singular focus made sense when we were facing off against the Soviets or sending hundreds of thousands of troops to Iraq and Afghanistan, it won't work for the world we live in. Now we have to think and do a lot of different things about a lot of different challenges—not just ISIL and other terrorist groups, but also competitors like Russia and China, and threats like North Korea and Iran. We don't have the luxury of just one opponent, or the choice between current fights and future fights—we have to do both, and we have to have a budget that supports both. That means funding a force with the right size, readiness, and capabilities to prevail in today's conflicts while simultaneously building a force that can prevail in the future—recognizing that future force won't exist unless we take actions today. That's what this budget submission was designed to do, and we need your help to do it.

I thank this committee again for overwhelmingly supporting the Bipartisan Budget Act that set the size of our budget; our submission focuses on the budget's shape, and we hope you approve it. I know some may be looking at the difference between what we proposed last year and what we got in the budget deal, but I want to reiterate that we've mitigated that difference, and that this budget meets our needs.

In this context, I have serious concerns with a proposal from one of the defense committees to underfund DOD's overseas warfighting accounts by \$18 billion dollars, and spend that money on programmatic items we didn't request. While I don't expect this committee to consider such a proposal, I have to say that this approach is deeply troubling, and flawed for several reasons. It's gambling with warfighting money at a time of war—proposing to cut off our troops' funding in places like Afghanistan, Iraq, and Syria in the middle of the year. It would spend money on things that are not DOD's highest unfunded priorities across the joint force. It buys force structure without the money to sustain it and keep it ready, effectively creating hollow force structure, and working against our efforts to restore readiness. It doesn't address the much bigger strategic risk DOD faces of \$100 billion in looming automatic cuts; in fact, it's a step in the direction of unraveling the Bipartisan Budget Act, which provided critical stability that DOD needs now and desires for the future. And it's another road to nowhere, with uncertain chances of ever becoming law, and a high probability of leading to more gridlock and another continuing resolution...exactly the kind of terrible distraction we've seen for years, that undercuts stable planning and efficient use of taxpayer dollars, dispirits troops and their families, baffles friends, and emboldens foes. I cannot support such maneuvers as Secretary of Defense.

The budget deal was a good deal—it gave us stability, and for that we remain grateful. Doing something to jeopardize that stability would concern me deeply. The greatest strategic risk we face in DOD is losing that stability this year, and having uncertainty and sequester in future years. That's why going forward, the biggest concern to us strategically in the Congress is averting the return of sequestration next year so we can sustain all these critical investments over time.

By working together, I am confident we can succeed, because in many ways we already have. If we think back to those defense investments and decisions that changed the course of our Nation's and our military's history for the better—and not just in technologies like GPS, the Internet, and satellite communications, but also in other areas, like jointness and the all-volunteer force—they were all able to benefit our security and our society because they garnered support across the aisle, across branches of government, and across multiple administrations.

That same support for what's in this budget is essential today to address the security challenges we face and seize the opportunities within our grasp. We need your support in the decisions that our senior military leaders and I are advocating for.

We need you to work with us, and not tie our hands, when it comes to pursuing smart and critical reforms. And we need you to provide adequate, stable, predictable resources, as only you can, by coming together as you have before—including, in the coming years, to avert the return of sequestration once again. As long as you do, I know our national security and national strength will be on the right path, and America's military will continue to defend our country and help make a better world for generations to come.

Thank you.

Senator COCHRAN. Thank you very much, General Carter.

I am now going to invite the Chairman of the Joint Chiefs of Staff, General Dunford, to make whatever opening statement he would submit to the committee. And then we will turn to our members of the subcommittee for any questions of the panel.

General Dunford.

**STATEMENT OF GENERAL JOSEPH F. DUNFORD, JR., USMC, CHAIRMAN, JOINT CHIEFS OF STAFF**

General DUNFORD. Chairman Cochran and distinguished members, thanks very much for the opportunity to join Secretary Carter and Secretary McCord in appearing before you here today.

I am honored to represent the extraordinary young men and women of the joint force. Our soldiers, sailors, airmen, marines, and our civil servants remain our single most important competitive advantage. And thanks to your support, the United States' military is the most capable fighting force in the world.

I don't believe we should ever send Americans into a fair fight; rather, we have to maintain a joint force that has the capability and credibility to assure our allies and partners, deter aggression, and overmatch any potential adversary. This requires us to continually improve our joint warfighting capabilities, restore full-spectrum readiness, and develop the leaders who will serve as the foundation for the future.

The United States is now confronted with challenges from both traditional state and non-state actors. The Department has identified five strategic challenges, and Secretary Carter has outlined those challenges. Russia, China, Iran, and North Korea continue to invest in military capabilities that reduce our competitive advantage. They're also advancing their interests through competition with a military dimension that falls short of traditional armed conflict in the threshold for a traditional military response. Examples include Russian actions in the Ukraine, Chinese activities in the South China Sea, and Iran's malign activity across the Middle East. At the same time, non-state actors, such as ISIL and Al Qaeda, pose a threat to the homeland, the American people, our partners, and our allies. Given the opportunity, such extremist groups would fundamentally change our way of life.

As we contend with the Department's five strategic challenges, we recognize that successful execution of our defense strategy requires that we maintain credible nuclear and conventional capabilities. Our strategic nuclear deterrent remains effective, but it's aging, and it requires modernization. Therefore, we are prioritizing investments needed for safe, secure, and effective nuclear deterrent.

We're also making investments to maintain a competitive advantage in our conventional capabilities, and we must further develop

capabilities in vital and increasingly contested domains of space and cyberspace.

As the joint force acts to mitigate and respond to challenges, we do so in the context of a fiscal environment that has hampered our ability to plan and allocate resources most effectively. Despite partial relief by Congress from sequester-level funding, the Department has absorbed \$800 billion in cuts and faces an additional \$100 billion of sequestration-induced risk through fiscal year 2021.

Absorbing significant cuts over the past 5 years has resulted in our underinvesting in critical capabilities, and unless we reverse sequestration, we'll be unable to execute the current defense strategy, and specifically to address the five challenges that the Secretary mentioned in his opening remarks.

The fiscal year 2017 budget begins to address the most critical investments required to maintain our competitive advantage, and to the extent possible, within the resources provided by the 2015 Bipartisan Budget Act, it addresses the Department's five challenges. It does so by balancing three major areas: investment in high-end capabilities, the capability and the capacity to meet our current operational demands, and the need to rebuild our readiness after an extended period of war. In the years ahead, we'll need adequate funding levels and predictability to fully recover from over a decade at war and delayed modernization.

#### OHIO-CLASS SUBMARINE

A bow wave of procurement requirements in the future include the *Ohio*-class submarine replacement, continued cyber and space investments, and the long-range strike bomber. It will also be several years before we restore full-spectrum readiness across the services and replenish our stocks of critical precision munitions. And I know the committee has heard from the service chiefs on the specifics of readiness recovery.

In summary, I'm satisfied that the fiscal year 2017 budget puts us on the right trajectory, but it will take your continued support to ensure that the joint force has the depth, the flexibility, the readiness, and the responsiveness that assures our men and women will never face a fair fight.

Once again, thank you for the opportunity to appear before you this morning, and I look forward to your questions.

[The statement follows:]

#### PREPARED STATEMENT OF GENERAL JOSEPH DUNFORD, JR.

##### INTRODUCTION

Chairman Cochran, Ranking Member Durbin, members of this Committee, this posture statement addresses the state of our Nation's armed forces, the current security environment, and the opportunities and challenges that lie ahead.

I am humbled and honored to represent the incredible men and women of our Joint Force. During my first 5 months as Chairman, I have engaged Soldiers, Sailors, Airmen, Marines, and Coast Guardsmen at every level. I am confident, and you should rest assured, that the United States' military is the most capable fighting force in the world. The character, ingenuity, competence, and self-sacrifice of the service members in our All-Volunteer Force remain our single greatest warfighting competitive advantage. I would like to express my gratitude to this distinguished body for its support in ensuring that we maintain the best equipped, trained, and led force in the world.

With the continued support of Congress, the Joint Force will continue to adapt, fight, and win in current operations while simultaneously innovating and investing to decisively win future conflicts. We must never send young Americans into a fair fight. Rather, we must maintain a Joint Force that assures our allies and partners, deters potential adversaries, and has unquestioned overmatch when employed. This requires us to focus on improving joint warfighting capabilities, restoring joint readiness, and developing leaders who will serve as the foundation of the future Joint Force.

#### STRATEGIC ENVIRONMENT

The institutions and structures that have underpinned international order for the last several decades remain largely intact. However, the United States is now confronted with simultaneous challenges from both traditional state actors and non-state actors. The Department has identified five strategic challenges—Russia, China, North Korea, Iran, and Violent Extremist Organizations. Russia, China, Iran, and North Korea present two distinct challenges to our national security. First, they continue to invest in military capabilities that reduce our competitive advantage. Second, these actors are advancing their interests through competition with a military dimension that falls short of traditional armed conflict and the threshold for a traditional military response. This is exemplified by Russian actions in Ukraine, Chinese activities in the South China Sea, and malicious cyber activities. At the same time, non-state actors such as ISIL, al-Qaida, and affiliated organizations are destabilizing parts of the international community, attacking our global interests and threatening the homeland. We must address these challenges to protect the stability of the international order and preserve U.S. influence.

Successful execution of our defense strategy requires that we maintain credible nuclear and conventional capabilities. Our strategic nuclear deterrence force remains safe, secure, and effective but is aging and requires modernization. We are prioritizing renewed long-term investments in early warning sensors; nuclear command, control, and communications; and our triad forces. Similarly, we are making investments to maintain a competitive advantage in our conventional capabilities. However, potential vulnerabilities to our national security extend beyond just conventional or nuclear threats. To preserve the security of the homeland, we must prevent the proliferation and use of WMD and associated technologies. We must also further develop our capabilities in the vital and increasingly contested domains of Cyber and Space.

Future conflict with an adversary or combination of adversaries is taking on an increasingly transregional, multi-domain, and multi-functional nature. This is a marked shift from how past conflicts were fought and will put significant stress on the Department's geographically-based organizational structure and associated command and control (C<sup>2</sup>) architecture. Future conflict will spread quickly across multiple Combatant Command geographic boundaries, functions, and domains. We must anticipate the need to respond to simultaneous challenges in the ground, air, space, cyberspace, and maritime domains. It is this type of operating environment that informed our investments in the President's Budget 2017 and our efforts to more effectively integrate joint capabilities.

As the Joint Force acts to mitigate threats to U.S. interests against the backdrop of the Department's five strategic challenges, we do so in the context of a fiscal environment that hampers our ability to plan and allocate resources most effectively. Despite partial relief by Congress from sequester-level funding since fiscal year 2012, the Department is absorbing approximately \$800 billion in cuts compared to the 10-year projection in the fiscal year 2012 Budget, and faces an additional \$100 billion of sequestration-induced risk through fiscal year 2021. Absorbing cuts of this magnitude has resulted in underinvestment in critical capabilities. President's Budget 2017 takes necessary steps toward balancing the needs of meeting current and future operational requirements, investing in capability development, and keeping faith with service members and their families. We must continue to work together to develop future budgets which provide the investment levels and flexibility needed to address our national security interests.

#### CURRENT ASSESSMENT OF THE JOINT FORCE

As directed in the 2014 Quadrennial Defense Review, the U.S. Armed Forces must be able to simultaneously defend the homeland while waging a global counterterrorism campaign, deter potential adversaries, and assure allies. If deterrence fails, the U.S. military must be capable of defeating one adversary while denying a second adversary's objectives in a different region. Due to shortfalls in capacity and critical capabilities such as ISR and long-range strike, as well as increased timelines for

force movements, the Joint Force will be challenged to respond to a major contingency while simultaneously defending the homeland and continuing the counter-VEO mission. Capability and capacity shortfalls would be particularly acute if the force were called to respond to a second contingency on an overlapping timeline. Moreover, some allies and partners are less capable or willing to fill these gaps than in the past.

Today, Combatant Command assigned missions can be accomplished, but all Combatant Commanders cite resource limitations and capability shortfalls that may increase casualties, lengthen response timelines, and extend the duration of a future conflict. There are also shortfalls in our ability to conduct day to day shaping activities that serve to mitigate the risk of conflict and properly posture the force in event of conflict. These shortfalls include the number of ready response units in the Services' non-deployed force, theater ISR assets, Command and Control, intelligence, cyber operations, precision munitions, missile defense, and logistics.

Recovery of full-spectrum Joint Force readiness remains fragile. The adverse impact of budget reductions over the past several years combined with a persistently robust global demand for forces and capabilities continues to impede our ability to rebuild readiness after more than a decade of contingency operations. Regaining full-spectrum capabilities and appropriate levels of material readiness will take time, resources, and a healthy industrial base.

The Joint Force has maintained competitive advantage in technology for several decades. However, this advantage has been eroded by our adversaries' efforts to improve their war-fighting capabilities and avoid or counter U.S. military technological strengths. Moreover, the rapid pace of technological advances combined with the wide proliferation of new technologies has allowed our adversaries to more easily acquire advanced capabilities. This is highlighted by the increasing ease of access to cyber and space technologies and expertise in the commercial and private sectors. Adversaries are able to diminish the long-term advantage of key U.S. capabilities by leveraging access to commercial technology, targeting our defense industrial base with cyber espionage and sabotage, and developing capabilities within tighter development cycles than our bureaucratic acquisition cycle allows.

#### CAPABILITY TRENDS FOR KEY CHALLENGES

The Department's five strategic challenges were the primary driver behind our risk assessment. For a classified analysis of these challenges and our response options, please review my Chairman's Risk Assessment and the Secretary's Risk Mitigation Plan.

*Russia.*—Russia's actions threaten NATO cohesion and undermine the international order. Russia's military modernization and doctrine development aim to neutralize traditional U.S. competitive advantages and limit strategic options.

The Russian military presents the greatest challenge to U.S. interests. Russia is also the only actor aside from the United States that can project strategic power simultaneously in multiple regions. To assure our national security and reinforce international order, the United States and our NATO allies must improve our military capability, capacity, and responsiveness to deter a resurgent Russia. While Russia has not signaled the intent to directly attack the United States or our NATO allies, Russia's National Security Strategy identifies the United States and the expansion of NATO as threatening their national security. Moscow's strategic nuclear capabilities represent a potential existential threat to the United States, and their non-strategic nuclear capabilities threaten our allies and U.S. forward-based forces in Europe and Asia. Russia has also shown a willingness to use competition short of traditional military conflict—such as in Ukraine—to pursue its strategic goals.

In recent years, Russia has undertaken a long-term strategic armaments program designed to develop military capabilities and systems that erode our competitive advantage across the spectrum of conflict. Russia has modernized its strategic nuclear forces, enhanced their force projection and anti-access/area denial (A2/AD) capabilities, and significantly increased its proficiency in executing hybrid operations. Operations in Ukraine and Syria serve to demonstrate these new capabilities and increase their proficiency.

In the Cyber domain, Russia is a peer competitor of the United States and has demonstrated a willingness to exploit cyber to achieve its objectives. We suspect Russia has conducted a range of cyber operations against government, academic, and private networks. Russian cyber capability could potentially cause considerable damage to critical network equipment and national infrastructure throughout the United States and Europe. In the near to medium term, Russia is also modernizing its counter-space capabilities to defeat a wide range of U.S. space-based capabilities while seeking to secure Russian freedom of action.

In summary, Russia is improving its high-end warfighting capabilities and closing the gap on our competitive military advantages. Since 2008, Russia has demonstrated increasingly sophisticated military capabilities and doctrine. In these operations, Russia has broadly operated across the spectrum of conflict to include information operations and cyber warfare. Russia is the only actor that can project strategic power in multiple regions to threaten U.S. national interests and coerce U.S. and allied decision-makers.

President's Budget 2017 addresses Russia's aggressive policies and military modernization through investment in a number of high-end capabilities. The budget request also quadruples funding for the European Reassurance Initiative (ERI) to \$3.4 billion in fiscal year 2017 to reassure our NATO allies and deter Russian aggression.

*China.*—China's rapid military modernization and expanding presence in Asia and beyond increase the probability for misunderstanding and miscalculation.

China is engaged in a sustained military modernization effort that is reducing our competitive military advantage against it. This effort is coupled with an ambitious foreign military-to-military engagement program that aims to acquire advanced tactics, training, and procedures from other developed militaries. China is also seeking to improve the joint capability of its armed forces to project power-enhancing its ability to fight and win a high-intensity regional conflict. Critical to Chinese efforts is the development of capabilities that specifically counter U.S. operational strength.

Over the course of the last year, China's military operations have expanded in size, complexity, duration, and geographic location. Additionally, China continues to make large-scale investments in advanced A2/AD capabilities, including short-, medium-, and intermediate-range ballistic and cruise missiles employing countermeasures to deny U.S. missile defense systems. China is also investing in land attack and anti-ship cruise missiles, counter-space weapons, cyber, improved capabilities in nuclear deterrence and long-range conventional strike, advanced fighter aircraft, integrated air defenses, undersea warfare, and command and control capabilities. China's nuclear-capable missile forces pose a military risk to the U.S. homeland. China's land-based missile forces continue to expand, increasing the number of nuclear warheads capable of striking the United States as well as bases in the Pacific theater.

The aggregate of China's expanding, well-resourced, and well-trained cyberspace forces represent a threat to the United States. China's use of computer network attacks in a conflict with the United States or our allies and partners could seriously limit access to cyberspace and further degrade deployment and sustainment of forces. In the Space domain, China continues to enhance its ability to support terrestrial operations. By pursuing a diverse and capable range of offensive space control and counter-space capabilities, China is also working to diminish U.S. space dominance.

In summary, China's rapid military modernization is quickly closing the gap with U.S. military capabilities and is eroding the Joint Force's competitive military advantages. China's military forces can constrain U.S. military operations in the Western Pacific and hold key U.S. infrastructure and facilities at risk. Its strategic capabilities are improving and present an increasing risk to the U.S. homeland and our allies.

President's Budget 2017 is supportive of our commitment to the Asia-Pacific rebalance. It invests in high-end capabilities, particularly those needed to maintain undersea dominance and to counter A2/AD capabilities. The budget request also funds the buildup of Guam as a strategic hub, initiation of P-8 maritime patrol aircraft rotations in Singapore, implementation of rotational initiatives in Northern Australia, and positioning F-35 fighters in Japan in 2017.

*North Korea.*—North Korea's nuclear weapons and ballistic missile programs, increasing asymmetric capabilities, and willingness to use malicious cyber tools threaten the security of the homeland. These capabilities, alongside conventional forces, also threaten our allies in the region.

North Korea has an opaque and confrontational national leadership, the fourth largest army in the world, and increasing nuclear and ballistic missile capabilities. The regime represents an immediate threat to U.S. allies in the region and an increasing threat to U.S. territories and the homeland.

The United States maintains a competitive military advantage against the relatively low-technology North Korean military. However, in the event of a conflict on the peninsula, North Korea may be able to seize the initiative and rapidly escalate hostilities utilizing special operations forces, mass, and long-range fires. Risk of large numbers of civilian and military casualties remains high.

North Korea continues to develop its offensive and intelligence-collection capabilities aimed at exploiting U.S. and allies' cyber domains. North Korea's current cyber

capabilities remain modest and pose the greatest threat to poorly defended networks. We expect North Korea to continue investing in more capable cyber tools to develop asymmetric options which can be effective against more sophisticated networks.

In summary, North Korea's ballistic missile and nuclear developments, willingness to conduct malicious cyber activities, and potential to seize the initiative in a conflict on the peninsula pose risks to the security of the United States and our allies.

As previously noted, President's Budget 2017 is supportive of our commitment to the Asia-Pacific rebalance and accounts for the challenges posed by North Korea. The budget provides additional funds for conventional munitions and continues investment in missile defense.

*Iran.*—Continued expansion of Iranian malign influence in the Middle East threatens the stability and security of key regional partners. Iran is increasingly capable of restricting U.S. military freedom of action in the region.

Iran is improving the quality and quantity of select conventional military capabilities. Specifically, Iran continues to leverage its position on the Strait of Hormuz to pursue an area denial strategy with increasing capability and capacity of ISR, anti-ship cruise missiles, fast attack craft, fast inshore attack craft, submarines, and mines. Iran augments its maritime patrol capacity with unmanned aerial reconnaissance systems and is developing an armed unmanned aerial system capability. Improvements in the quality, quantity, and lethality of Iran's military capabilities threaten both U.S. interests and freedom of action within the region.

To date, Iran has not demonstrated the capability to strike the continental United States with a ballistic missile. However, Iran has made significant strides in its missile development programs since 2009, when it successfully launched its first satellite. In 2010, Iran unveiled a new space launch vehicle that—if configured as a ballistic missile—would be capable of reaching the United States. In the Cyber domain, Iran's capabilities present a limited but increasing threat to the United States. Iran has demonstrated some degree of success in targeting vulnerable critical infrastructure networks.

In summary, Iran and its malign activities present the greatest threats to U.S. interests in the Middle East and North Africa. Tehran has demonstrated the ability to project influence across the region and presents an asymmetric threat to the United States and its regional partners. Iran's conventional military modernization is not likely to compete with U.S. capability, but its ballistic missile force can hold key regional U.S. infrastructure at risk.

President's Budget 2017 addresses Iran's malign activities through investments in capabilities that improve our posture, enhance regional partnerships, and provide options in the event of a contingency. Specifically, the budget funds additional capabilities for power projection, sea control, and regional missile defense.

*Violent Extremist Organizations.*—VEOs threaten the stability and security of key regional partners and many of our closest allies. Their ability to inspire attacks threatens the security of U.S. citizens and interests at home and abroad.

VEOs are distinct from the other four threats, representing both an immediate and long-term risk. Counter-VEO operations will require continued focus and resources even if the Joint Force is called on to respond to a contingency involving Russia, China, Iran, or North Korea. While VEOs do not pose an existential threat to the United States, they continue to increase their abilities to inflict harm upon our vital interests. Several of our partner nations—from South Asia to the Middle East and Africa—are battling VEOs that have established territorial control and are directly challenging existing governments. U.S. values and the rules-based international order are also threatened by VEOs. Additionally, VEO-driven conflicts have generated mass migration and significant flows of foreign fighters to and from conflict zones, which poses risk to the United States and our allies and partners in the Middle East, North Africa, and Europe.

The President's Budget 2017 submission funds our ongoing counter-VEO operations. President's Budget 2017 OCO funding will help establish counterterrorism platforms in South Asia (Afghanistan), the Middle East (Levant), East Africa (Djibouti), and an enhanced presence in North/West Africa. These platforms will provide sustainable, flexible, and scalable nodes from which to conduct planning and synchronize operations within the U.S. Government and with allies and partners.

#### CROSSCUTTING SOURCES OF MILITARY RISK

The Joint Force faces a variety of crosscutting sources of military risk: gaps and shortfalls that impact our ability to accomplish our missions and objectives, both in today's operations and in tomorrow's potential conflicts.

### *Multiple, Overlapping Contingencies*

In accordance with the 2014 Quadrennial Defense Review, the U.S. Armed Forces must be capable of simultaneously defending the homeland while waging a global counterterrorism campaign, deterring potential aggressors, and assuring allies. If deterrence fails, U.S. forces must also be capable of defeating an adversary and denying the objectives of—or imposing unacceptable costs on—a second aggressor in another region. The Joint Force will be stressed to execute a major contingency operation on desired plan timelines with available assets, while simultaneously defending the homeland and continuing the counterterrorism fight against VEOs. Response to aggression by another adversary at the same time would be further limited due to capacity shortfalls, force movement timelines, and the dedication of enabling forces and capabilities elsewhere.

### *Intelligence, Surveillance, and Reconnaissance*

A lack of theater ISR surge capacity diminishes the Joint Force's responsiveness and flexibility to support emergent crisis or contingency. Current theater ISR assets and associated analytic support capacity remains short of Combatant Commanders' increasing requirements.

### *High Demand—Low Density Capabilities*

HD/LD capability and capacity shortfalls affect our ability to achieve assigned missions. We continue to operate systems in several critical mission areas and deploy personnel with specific specialty skills at high rates, resulting in minimal to no surge capacity in those areas. Similar to ISR, this negatively impacts the Joint Force's responsiveness and flexibility to support emergent requirements. HD/LD capability shortfalls that pose significant military risk include: missile defense systems, naval expeditionary forces, personnel recovery assets, airborne command and control systems, explosive ordnance disposal assets, air superiority and global precision strike units, and cyber mission forces.

### *Munitions*

Key precision guided munitions shortfalls are exacerbated by ongoing operations and may impact potential contingency response. Additionally, our current global inventories are insufficient for theater missile defense (TMD), standoff, and air-to-air munitions needs.

### *Logistics*

We are seeing increasing risk associated with the Joint Logistics Enterprise's ready and available capacity. Critical logistics enablers lack capacity and responsiveness: 79 percent of such units report reduced readiness levels which affects mission accomplishment flexibility and increases vulnerability. A majority of these elements are motor transportation, engineer, and cargo handling units necessary to support the deployment and sustainment of combat elements. Of these units, the vast majority reside in the Reserve Component (RC). As such, any contingency that requires responses on a timeline faster than that designated for RC mobilization will face risk from the lengthened timelines for combat forces and their sustainers to arrive in theater.

## PRESIDENT'S BUDGET 2017 SUMMARY

President's Budget 2017 addresses the Department's five strategic challenges—a resurgent Russia, a rising China, North Korea, Iran, and VEOs—by balancing the demands of readiness, capacity, and capability within the resources provided by the 2015 Bipartisan Budget Agreement. The total fiscal year 2017 topline, which is approximately \$17 billion below what we planned in President's Budget 2016, required us to defer modernization in favor of near-term readiness and force structure. These reductions and delays in modernization will exacerbate the procurement bow wave we confront at the end of the Future Year Defense Program (FYDP) and compound risk to the overall balance of the Joint Force.

President's Budget 2017 also contains fiscal risk. The budget assumes higher toplines in fiscal year 2018–2021, continued favorable economic factors, and future efficiencies. We also continue to depend on OCO funding for ongoing contingency operations and Joint Force readiness recovery.

### *Key Capability Investments*

Given a constrained topline, President's Budget 2017 prioritizes investments to modernize the future Joint Force while balancing capacity and readiness.

### *TACAIR*

The Air Force accepts risk in the “air” domain in order to invest in nuclear enterprise, space, and cyber priorities. Cuts in fifth generation fighter aircraft procurement create risk in the mid-2020s, which will be mitigated by 4th generation fighter aircraft enhancements. President’s Budget 2017 funds 54 Air Force combat-coded fighter squadrons in the base budget and one squadron supporting the European Reassurance Initiative in the OCO budget (a total of six more squadrons than the President’s Budget 2016 plan for fiscal year 2017). The Department of the Navy will procure additional F-35C (+10), F-35B (+3), and F/A-18E/F (+14) over President’s Budget 2016 levels. The Department of the Navy will also complete its planned buy of 109 P-8A by fiscal year 2019.

### *Cyber*

State actors will remain the most capable threats to computer network operations. Non-state actors—VEOs, ideological hackers, and cybercriminals—have demonstrated high-level network intrusion skills against the U.S. Government and private entities and will continue to develop sophisticated tools to achieve their objectives. Developing and growing the Cyber mission force will require a long-term concerted effort. President’s Budget 2017 invests in both quantity and quality of cyber capabilities. It funds \$6.78 in fiscal year 2017 (a 13 percent increase) and approximately \$34 billion across the FYDP in cyber posture and capabilities—including investments in strategic cyber deterrence, cyber security, and offensive cyber.

### *Space Acquisition*

President’s Budget 2017 makes significant investment in space posture and capability. We are funding \$7 billion in fiscal year 2017 and approximately \$38 billion across the FYDP, including space situational awareness, space launch capabilities, and command & control of critical space architecture. Other budget items will harden follow-on communications and warning satellites, accelerate GPS replacement to assure targeting accuracy and ability to resist jamming, and add security features to prevent exploitation and increase overall system resilience, safety, and stability.

### *Airborne ISR*

There is an ever-increasing demand for ISR assets to inform and enable our current and future warfighting efforts; President’s Budget 2017 invests in aircraft procurement and ISR support infrastructure. This is an area where we must increase both capacity and capability in the coming years. Continued shortfalls will stress the force to meet current requirements and do not provide any surge capacity to address near-peer challengers or overlapping contingency operations.

The Navy is reducing planned Unmanned Carrier Launched Airborne Surveillance and Strike program capabilities in order to deliver a low-end, permissive-environment tanking and surveillance capability (saving approximately \$680 million across the FYDP). The Air Force projects no significant change from President’s Budget 2016, maintaining its plan for 60 M Q-9 Combat Air Patrols and JSTARs Recapitalization.

### *Power Projection*

President’s Budget 2017 addresses critical power projection capabilities and related assets required to operate in non-permissive environments stemming from adversary advances in A2/AD. President’s Budget 2017 leverages ongoing initiatives to improve survivability of critical assets and enhance offensive strike capability. It invests in hypersonic vehicle concepts, flight demonstrations, infrastructure, and advanced conventional warheads. It also funds improvement in critical base and missile defenses through expedient shelters and multispectral camouflage. Finally, it increases the survivability in the undersea domain by investing in Maritime Strike Tactical Tomahawk capability, Unmanned Undersea Vehicle capabilities, additional Virginia Payload Modules, and Acoustic Superiority Program upgrades on OHIO- and VIRGINIA-class submarines.

### *Shipbuilding*

Joint Force shipbuilding investment is on track to meet fleet goals in President’s Budget 2017. The Navy continues to grow the size of the fleet toward the goal of 308 ships to meet warfighting and posture requirements. President’s Budget 2017 continues procurement of 10 DDG-51 Flight III destroyers across the FYDP but reduces planned Littoral Combat Ship procurement from 52 to 40. It also invests in undersea capabilities as described previously.

### *Munitions*

President's Budget 2017 invests in rebuilding depleted stocks of precision guided munitions and in future critical munitions capabilities and enhancements. Specifically, the budget includes \$1.8 billion for precision guided munition replenishment due to usage during ongoing operations. Looking toward the future, the Navy is maximizing production of SM-6 missiles while maintaining required levels of other advanced munitions. It is also beginning development of follow-on torpedoes and modernizing Tactical Tomahawk to enhance maritime strike capability. The Air Force will continue with last year's plan to convert unguided bombs into all-weather smart weapons. The Marine Corps and the Army are funding RDT&E to support fiscal year 2020 development of area effects munitions compliant with the Departmental cluster munitions policy. Finally, the Army plan procures an additional 80 Army Tactical Missile System (ATACMS) Service Life Extension Program missiles, which bridges the capacity gap until the Army can develop and procure improved capability ATACMS.

### *Nuclear Enterprise Sustainment and Recapitalization*

Because nuclear deterrence is the highest priority of the Department of Defense, President's Budget 2017 enhances investment in all three legs of our aging nuclear triad. Within the nuclear enterprise, the budget funds \$19 billion in fiscal year 2017 and approximately \$108 billion across the FYDP, adding \$9.8 billion (an increase of 10 percent) to sustain and recapitalize the nuclear triad and strategic command, control, and communication systems. It invests in legacy strategic bomber modernization, ground-based strategic deterrence, incremental funding of the first ship of the OHIO-class replacement program, long-range strike bomber, long-range standoff cruise missile, and the security helicopter replacement.

### *Counterterrorism*

The fiscal year 2017 budget request includes approximately \$13 billion to support counterterrorism efforts in South Asia (Afghanistan), the Middle East (the Levant), East Africa (Djibouti), and an enhanced presence in North/West Africa. These capabilities are essential to implementing a new framework to counter terrorism, particularly against ISIL, that more effectively synchronizes counter-VEO efforts within the Department and across the government.

### *People and Institutions*

#### *Talent and Leadership*

Beyond budgets and technology, the All-Volunteer Force remains our greatest asset and true warfighting competitive advantage. The future operating environment will place new demands on leaders at all levels. Our leaders must have the training, education, and experience to meet those demands. We are undertaking a series of significant changes to the personnel systems which have previously underpinned the Joint Force: military pay and compensation modifications, retirement reforms, talent management initiatives, and diversity integration efforts. These changes aim to make the Joint Force an inclusive, more agile, and stronger force by leveraging the talents of all qualified citizens to meet the challenges of the future. The Services are responsible to assess and execute these changes; not all will be easy. However, we are committed to preserving standards, unit readiness, and cohesion, and we will steadfastly adhere to our principles of dignity and respect for all service members over the continuum of their service and beyond.

#### *End strength*

Our end strength is driven by strategy but is also constrained by current fiscal realities. President's Budget 2017 projects the force end strength consistent with the 2014 QDR forecasts. However, the emergence of ISIL and Russian revanchism has changed the strategic environment since the QDR was published. Force availability shortfalls hamper our ability to rapidly respond to multiple, overlapping contingencies. End strength reductions below the current plan must be carefully weighed against the end states sought by the Department.

Active Duty Service end strengths in the proposed President's Budget 2017 remain relatively constant across the FYDP (less than 0.7 percent overall reduction by fiscal year 2021). The Active Component will be reduced by 9,800 personnel across the Services by fiscal year 2021, with most of that reduction coming in the Army by fiscal year 2018. Reserve Component end strength will see negligible decreases. Specifically, the Army will maintain end strength and capacity to meet operational requirements, and build a rotationally focused and surge-ready 980K Total Army (450K Active Component), consistent with the 2014 QDR. Both the Navy and Marine Corps will maintain Active Component end strength numbers at

323K and 182K, respectively. The Air Force will maintain Active Component end strength at 317K.

#### CONCLUSION

President's Budget 2017 reflects difficult choices made in the context of today's security challenges and fiscal constraints. Our budget submission balances investment in the high-end capabilities needed to counter major power competitors, the capacity to meet current operational demands and potential contingencies, and the need to rebuild readiness after an extended period of war. However, to accommodate a constrained topline, President's Budget 2017 defers near-term modernization which will only exacerbate a coming wave of strategic recapitalization and other procurement requirements. More broadly, the cumulative effect of topline reductions over the past several years has limited the flexibility and resiliency of the Joint Force, and looking ahead I am concerned that the demand for future capabilities and capacity will outpace the resources available, forcing even more difficult decisions to match strategy and resources. I am grateful to Congress for your continued support, and I look forward to working with you to ensure the United States maintains the most capable fighting force in the world—and to ensure we never have to send American men and women into a fair fight.

Senator COCHRAN. Thank you, General. I appreciate your comments and your leadership.

I'm going to call on the Senator from Alabama, Mr. Shelby.

Senator SHELBY. Thank you, Mr. Chairman.

Mr. Secretary, you alluded to a number of these things in your opening statement, but correct me if some of my observations might be off. We have a resurgent Russia under Putin, who seems to be very venturesome, to say the least, and nobody to rein him in at the moment other than himself and maybe dangerous to the world. We have a China that thinks long range, that we do a lot of trade with, but is determined to modernize their nuclear weapons system—they're doing it; it costs a lot of money, as you well know—and perhaps to build a blue-water navy, which takes years we know, and at the same time, looking forward to challenging us in some of the busiest trade routes in the world.

Then we have Iran coming on. Perhaps maybe the administration is looking for some kind détente with them or something, I don't know, but I see that as a real danger.

Then you've got North Korea, which you alluded to, that the only people I know that can rein him in would be China, if they chose to.

Then we've got the Middle East, and perhaps a de facto dismemberment of some areas and things going on.

Are we fighting in the Middle East a war of a sense of containment? You know, are we fighting a war to win? And what is the goal there?

But first let's talk about the macro stuff. Is that—

Secretary CARTER. Senator, yeah, I think you characterized things quite well. I don't believe that the nuclear agreement with Iran constitutes a grand bargain of any kind or will lead to your word "détente" of any kind, or at least we're not anticipating that.

Senator SHELBY. What do you think it does constitute?

Secretary CARTER. Well, it takes off the table one danger to us, but we are standing unchanged in our posture there because Iran—the possibility of Iranian aggression, malign activities in the region, our friends and allies, that's unchanged.

## MIDDLE EAST STRATEGY

And that gets to the second part of your question, which is about our strategy in the Middle East in general. And I think that the Middle East is a very complex and disturbed place, but our eyes are firmly on American interests. Those are clear. The place may be turbulent, but our interests are clear. One of those interests is, and of course, the paramount one is, defending our own people from terrorism arising there. That is why we're intent upon, determined, and I'm confident we will, defeat ISIL in Iraq and Syria. But as you also indicate, there must follow that some putting back together of Iraq and Syria as places that can keep their own order. That's a big challenge——

Senator SHELBY. It is.

Secretary CARTER. [continuing]. But it's one that we work on with Prime Minister Abadi. I just saw him last week. The Chairman was in Iraq. Syria is a much more complicated situation, but Secretary Kerry is working on the diplomacy associated with that. But I think we start with, not the complications of a complicated region, which I don't expect to go away anytime soon, but with American national interests and our need to defend them.

Senator SHELBY. Mr. Secretary, bring us up to date on Russia, from your perspective. I know this is an unclassified hearing here, but are you concerned about Russia at times?

Secretary CARTER. Yes. Yes. And I think you characterized it quite well. And our response to that, and our posture on that, is a strong one, a balanced one, strong in the sense that we are making investments, I detailed some of those, our budget details more, to make sure that we keep our military edge there.

Senator SHELBY. Number one.

Secretary CARTER. Yes. We are also quadrupling the European Reassurance Initiative, which allows us to do more with our NATO partners there. We're challenging our NATO (North Atlantic Treaty Organization) partners and working with them to develop what I've called a new playbook for NATO, a playbook that anticipates the kind of aggression or undermining, "little green men" type undermining, that will be different from the old Cold War situation, but still needs to be countered. So we have a lot of concerns about Russia. We work with them where we can, but where we can't, we need to stand strong.

Senator SHELBY. We live in a tough world, don't we?

Secretary CARTER. We do.

## RD-180 ENGINE

Senator SHELBY. Sir, just to digress just a minute. The RD-180 engines, we've talked about this, we've worked with you before on that——

Secretary CARTER. Yes.

Senator SHELBY [continuing]. Some of us have here. How important is it, one, for us to build the American engine, which we all want to do, you know, down the road, not to rely on anybody except ourselves? And how important is it that we have those engines, a number of them, for a few years, we do this for our national security to keep from having——

Secretary CARTER. Well, our budget does propose that we continue to buy RD-180s for a time, and I'll explain why. Down the road, we want to have two or more competitive launch service providers that are purely American, that's where we would like to get to. In the meantime, we have to launch our national security payloads, and there are two ways we can do that: we can hold our noses, buy RD-180s, until that situation is created, or—and fly Atlases with RD-180s; the alternative is to fly our payloads on Delta, which is technically feasible, but much more expensive. And so that's the choice, and we have chosen the choice of going Atlas, recognizing the distasteful fact that that necessitates purchase of up to 18 more RD-180 engines, the alternative being Delta, but the alternative being much more expensive. It's that simple.

Senator SHELBY. Thank you very much.

Senator COCHRAN. The Chair now recognizes Senator Steve Daines, the distinguished Senator from Montana.

Senator DAINES. Thank you, Mr. Chairman.

Thank you, Secretary Carter and General Dunford, for being here this morning.

Last month, the President held a nuclear summit here in Washington speaking about the need for our allies to protect their nuclear weapons, and all the same time while here in America in our backyards we're not meeting our own security standards. It's been made public now that our Vietnam era helicopters don't meet the requirements to provide adequate security to the nuclear silos in Montana as well as Wyoming and North Dakota. The Air Force has known about this since before 9/11.

Given the increased risk for terrorism here at home, I'm concerned on how low the priority list this seems to be. The Air Force still has not decided how they're going to replace these helicopters, but either direction they go is going to take over a year, and I think that's unacceptable.

#### INTERCONTINENTAL BALLISTIC MISSILES

Secretary Carter, what steps has the Department taken to move this timeline forward? And when can we expect to see helicopters that actually meet the security requirements to properly defend our ICBMs (intercontinental ballistic missile)?

Secretary CARTER. Thank you, Senator. First of all, let me associate myself with your basic premise, which is we need a safe, secure, and reliable nuclear deterrent as far into the future as I can see. And the ICBMs are a critical part of that, and for their safety, a replacement of the UH-1Ns, which are now the helicopters, very old helicopters, that convey the security forces around the silo fields, as you very well know, definitely need to be replaced. They need that to be done urgently. I'm monitoring that closely, the acquisition strategy that the Air Force and the Under Secretary for Acquisition, Technology, and Logistics are putting together to do that. There are a couple of alternatives there. They're moving forward with that, and I think perhaps the best thing I can do is offer you a briefing on their acquisition strategy. But they are under direction to go quickly in view of precisely the fact that you cite and that Admiral Haney has certainly brought to my attention, also to the Chairman's attention, so I'm very aware of the issue.

Senator DAINES. I appreciate it. And we have a very porous northern border there, it's big country out there in Montana and the Dakotas and so forth, so I appreciate your support, and I look forward to a briefing on that, Secretary Carter, as well.

I wondered, has the Department considered activating the National Guard or utilizing other resources that might secure the weapons until the Air Force purchases a replacement helicopter that meets the requirements?

Secretary CARTER. Senator, that may be a very good idea. I have not heard that in our discussions. I'll take that back and add it. I should say that the Guard in general around the country provides a critical augmentation for us in NORTHCOM and also STRATCOM. So it is part of the planning in both of those commands to make use of the reserve component, including the Guard. And, of course, the Guard has proven very valuable to us overseas over the last 15 years.

Senator DAINES. All right. Thank you, Secretary Carter.

I want to talk a little about cyber attacks potential threat to our nuclear assets. The fact that the Air Force can't physically secure our nuclear weapons makes me concerned that they can't protect them from one of our fastest growing threats that our Nation faces, and that's the cyber attack threat.

I've been in the nuclear launch centers there in Montana. In fact, they look like something out of a Cold War movie, and that's because they haven't been updated since then. In fact, some of the communications equipment was designed in 1975, critical communications equipment, and I think, if I remember, John Denver's "Thank God I'm A Country Boy" was a top 10 hit that year.

#### CYBER DEFENSE

While I understand some older equipment may actually have its benefits, the risk of cyber attacks is out there. It's especially true with communications equipment because some of our nuclear emergency action messages and retargeting messages are traveling over telephone wires. I think we both can agree there is some risk in that.

Secretary Carter, what steps is the Department taking this year to increase the cyber defense of our nuclear command, control, and communications systems?

Secretary CARTER. Well, Senator, I'm highly aware of the issue you raised. My very first job in the Department of Defense in 1980 was at its center, Nuclear Command and Control, and a lot of those systems haven't changed since then. The only good thing I'll say about that is that because they're not heavily computerized, they're not easy to get into with a cyber attack either. But we do need to modernize them, as you say, and we're investing a lot of management attention, I think of the Chairman and myself, and also resources in doing so.

I prefer going into detail with that in the form of a classified briefing to you on the side, but your basic point, which is that as we modernize the command and control system, it inevitably includes modern information technology in it, it will, of necessity, have cyber vulnerabilities. And CYBERCOM's first job is to protect our own networks, and Admiral Rogers, our CYBERCOM com-

mander, knows that nuclear command and control is our most important network; therefore, the most important part of the most important part of his job is to secure the nuclear command and control systems from cyber attack, and the Chairman knows that, and we work on that.

And perhaps you would like to add something, Chairman?

General DUNFORD. No, sir, but I think you'll see that, when you say, "What are we doing?" I think you'll see it in two places in the budget. You know, I mentioned the nuclear command and control up front; we need to modernize that. And then there's about \$6.7 billion in the budget this year invested in cyber specifically, and I think both of those areas are going to improve the challenge that you talked about.

Senator DAINES. All right. Thank you, General Dunford.

Senator COCHRAN. The time of the Senator has expired.

Senator DAINES. I'm the son of a Marine, General Dunford, so I got raised right. Thank you.

Senator COCHRAN. The distinguished Senator from Missouri, Mr. Blunt.

#### MILITARY FAMILY STABILITY

Senator BLUNT. Thank you, Chairman. I want to talk to both of you, both General Dunford and the Secretary, about a bill that I introduced last year with Senator Gillibrand, from New York, called the Military Family Stability Act. I think it's very much in line with the initiative that you're making, the Force of the Future initiative, where people could even stay at an assignment longer if that was something that worked better for education or a spouse's professional career.

What we were proposing, Secretary and General, what we were proposing, and are proposing, is that there be another option, which would be that people, the family, could either stay a little longer or could move a little earlier. We'd like some help that I think we're not getting from the Department to talk about how we could make this work in a way that would minimize the cost but still maximize the opportunity.

And, General, I know that in your great career, you have to have seen a number of times when families were needlessly frustrated because the school year was a month before it started or a month after it was over or—we had a media opportunity on this and had several spouses come in, one being transferred from Florida to—or from Hawaii, rather, to Fort Leonard Wood, so she got a teaching contract at the University of Missouri Science and Technology. She got in a Ph.D. program at Saint Louis University, but then the move didn't occur in June, and then the move didn't occur in July, and she went ahead and had to move. Her husband would have been more than willing to go to available quarters on the base and let her move become the move for the family, and that just wasn't allowed. I would think in what you're trying to do to keep these highly trained people in the military, a greater level of flexibility.

So I want you to respond to that, but also what I want you to do is help us figure out if it keeps costs down to limit this to two times in a career or 60 days instead of 6 months. We proposed up to 6 months thinking seldom would a family use this, seldom would

they use it for 6 months, but when we talked to people in your office, it's, "Well, we want to multiply this by 6 months for every family that ever possibly moves and assume they'll all take advantage of it." It's just not reasonable, and I think it's what you're trying to do. But we could use more flexibility when someone needs to move, wants to move, but just a month or two would make a big difference for their family.

So if you would just both respond to that, that's my question.

Secretary CARTER. I'll start off, and then General Dunford and I have talked about this. First let me thank you and Senator Gillibrand for identifying this issue. I couldn't agree with you more. We are a married force. More than 70 percent of our officers are married. More than half of our enlisted are married. And so we try to do everything we can consistent with the profession of arms and readiness and cost to make their military service and their family life compatible. That's why we extended maternity leave and paternity leave, but only as much as we could consistent with costs and readiness, and have taken other steps. So I appreciate that. And to your question, we would look forward to working with you on that.

I think, as I understand the proposal, and as we worked on the proposal, cost is—I understand the intent, agree with the intent—managing the cost is the issue, so we're happy to work with you to that end.

And with that, let me see what the Chairman would like to add.

General DUNFORD. Senator, I am aware of the challenge that you outlined, and like Secretary Carter, I very much appreciate your focus on military families. And I think without hyperbole we could say we would never have the quality all-volunteer force we have today, we would never be able to have done what we've done over the past 14 years in particular, were we not to have strong families supporting our men and women in uniform.

I've also looked at it, and one, I'll commit to working with you and your staff to try to make whatever adjustments are necessary to move that through, and I have, over my career, seen countless individuals who have had to make those difficult choices. If my wife were here, I would tell you exactly how many moves we've made, but I think it's somewhere in the order of 20, and it's actually eight in the last 7 years. Now, our children are all grown, so it's a little easier these days. But I have made the choice on a couple of occasions to precede my family for exactly the reason you outlined, so that they could finish the school year and then join me at my next duty station.

So I conceptually fully support what we've trying to do here and again appreciate your focus on that. And I think that what we want to do is balance the money. What I would say is this, if we had another dollar to spend on families, this might not be priority one, but it would be a priority. In other words, there are a number of things our families have come to us, and that's a big piece of what I think we want to talk about as well as if we had another dollar to spend on families, where would we spend it? And we've spent a lot of time soliciting their input, and we would like to make that part of the dialogue as well.

Senator BLUNT. Thank you both.

Senator COCHRAN. The Chair recognizes the distinguished Senator from Maine, Senator Collins.

#### RUSSIAN CAPABILITY

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

Secretary Carter and General Dunford, Russia, as Senator Shelby has pointed out, has been increasingly aggressive in the Ukraine, in the Baltics, and in the Middle East. The reckless and provocative actions of the Russian military forces deployed in these areas increase the likelihood of a miscalculation that could lead to real problems between Russia and NATO. In addition to the violation of Turkish airspace by a Russian fighter, two Russian fighter jets recently flew dangerously and recklessly close to a U.S. destroyer, the USS *Donald Cook*, which was built in Bath Iron Works, by the way, in recent days. And Russian helicopters shortly thereafter also harassed the destroyer, flying in a simulated attack profile and failing to respond to numerous safety advisories that were sent in both Russian and in English.

I am interested in knowing what conversations you each have had with the Russian Defense Ministry to protest these very dangerous incidents and to reduce the likelihood that Russian military forces operating near our NATO forces will engage in behavior that eventually is going to lead to military engagement or a serious problem and accident.

Secretary CARTER. Thanks, Senator. First let me say I share your concern as we do more and as Russia does more. That's the nature of the tension that has built up in Europe especially over the last couple of years since events in Crimea and Ukraine. It's important that the Russian military conduct itself professionally in the way ours invariably does, and Russia has not always done that.

And to answer your question, I'll start and then the Chairman can do it. We do have a channel both for the Middle East, a military-to-military working channel, to deal with unprofessional conduct and unsafe or potentially dangerous incidents. We have that at sea, we have it in the air. It operates quite well, by the way, in Syria, even though we and Russia don't see the events in Syria at all the same way. We have managed at a professional military level to avoid incidents, and that's worked very well, but it hasn't worked perfectly all around the world. And so we do bring these things up through Russian channels. We have seen more of them in recent years. They are dangerous. It's unprofessional behavior.

Let me just ask if the Chairman wants to add anything about—

Senator COLLINS. General.

General DUNFORD. Senator, I share your concern about both Russian capability development and their behavior of late. The Secretary talked about the specific mechanism we have in place to deal with these kind of issues. I initiated a dialogue in the fall with my counterpart, General Gerasimov. I have now spoken to him three times. And the real reason for trying to establish that relationship is exactly to get at the issue that you raised, and that is to mitigate the risk of miscalculation, which when you look at the nuclear enterprise, the cyber enterprise, the space enterprise, conventional capabilities, and what we increasingly see now, you

know, those activities that really fall short of traditional war, but nonetheless affect our national interest and national interest of our partners, I think the risk of miscalculation arguably is greater than it was in the Cold War because the spectrum of challenges is wider today than it was traditionally narrow to just the nuclear enterprise. So we have agreed not to share in public the nature of our conversations so I can maintain that dialogue over time, but our Nation has conveyed the message that you'd expect us to convey on these particular incidents.

Senator COLLINS. Thank you. I hope it was a very tough message.

Finally, in my 25 seconds that I have remaining, let me just express to Secretary Carter my disappointment in the Department's reversal of its commitment to provide American-made athletic footwear to new recruits. Under the longstanding Berry Amendment, our troops are supposed to be outfitted with clothing and footwear that is made in this country, and that's why I've recently introduced legislation that's been cosponsored by several of my colleagues to require the Department to follow the law.

Thank you, Mr. Chairman.

Senator COCHRAN. Thank you, Senator.

The distinguished Senator from Illinois, Mr. Durbin.

Senator DURBIN. Mr. Chairman, thank you.

And members of the committee, I want to apologize for not being here at the outset. We had a last-minute meeting, caucus meeting, called, and we're doing everything within our power to maintain peace and harmony in the Senate, so it took a few moments.

[Laughter.]

#### MILITARY AIRCRAFT

Senator DURBIN. I was late in attending, and I apologize.

I saw that video, but you both saw it too, as those planes were flying over the *Donald Cook*, right over their ship. And I called the Russian ambassador afterwards and said, "What was this all about?" "Oh," he says, "they were perfectly within their rights to do that." It didn't sound right to me. So give me, if you will, some basic standards here where we can judge that kind of conduct. And also, if you can't put yourself in the place of the commander of that vessel as he sees a foreign aircraft approaching, he has a responsibility too, to the crew on board. What standards would he use in response?

Secretary CARTER. Well, thanks, Vice Chairman, and I'll start out and then ask the Chairman to pitch in, but it is quite clear what standards of professionalism are when one military aircraft is approaching another warship, so it's not plausible that that kind of conduct was normal and professional, and we don't think it was normal and professional, as again, our people conduct themselves normally and professionally in all cases.

With respect to the behavior of our own people, I mean, I think it was very commendable, they didn't act in such a way as to escalate what was an inherently unsafe situation, but there's a real risk there because that ship captain has a responsibility to defend his ship, and an inherent right of self-defense. And so he doesn't have to ask anybody up the chain of command, to me, or anything

when it comes to his inherent right of self-defense, and we expect him to exercise that right in an appropriate way. That creates, in circumstances like this, an inherent danger, and that's why what the Russians were doing is so unprofessional and so concerning to us, but our own people comported themselves, as they always do, in the way you would expect very professionally.

And I'll ask the Chairman if he wants to add anything.

General DUNFORD. Vice Chairman, there is a very fundamental requirement that the Russians had that they didn't observe, and that is, to communicate clearly what their intent is. And what is that so important? It's because the commanding officer of the ship has to make an assessment as to hostile action and hostile intent. And I can tell you the combination of unsafe aviation practices, and there are well-known norms that they should have remained within, combined with failing to properly communicate what they were doing, puts that commanding officer in a situation where he's got to make a judgment call.

And back to Senator Collins' question, that type of behavior absolutely risks—establishes risk and miscalculation and obviously something much broader than just Russian unsafe and irresponsible behavior in and around the USS *Donald Cook*.

Senator DURBIN. Several times I've had this conversation with the Russian ambassador about my concern about the safety of the Baltics, Poland, and many of our allies in that region of the world. He has said—he almost laughs me off, “Why do you keep bringing that up? I don't know why you're so concerned with it.” This incident occurring near that theater is proof positive that we can't take this for granted, and I can assure you, I think you already know, the feelings of these countries is the United States is essential to their future, and our NATO alliance continues to be an important part of it. Now, there's a pretty substantial increase in the European Reassurance Initiative and the request by the administration. And I would like to ask you, if you can, to tell, expand a little bit on, what we think in this coming year needs to be done to make it clear that we're going to stand by our allies in NATO.

#### EUROPEAN REASSURANCE INITIATIVE

Secretary CARTER. Yes. There is a whole host of things, and I'll describe some of the most important ones, and then the Chairman can add whatever I've forgotten. Yes, we have quadrupled our request for the ERI (European Reassurance Initiative), hope we get favorable consideration of that. We think it's necessary. What is it going to pay for? It pays for more presence on a rotational basis of U.S. forces, ground forces, air forces, and naval forces in theater with particular attention to the Baltic States, who are very much exposed on that flank of NATO. It also provides equipment, including heavy equipment, tanks, armored personnel, carriers, artillery, and so forth, both rotationally deployed and in what in the old days we called pre-pos, that's pre-positions, there's another name for them now, I forget, but just a whole host of stuff.

Senator DURBIN. If I can interrupt just one second. Mr. Secretary, my time is up, but I also believe that the buildup in Kaliningrad is something that we should be very mindful of. Most

Americans don't know where Kaliningrad is, but it is smack-dab in the middle of this theater, and it's controlled by the Russians.

Secretary CARTER. Yes.

Senator COCHRAN. The time of the Senator has expired.

The distinguished Senator from South Carolina, Mr. Graham.

Senator GRAHAM. Thank you, Mr. Chairman.

This is an appropriations hearing, so we're trying to figure out, do we have the money, right? If we go back in sequestration next year, if there is not some relief from sequestration, how much damage will that do to our ability to deal with the threats we just discussed?

Secretary CARTER. Well, it does a lot of damage. It does the physical damage, meaning that we can't pay for the things that we have programmed we think are essential—

Senator GRAHAM. Would it seriously compromise the ability to defend this Nation?

Secretary CARTER. It does.

Senator GRAHAM. Do you agree with that, General Dunford?

General DUNFORD. I do, Senator.

Senator GRAHAM. Since 2011, when sequestration first went into effect, we've had the Syrian civil war, the collapse of Libya, the rise of ISIL, holding territory the size of Indiana, Russia's invasion of the Ukraine, annexation of the Crimea, China is building islands over resource-rich waters claimed by others, the Iranians are destabilizing the Mideast, they are in fact in control of four capitals, and North Korea is running wild. Is that a fair assessment of the highlights of what's happened since 2011? I may have left a few out.

Secretary CARTER. I think it's a fair assessment.

Senator GRAHAM. Okay.

Secretary CARTER. It's a dangerous world out there, and that's why we've got to avoid sequestration.

#### DEFENSE SPENDING

Senator GRAHAM. Since 2011, we've cut defense spending by \$150 billion. Does that make any sense to you given the threats I just described?

Secretary CARTER. I described in my opening statement my dismay—

Senator GRAHAM. Do you agree with that, General Dunford?

Secretary CARTER [continuing]. Over the budget over the last 7, 8 years the way it's happened.

Senator GRAHAM. Do you agree with that, General Dunford?

General DUNFORD. I agree it doesn't make any sense, Senator.

Senator GRAHAM. The last time we looked at a strategy-driven budget, not across the board hitting an artificial number, was 2012 when you looked at the strategies we need to deal with the threats we face. We're \$400 billion short of funding that strategy. Would you say now is the time to close that gap?

Secretary CARTER. Two things about that. You've got to—we have done our job, which is to create our budget around our strategy. I described that strategy and the principal threats that it needs to counter. The only thing I would say about 2012 is it's now 2016, and so things are different, and I think you gave some examples of ways in which things are different.

Senator GRAHAM. Yes, if we're—

Secretary CARTER. We're not trying to carry out a strategy that is 4 years old. We're trying to carry out our strategy of today, and where we have a Russia that is more clearly problematic than it was 4 years ago, we have the ISIL campaign to wage. So both in the base and the OCO (Overseas Contingency Operations) you seek reflected the strategy that's appropriate to right now.

Senator GRAHAM. Gotcha. So we were \$400 billion short in 2012, and the threats were less then.

What percentage of DOD's budget is health care?

#### TRICARE COSTS

Secretary CARTER. The healthcare is about \$50 billion out of the 500-odd-ish, so about a little over 10 percent.

Senator GRAHAM. What will it be in 15 years?

Secretary CARTER. Well, it had been growing, as healthcare costs had throughout the country, in a really unsustainable way up until about 2—

Senator GRAHAM. Is it still unsustainable?

Secretary CARTER. No, it has slowed. I don't think that we take credit for that, our own management, in that regard. That's a trend you see around the country as well, but it's very welcomed to us because \$50 billion is a lot of money, we want to take good care of our people and their families, but \$50 billion—

Senator GRAHAM. We haven't had a premium adjustment in TRICARE since 1995 of any significance. Is it time to have a premium adjustment?

Secretary CARTER. We have made some adjustments, and we are proposing more this year.

Senator GRAHAM. What percentage of TRICARE costs are absorbed by the patient population?

Secretary CARTER. Let me ask if Under Secretary McCord knows. I'm sure we can get you that number.

Mr. MCCORD. It has dropped—

Senator GRAHAM. It's 5 percent, I think. So get back with me on that.

[The information follows:]

In 1996, when TRICARE was fully implemented, a working age retiree's family of three who used civilian care contributed on average roughly 27 percent of the total cost of its healthcare. Today that percentage has dropped to less than 9 percent.

Senator GRAHAM. I just got back from Morón, Spain. The Marines are doing a great job, as they do everywhere. Their goal, their mission, there is to provide quick reaction force in case one of our embassies or consulates in that part of the world, in Africa, finds itself in a situation of Benghazi. They fly the V-22. I was told they have two teams that can pre-position and in a couple of days get to where we need to go. They're doing the best they can with what they have. I was also told, due to training problems with our pilots, they're going to have to take six of the V-22s out of the fight to redeploy them back to the United States to have more planes so

that our pilots can meet their training requirements. Have you heard that, General Dunford?

AIRCRAFT MAINTENANCE

General DUNFORD. Senator, I have, and I will tell you that that is characteristic of the aviation enterprise across the board. There is not enough of what we call ready basic aircraft to maintain—

Senator GRAHAM. I want this committee to know if there is a bad situation next year, that the marines cannot get there, that because of budget problems, we're having to take aircraft out of the fight, redeploy them back to the United States, and their capability to deploy is going to be cut in half.

General DUNFORD. Senator, if I could touch on that, we looked at this pretty hard. We can meet the requirement. And I realize that you were just in Morón, but I personally in a previous life, not in this job, in a previous life, spent a lot of time on this issue.

Senator GRAHAM. Are they going to take the six airplanes back?

General DUNFORD. They are, and there are going to be sufficient planes to meet the requirement established by the combatant commander. And that will allow us to—here was the choice we had, we can meet the requirement once or twice with the contingent of aircraft that are on the ground right now, or we can meet the requirement on a sustained basis with an adjusted level of aircraft. Were I to have the perfect world, I would have been able to do both, which is have sufficient aircraft back home in a sufficient deployment-to-dwell rate and thicken the operational forces forward to mitigate risk further.

What I'm confident of is that we have the minimum aircraft to meet the combatant commander's requirement, and no, I'm not happy that we had to reduce the number from 12 to 6, that does reduce the flexibility, it reduces the depth, but it was a decision, I'll be honest with you, I was personally involved in that decision before I changed assignments.

Senator GRAHAM. You had to make that decision.

General DUNFORD. I had to make that decision.

Senator GRAHAM. Because we put you in that spot.

General DUNFORD. We were balancing risk on two sides, and the risk management we did was those six aircraft.

Secretary CARTER. Can I just amplify that? That is a small piece of a major issue. The Marine Corps' principal readiness issue has to do with aircraft maintenance at this—

Senator COCHRAN. The time of the Senator has expired.

The distinguished Senator from Rhode Island, Mr. Reed.

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

Mr. Secretary and General Dunford, thank you. I'll begin with a headline from the New York Times, April 20th, "Russia Bolsters Its Submarine Fleet, and Tensions With U.S. Rise," which raises a question from our perspective of the continued construction and deployment of the *Virginia*-class submarine, particularly VPM, which allows us to make up for the retirement of some converted *Ohio*-class submarines. How critical is that to our ability to confront what is already recognized as a resurgent Russia undersea?

Secretary CARTER. It's critical for Russia and all the other—four, at least, of the five other dangers we face. I should just—want to

amplify what you said, and what I said in my statement. Undersea dominance is an area of clear American dominance. We want to keep that edge. That's why, as you say, we're doing the Virginia Payload Module, the *Virginia* submarines themselves, unmanned undersea—you know about things that we're doing that we can't really talk about here, but keeping that undersea dominance is critical.

Senator REED. And that requires adequate robust funding, not just in this year, but going forward.

Secretary CARTER. Yes.

#### SUBMARINES

Senator REED. In fact, operationally, we dropped I think to 48 submarines at some point, which is much lower than the COCOMs—

Secretary CARTER. SSNs, yes.

Senator REED. In fact, every COCOM that I've spoken to, and also the CNOs, is that they cannot meet all the demands for submarines. Is that correct, General Dunford?

General DUNFORD. It is. The numbers of submarines that are being requested even today, Senator, by the combatant commanders, falls less than the inventory that we have.

Senator REED. And then switching gears, but another aspect, which is the *Ohio*-class replacement, the nuclear triad is a significant deterrent force, thank goodness, and the first leg of that triad that's being renovated or remodeled, whatever the—replaced is the submarine, and somewhat obvious, it's the most durable leg because of its abilities to stealth.

Secretary CARTER. Yes.

Senator REED. That is going to require some relief in the Navy shipbuilding budget going forward. Are you contemplating that, Mr. Secretary?

Secretary CARTER. Yes. I think we all recognize the *Ohio*-replacement program, if it comes out of the rest of the shipbuilding program of the Navy, it will decimate the shipbuilding program of the Navy. We can't have that, so we're going to need additional funding. And it is the critical survivable and enduring part of our triad, and that's why building those 12 boats with the 16 tubes to replace the 14 boats we now have with the smaller number of tubes, we'll have more tubes overall, and a new submarine has to be done because the hull has submerged and come to the surface so many times, the hull gets stressed, and there is no way you can keep that going, so we've got to replace them.

Senator REED. And we have a National Sea-Based Deterrence Fund, which is a prototype really, not just for the sea-based deterrence, but eventually as we get further down in the development of the penetrating bomber and recapitalization of our land-based systems, we'll need a similar fund, but that is a vehicle that you could use, and do you anticipate using to help relieve this pressure?

Secretary CARTER. Yes. We're going to need some budget relief of some kind. Unfortunately, the money has got to come with a new label, but—

Senator REED. Just one other issue, which has been brought up, and this is the impact of sequestration. And most of your activities

involve not just the Department of Defense, but other agencies, SOUTHCOM particularly with respect to homeland security, with the Coast Guard, the State Department constantly in every venue. They face similar issues, I presume, and even if you were to be granted relief, if they are not able to pull their weight, you can't get the job done. Is that a fair estimate?

Secretary CARTER. It is. I have said this has been part of our budget discussions over the last few years over the sequester. Obviously, I'm the Secretary of Defense, so I care very deeply about the defense budget, but I know we can't do the job of protecting our country as one agency. We do need Homeland Security, we need the Intelligence, we need the State Department, we need the Energy Department, it makes big contributions, and so forth. And then I'm also aware that all the technology we've been talking about comes from the American technology base. So the country's larger strength is also important to our military strength. So important as we are, I realize we can't do the job all by ourselves.

Senator REED. I think the Chairman wants to make a brief comment.

Senator COCHRAN. The time of the Senator has expired.

Senator REED. Excuse me.

Senator COCHRAN. The distinguished Senator from Kansas is recognized.

#### GUANTANAMO BAY

Senator MORAN. Mr. Chairman, thank you very much. Let me ask just a couple of questions and make a few comments.

Mr. Secretary, we've had conversations about Guantanamo Bay detainees, and I want to follow up on that. First of all, tell you that I visited Guantanamo Bay in February. A couple of observations. First of all, I want to make certain that our most senior military leaders are not afterthoughts in the decisionmaking process that may occur in regard to what happens to detainees at GTMO. I remain totally opposed to bringing them to the United States, but I have had enough conversations with military officers to believe that there is not adequate consultation with folks who would be fully engaged in—should be fully engaged in the decision, but fully engaged in their detention here in the United States. Is that not a—you're shaking your head.

Secretary CARTER. First of all, I thank you very much for visiting them. And I'm incredibly proud of the job they do down there. They're extraordinarily professional, and it's a lousy job in many ways that we give them. So I appreciate your going there, and I'm sure it bucked them up to have you there.

The reason that we take such care, I do, and you're talking about uniformed involvement, the Chairman, but also the Attorney General, the FBI Director, and the Director of the CIA, and the Director of National Intelligence, and everybody in any of these matters that involve transfer to the custody of another country, the reason we take that so seriously is that we want that done in a way that it mitigates the risk of a return, which we saw a lot of in years past. We don't want to see any more of that.

But the fundamental thing is that not all of these guys can ever be transferred, in my judgment. So that raises the issue of, what

are we going to do with these people that I can just tell you, not on my watch, and I'll bet you not on my successor's watch either, is anybody going to transfer these people. So I personally would prefer, and I've said this openly, that we find another place to do it in the United States, and I know that that's something you don't support, and others do, but I do believe it would be better to put—and I would like to have that done before the next President comes along, get this off his or her plate, if possible.

But the underlying reality, the reason we need a detention facility, an enduring detention facility, for these people is that some of them are too dangerous, and there is no way that we're going to, even with extensive consultations with another country, and them giving us all the safeguards and so forth that we receive, that I'm going to say it's safe to transfer them. So we need a facility that keeps on.

You might want to add to that, if you're welcomed to.

Senator MORAN. Mr. Secretary, let me, and then maybe perhaps General Dunford can add, let me add two other observations from my visit to Guantanamo Bay. One, I learned that GTMO detainees know of their transfer before Members of Congress do. You're required by law to notify Congress, but I am told that they learn of that potential transfer before we do, and I've introduced legislation with a number of my colleagues to make certain that we not just are notified but have ability to prevent that transfer.

And, secondly, a concerning issue that arose in my conversations while at GTMO is, what is happening in circumstances today when a terrorist is captured in Syria? In Afghanistan? In Iraq? I'm told that there are memorandums of agreement in some countries, but not in Syria. We have not had a detainee brought to GTMO since 2008, and I have a real interest in knowing what's transpiring across the globe when we detain and capture someone, and where are they going? Perhaps that a conversation for a different setting.

Secretary CARTER. It is. We have a number of options, and so we think that through, and basically we deal with it on a case-by-case basis, and I would prefer that we do that in a different setting.

Senator MORAN. General Dunford, have I excluded you from something you wanted to say?

General DUNFORD. Senator, just very quickly, first, I was down after your visit, and I very much appreciate you visiting, and the men and women that are down there very much did. And I think the one thing you saw down there, despite whatever conversations we had about Guantanamo Bay, the one thing we can all be proud of is the behavior of the men and women down there, the discipline and the commitment that they have to the mission. I most recently was down there in March and couldn't have been more impressed.

I want to assure you that I have had opportunity to talk about this issue with Secretary Carter and the President on several occasions, and the point I've made is, number one, we have to have a place to detain people when they're picked up on the battlefield; number two, there has to be some system that we have to prosecute those that need to be prosecuted; and number three, those that are found guilty, there has to be long-term incarceration available if, through the legal system, we determine they have to be there. And those three requirements, whether or not we have a fa-

cility currently in Guantanamo Bay or in the United States, all have to be adequately addressed, and I think that's the most important military equity.

And then, of course, on the mechanics of moving to the United States, the costing and all those kinds of things, Admiral Tidd, who I believe you saw on that visit, he is personally engaged in supporting the administration and the details of moving Guantanamo Bay to the United States were that to be done.

Senator COCHRAN. The time of the Senator has expired.

Senator MORAN. Thank you to those who serve in Guantanamo Bay.

Secretary CARTER. Thank you, Senator.

Senator COCHRAN. The distinguished Senator from Montana is recognized, Mr. Tester.

Senator TESTER. Thank you, Mr. Chairman.

And thank you, gentlemen, for being here today, and thank you for what you do.

#### NUMBER OF AMERICAN TROOPS ON THE GROUNDS

The President recently announced they will be increasing the number of American troops on the ground in Syria and Iraq by 250 and 200 respectively. I had heard on the news shortly after that that our allies are making the same kind of commitment. Is that correct?

Secretary CARTER. It is. It is. They're—

Senator TESTER. And is the number of troops that our allies, the NATO allies, are sending in, they can't be sending 250—

Secretary CARTER. It's substantial in Iraq. I believe the number is around 2,500, so it's—

Senator TESTER. Total?

Secretary CARTER. This is just in Iraq.

Senator TESTER. Yes.

Secretary CARTER. They're doing more, and I can't—I don't want to speak for them because these are their special forces—

Senator TESTER. No, no, no. That's fine.

Secretary CARTER [continuing]. And they and we try to be quiet about what we're doing.

Senator TESTER. Yes, well, if it's classified—

Secretary CARTER. But they're in there all—but, no, they're in there also. And of course, I have been urging—and I'll be back in Brussels next week meeting with members of the coalition, getting others to do more as we do more to get this done.

#### SYRIA

Senator TESTER. Okay. That's good. And I appreciate that. What about Syria? Is it the same kind of effort?

Secretary CARTER. And ditto in Syria.

Senator TESTER. What's—and ditto in Syria?

Secretary CARTER. They're coalition partners, a somewhat different mix—

Senator TESTER. Okay. Perfect.

Secretary CARTER [continuing]. Of parties in Iraq and Syria, they have different relationships with those two countries.

Senator TESTER. Okay. And are they following these troops with additional resources? I assume the United States is.

Secretary CARTER. Yes. Yes, they are. Obviously, we're always urging them to do more, even as we're looking for opportunities to do more ourselves. And one area where we talked to the Gulf countries, I was in the Gulf last week with the President, was on stabilization and reconstruction. You know, Ramadi is now recaptured, but it's a mess, so somebody has to get the water going, get the power going, get the schools opened, and that kind of thing, and so we're looking to some of our partners in the Gulf and in Europe to help us in that dimension as well as the military dimension.

Senator TESTER. And I'll apologize for my next questions ahead of time because I don't know that you're going to know the answer, but if you do, God bless you. What are our short-term objectives there, in Syria, and in Iraq as far as that goes? We'll just call it Middle East.

Secretary CARTER. Oh, yes. In Syria, the immediate objectives are to continue to what Shaddadi did, namely, to separate and make impossible or very difficult any travel or communication between Mosul and Raqqa, effectively sever the tumor in half.

Senator TESTER. Okay. Okay.

Secretary CARTER. And, secondly, begin to gather forces and enable them. That's where the 1209 funding I mentioned earlier comes in to Raqqa, because the objective in Syria is to collapse ISIL's control of Raqqa. In Iraq, the next step after Ramadi and Heet, the thing we're focused on is collecting and positioning before Ramadan commences the forces for the envelopment of Mosul. Some of those are ISF forces coming from the south, some of them are two brigades of peshmerga coming from the north. We would like to complete that envelopment before Ramadi. So those are two of the immediate operational objectives.

Senator TESTER. Okay. And to achieve those two objectives, how long?

Secretary CARTER. We would like that, the objective of positioning the first for the envelopment of Mosul before Ramadan, which is now 5 weeks away.

Senator TESTER. Okay. And what about cutting off the communication channels with Syria? What about cutting off the communication channels in Syria that you talked about?

Secretary CARTER. That is something that I've charged our CYBERCOM with doing.

Senator TESTER. Okay.

Secretary CARTER. It's the first ever—I can't talk about that too much in here, but you can imagine we don't think that people ought to be able to sit in Raqqa planning against Americans.

Senator TESTER. Okay. You talked earlier, and I can't remember who asked the question about Russia and Syria and the fact that we don't—we do not see life the same, which is true. Do we have—do our—Russia and the United States have any objectives that are the same in Syria?

Secretary CARTER. We have objectives—we have objectives in common with what they said they wanted to do, but not actually what they did.

Senator TESTER. Okay.

## ISIL

Secretary CARTER. What they said they wanted to do was to fight ISIL, and that's fine with us, have at it, and they have every reason to fight ISIL because ISIL is fighting them——

Senator TESTER. Right. Right. Gotcha.

Secretary CARTER [continuing]. And has for a long time. But they came in instead and backed Assad.

Senator TESTER. Yes.

Secretary CARTER. So that wasn't quite—they said one thing, did another. So we have a problem with their behavior, but still, if they would get on the right side of this thing, that would be good.

Senator TESTER. One last question, and this is an easy one. Is there any more to be interpreted into the flyovers that they talked about by the Russian planes other than just a pilot screwing around, or is there another message there?

Secretary CARTER. I can't speculate on that. It is unprofessional behavior, and whether it's encouraged from the top, whether it was encouraged from higher up or not, I can't say, but we do expect it to be discouraged from higher up from now on. That's the reason why the Chairman had the conversations he did, and these pilots need to get the word, "Hey, knock it off." This is unprofessional. This is dangerous. This could lead somewhere. You know, we're going to have to—we obviously disagree about things, but we can't be accidentally stumbling into something.

Senator COCHRAN. The time of the Senator has expired.

The Chair recognizes the distinguished Senator from Alaska, Ms. Murkowski.

Senator MURKOWSKI. Thank you, Mr. Chairman.

## F-35

Secretary and General, welcome, and thank you for your leadership in so many different ways. I just listened to the discussion this morning so much focus on Russia. I will just remind my colleagues, 57 miles, 57 miles between my State and Russia. So we're keeping an eye, as I know you all are.

And I want to speak just very quickly, first of all, about the F-35s. We had a pretty good announcement this spring. Thank you. I appreciate the announcement of the record of decision in signing the two squadrons of the F-35s there at Eielson. This is the first beddown F-35 at a beddown in the Pacific, and I think it's a very important step forward in national security.

There is some discussion going on right now among the Appropriations Committee between the House and the Senate. The House has suggested that perhaps not the full funding for the F-35 beddowns be moved forward in the time that has been prescribed by the administration. Can you tell me in your words why it's important from a national security perspective that the Air Force field the F-35As in the Pacific in the 2020-21 timeframe and why it makes sense that we fully fund this beddown now rather than a more phased approach?

Secretary CARTER. I can, Senator. The reason that we put that in our budget is that the F-35 is one of our, obviously, our most

capable advanced tactical fighter, and it's part of the Asia-Pacific rebalance, which Alaska is a part of by dint of strategic location. And we made the decision several years ago to position our most modern and advanced equipment to the Asia-Pacific. So we're increasing not only the numbers, but the qualitative edge of our forces in the Asia-Pacific, and then some recognition of the vastness of the region, but also that it is, as I said earlier, the most—the single part of the world, much as the Middle East is in the news all the time, this is the part of the world that is most consequential for America's future because half of the world's population lives out there and half of the world's economy is out there.

## ARCTIC

Senator MURKOWSKI. I appreciate that, and I appreciate the focus again on the region that I'm talking about within the Arctic. And we had a conversation last year that I thought was pretty consequential, and it was regarding the Arctic. At that time, you stated before this committee that the Arctic is going to be a major area of importance for the United States strategically and economically in the future, and you went on to say, "I think it's fair to say that we're late to the recognition of that." And you closed your remarks with a statement, "I think a plan that is more than aspirational is needed, and so I would be happy to work with you to that end." I found those words very encouraging. I thought it was actually paradigm shifting, but we haven't really seen much.

I was moving through very quickly this morning as others were asking to see if there wasn't some more clarity there on our Nation's defense needs in the Arctic, more so than there was a year ago, but I'm not seeing a timeline for investments, I'm not seeing this aspirational plan. So can you give me an update when it comes to our Arctic defense needs? Are we any better off than we were a year ago?

Secretary CARTER. I can. Oh, absolutely. I agree, I agree with everything I said then, including the need to do what we've done this past year, and so we are paying increasingly attention to our, what I'll call our strategy toward the Arctic. There's no other way to say it.

I might ask the Chairman to comment on that because I think that was part of the sum of the exercising that he led just a few weeks ago.

Senator MURKOWSKI. Thank you.

General DUNFORD. Senator, I think, first of all, the decision to leave the brigade, the elements of the brigade combat team, in Alaska, that I know you were very involved with was in part—

Senator MURKOWSKI. Well, and thank you. That was so smart, so important.

General DUNFORD [continuing]. Informed—I know the Secretary's decision to do that was in large part informed by our focus on both the Pacific and the Arctic. I also would tell you that our investments in undersea, our investments in space and cyberspace and those kind of things focused on the Russian threat have to do with every place that Russia operates at, and increasingly as we think about Russia strategically, you know, we were focused for some years, I think fair to say, on Europe, but much broader now as we

look at the Russia challenge in particular, it's a Pacific challenge, it's an Atlantic challenge, but as you correctly point out this morning, it's an Arctic challenge as well.

But I would tell you that the capability enhancements that we're making in those fundamental areas with Russia that have been spoken about today and are articulated in the President's budget very much will improve our posture in the Arctic. And what the Secretary is really alluding to, too, is increasing the exercise program that General Breedlove has established in the European Command for the very purpose of deterring Russian behavior and ensuring that they understand that we can respond anywhere we need to respond to, and it's also sending a message to our partners as well that they are assured of that response.

Senator MURKOWSKI. Well, I appreciate that, and my time has expired.

Senator COCHRAN. The time of the Senator has expired.

Senator MURKOWSKI. I again thank you for the decision with the 4th Airborne Combat Brigade Team, but I will remind you that we're still—it's basically in a 1-year pause, so the real question then becomes how we deal with that after this next year. So we look forward to further conversation.

Thank you, Mr. Chairman.

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

Senator UDALL. Thank you very much, Chairman Cochran.

And, Secretary Carter and Chairman Dunford, thank you for your service. Good to have you hear today.

As you probably know, folks from my State have a proud history of military service, and you may not know this, but there is more DOD land in New Mexico than any other State. I think it's about 3.5—

Secretary CARTER. I do know that.

Senator UDALL [continuing]. Total acres there, 3.5 million total acres. Each of New Mexico's bases provide a unique capability that supports our national security, from Kirtland, its future space capabilities; Holloman, training future RPA pilots; Special Forces who trained in Cannon and are engaging ISIS in Iraq and Syria; and just this week, the Navy announced it's building a railgun facility at White Sands Missile Range.

#### TEST RANGES

Mr. Secretary, the fiscal year 2017 budget emphasizes defense innovation. DOD calls these efforts the Third Offset, and as you know, this will require advanced testing and evaluation capabilities. And I'm concerned that years of funding shortfalls at White Sands Missile Range (WSMR) could degrade its capabilities. This could affect Holloman, too, because it uses WSMR's airspace. Are facilities like White Sands Missile Range adequately postured to test these future capabilities? How is DOD addressing these shortcomings?

Secretary CARTER. Well, first of all, thank you and everyone else who has military installations in their State, for hosting—we have almost invariably wonderful relationships with the communities in

the States, and that's certainly true in your State, and grateful for it. And I am aware of how much you do.

And in the specific matter of WSMR and test ranges in general, we do have a recognition, which is reflected in the investments that go with the Third Offset and other technology efforts we have to improve a number of our ranges, WSMR being one of them. In the years where we were, in my judgment, not making adequate investments in future technologies, one of the ways we didn't make those investments was in range infrastructure upgrades, and so forth. So we know we're a little behind in that regard. All the services know that, and they're all investing in improving range instrumentation facilities and so forth, and that's going on at WSMR and elsewhere.

Senator UDALL. Great. Thank you. The Army recently conducted a successful test of the Integrated Air and Missile Defense Battle Command System at White Sands at the range there, and as the United States rebalances to the Pacific, missile defense for our allies in South Korea and Japan, it's of increasing importance. How can we leverage the testing and facilities at White Sands and Holloman Air Force Base to increase our coordination and training with both those countries on missile defense and combined air defense as well as search and rescue?

Secretary CARTER. It's important because integrated air and missile defense is one of those things that is inherently regional, and so countries that have a common security threat, it makes sense for them to work together. That's why we work with the Japanese and the South Koreans against the North Korean missile threat, which, as we all know from the news in recent weeks, is a real one.

And I said I was in the Gulf last week, by the way, and also there, talking to the Gulf partners, all of whom have individually procured from us air and missile defense systems. We're trying to get them to network in the same way. And the kind of testing we can do at WSMR is the way that you integrate different kinds of sensors and different kinds of missile defense systems so they share and apportion the battle space in a smart way.

Senator UDALL. Great. Thank you. Just a final quick question. As you know, the National Labs have made significant progress on the B61 life extension. Behind that is the W80-4. And I guess my question there is, will you work to ensure that NNSA and the Air Force coordinate appropriately to complete this on time and within budget?

Secretary CARTER. Yeah, absolutely. We need to work, and we have worked very closely with the Department of Energy. I have a great relationship with the leadership there, excellent leadership, the Secretary and Deputy Secretary of Energy, and we have the Nuclear Weapons Council, which is the way that for decades now DOE, NNSA, and DOD have worked together, and we need the B61-12 and we need the W80 to keep a safe, secure, and reliable nuclear deterrent, which we have to have.

Senator UDALL. Thank you both. I really appreciate it.

Senator COCHRAN. Thank you, Senator from New Mexico.

The Chair now recognizes the Senator from Kansas, Mr. Moran.

## CYBER

Senator MORAN. Mr. Chairman, thank you very much. I'll try to be brief in case other Senators have a follow-up question.

Secretary, let me raise a topic that you and I had a conversation about when we first met cyber, the cyber mission, cybersecurity. Recruiting is a significant component of our ability to meet our cyber needs. I am happy to report that 300 new enlisted airmen in Kansas are ready to go to work in cybersecurity. They're ready to join the force. Unfortunately, what we know is that security clearances are still being held up by OPM, and in fact, the indications are that the backlog is in the thousands and won't catch up till 2025, and I would raise this topic for your consideration and ask you to help find a solution at OPM so we can get these young men and women cleared.

Secretary CARTER. Understand, Senator. We're working on that. Senator MORAN. Thank you very much.

## END-FORCE STRENGTH

And then, General, let me talk about end-force strength. I'm worried that we are downsizing particularly our ground troops, Marines and Army, beyond what we should be doing, and particularly in light of recent deployments, I wonder if we're not putting—I think I know the answer. We're putting fiscal conditions or considerations ahead of operational and defense perspective, and I would like your thoughts in regard to that.

General DUNFORD. Senator, thanks. And my thoughts really reflect my experience prior to this as a service chief and from where I sit right now. To me, the number one priority that we have today is to make sure whatever size force we have is capable. And so this year, although there were challenges with the force structure, we said we have the minimum force structure necessary to meet the strategy, but where I was most concerned was to make sure that the force that we had, had the proper training, had the proper equipment, and had the proper leadership. And so what you have identified is a priority that we had to make, a choice that we had to make, to balance risk, the risk of the size of the force and again, it could meet our strategy. You would always want to have more depth, but I would only want to, as a leader, have more depth, meaning more force structure, if I could be assured that that force structure would be properly supported and translated into capability, and I think many of our readiness challenges right now reflect that even with the force structure that we have, we're not providing adequate training, we're not providing adequate equipment and weapons and so forth, and now modernization is falling behind. So trying to achieve that balance, Senator, is really what this year has been all about.

Senator MORAN. General, am I incorrect in my thinking, which is that in order to have adequate training and preparation, the size of the end-strength has to be sufficient because of deployments, you need to be training at the same time soldiers and marines are being deployed; therefore, there's a relationship between readiness and end-strength?

General DUNFORD. No question, Senator. That's absolutely one of the variables. It's an important variable in our overall readiness equation.

Senator MORAN. Thank you both.

Thank you, Mr. Chairman.

Senator COCHRAN. I thank the Senator, and I thank all the Senators for their participation in the hearings.

#### ADDITIONAL COMMITTEE QUESTIONS

And to our distinguished panel of witnesses, we want to thank you for your continued assistance to the committee and your participation in this hearing today. We're grateful for your service, and we look forward to a continuing dialogue throughout the fiscal year 2017 in the appropriations process. Senators may submit additional written questions, and we would appreciate your responding to them in a reasonable time for our record.

[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. ASHTON B. CARTER

#### QUESTIONS SUBMITTED BY SENATOR MITCH McCONNELL

#### FORT KNOX MEDICAL CLINIC EXPANSION

*Question.* Will the location of the new Fort Knox medical facility allow for potential expansion if Fort Knox were to gain additional active-duty units and servicemembers?

*Answer.* The location of the new Fort Knox medical facility will allow for potential expansion if Fort Knox were to gain additional active-duty units and service members. In accordance with UFC 4-510-01, the site includes future building expansion for 20 percent of the enacted DD Form 1391 gross building area. The site also allocates adjacent land for the construction of a VA Community Based Outpatient Clinic. Additionally, the demolition of the current Ireland Army Community Hospital will clear land immediately west of the new medical clinic, which will then be available for future development.

#### FORT CAMPBELL AIRFIELD

*Question.* Does DOD have plans to repave the airfield at Fort Campbell? If so, please provide details of this plan, including the anticipated start date.

*Answer.* Yes, DOD plans to repave the Fort Campbell Army Airfield. The U.S. Army Mission and Installation Contracting Command-Fort Campbell announced an anticipated contract award date in mid-June. The current plan is to begin the repair of the supporting facilities and infrastructure, including the taxiway, ramp and electrical vaults, in order to repave the airfield within the April to July 2017 timeframe.

#### FORT CAMPBELL BARRACKS

*Question.* Does DOD house any servicemembers at Fort Campbell in Korean War-era barracks? If so, does DOD have plans to ensure that these facilities are brought up to date for Fort Campbell servicemembers, many of whom have been deployed multiple times?

*Answer.* Yes, the Fort Campbell training battalion currently utilizes two Korean War-era barracks buildings for temporary housing. They have a quality rating of Q2 adequate, and do not require renovation or repair at this time. The Soldiers are moved to permanent barracks when they are assigned to their unit, usually within ten days.

#### MILITARY SEXUAL ASSAULT PREVENTION AND RESPONSE

*Question.* What steps is DOD taking to prevent sexual misconduct in the military? How does DOD plan to ensure that victims of sexual assault and harassment in the military do not face retaliation for reporting these crimes?

### *Retaliation*

*Answer.* The Department is committed to a military culture that rejects destructive behavior and supports those who have the courage to report a sexual assault, or any other form of crime or misconduct. We released the Retaliation Prevention and Response Strategy in late April 2016 to develop a uniform retaliation prevention and response process across the Department of Defense. The strategy targets key issue areas associated with retaliation, such as: standardizing definitions, improving data collection and analysis, streamlining investigation and accountability efforts, strengthening reporter protections, and creating a culture intolerant of retaliation.

To further combat retaliation we have:

- Enhanced the Safe Helpline (SHL) to provide an anonymous reporting option for allegations of retaliation through a secure web form at safehelpline.org. SHL staff members are trained on how to guide people to the right authorities in the DOD to report retaliation allegations;
- Leveraged the Case Management Group chairs (Commanders) to ask about retaliation allegations reported at the installation level;
- Enhanced training of first-line supervisors who work with our youngest troops—those at greatest risk for sexual assault—to teach the skills needed to intervene early should they witness inappropriate or retaliatory behavior; and
- Developed tools to assess progress in eliminating retaliation as follows:
  - Refined our survey questions to use questions that are behaviorally-based, and align with policy and law to achieve greater clarity as to the scope and specificity of the range of perceived retaliation, and
  - Captured victim feedback on their reported experiences of retaliation through the Workplace and Gender Relations Survey, Survivor Experience Survey, and Military Investigation and Justice Experience Survey.

### *Sexual Assault*

The Department is committed to reinforcing a military culture where every Service member understands their role in upholding ethical standards of behavior as a way to prevent sexual assault. We are engaged in the following actions to further our sexual assault prevention efforts:

- Expanding Service-led training on intervention to ensure Service members have the tools and confidence to step in;
- Publicizing sexual assault case outcomes on Service websites and installations to underscore Service commitment to holding offenders appropriately accountable;
- Collaborating among base and local communities to foster responsible alcohol use;
- Updating our prevention strategy to reflect the importance of addressing risk and protection factors;
- Conducting research at the installation level (Installation Prevention Project) to identify risk and protective factors in order to better link sexual assault prevention activities with desired outcomes; and
- Reinforcing leadership roles and responsibilities using a variety of information-sharing methods, such as:
  - Dialogue with commanders at every level;
  - Prevention Roundtable with SAPR prevention leads;
  - SAPR Connect Online Portal with nearly 2,000 members around the world; and
  - Quarterly application-focused webinars and workshops.

Tools to Assess Progress in Preventing Sexual Assault:

- Command Climate Surveys which identify strengths and challenges impacting the work climate. The results of these surveys assess efforts by commanders and inform commanders of their unit activities, culture, and deficiencies to be addressed;
- A full range of metrics that include all key attributes of successful performance measures, such as, changes in problematic attitudes and behaviors that lead to sexual assault or retaliatory behaviors for reporting a sexual assault.

### *Sexual Harassment*

OSD (P&R) established an integrated processing team (IPT) in February 2016 to further strengthen both the prevention of and response to sexual harassment policies. The Department is developing policy that will provide revised terms, definitions, and processes for sexual harassment prevention and response and will clarify the framework for oversight of sexual harassment and response programs. The policy will:

- Ensure accountability across all Services and the National Guard Bureau (NGB) in addressing incidents (including anonymous reports) of sexual harassment, with additional focus on joint environments.
  - Require the Services and the NGB to provide complete and accurate data on incidents of sexual harassment (including anonymous reports) by applying uniform data and reporting requirements.
- Ongoing Service activities include:
- Sexual harassment prevention training at all levels of the organization.
  - Department of the Navy’s training initiative, Chart the Course, is scenario-driven interactive training on the prevention of, and response to, a variety of destructive behaviors, including sexual harassment, which is conducted by command facilitators. Training must be completed by all Sailors before September 30, 2016.
  - Department of the Navy also conducts face-to-face mandatory annual Equal Opportunity/Sexual Harassment and formal grievance procedures training.
  - Army Sexual Harassment and Assault Response and Prevention (SHARP) program uses Integrated Case Reporting System (ICRS) to provide senior leaders with informational dashboards and reports to improve their prevention efforts.
  - Air Force recently tested the implementation of an automated data collection and tracking system for the case management of sexual harassment and discrimination complaints, both formal and informal. Air Force policy requires that all formal complaints and commander-directed investigations of informal complaints be documented in Air Force Equal Opportunity Network and reported by commanders to the General Court-Martial Convening Authority.

#### MENTAL HEALTH TREATMENT AND CARE

*Question.* Many of our Nation’s servicemembers continue to struggle with mental health issues, particularly post-traumatic stress disorder (PTSD) and traumatic brain injury (TBI). Are there any additional resources or authorities that DOD needs from Congress in order to provide effective treatment and care to servicemembers with mental health issues?

*Answer.* No additional resources or authorities are needed from Congress at this time. Since September 11, 2001, with the support of Congress, the Department of Defense (DOD) increased the outlays for mental healthcare by a 10 percent compounded annual rate from fiscal year 2002 through fiscal year 2014, with care now embedded into both primary care clinics and fighting units across the Department. The number of mental health providers in the Military Health System has risen 42 percent from fiscal year 2009 through fiscal year 2015.

In 2011, the Department conducted a review of mental health providers as part of a report to Congress, Mental Health Personnel Required to Meet Mental Health Care Needs of Service Members, Retired Members, and Dependents, as required by the National Defense Authorization Act (NDAA) for fiscal year 2010, Section 714. At that time, the Services reported sufficient availability of the current mental health provider types. Further, a more recent DOD/Department of Veterans Affairs Report<sup>1</sup> conveyed that staffing models utilized by the Services confirmed the Services have the mental health provider types they need. Mental health treatment services continue to meet the mental health demands of our Service members.

Also, the NDAA for fiscal year 2015, removed TRICARE statutory limitations on inpatient psychiatric treatment (30 days for adults, 45 days for children) and residential treatment center care for children (150 days), enabling removal of all quantitative limitations on mental health treatment provided under TRICARE. TRICARE program manuals are already in coordination for incorporating these changes. Additionally, a Proposed Rule, “TRICARE: Mental Health and Substance Use Disorder Treatment,” was published in the Federal Register (FR Vol. 81, No. 20) on February 1, 2016, which proposes to revise TRICARE coverage by eliminating quantitative limits on mental healthcare, consistent with mental health parity for medical/surgical procedures. This will expand access to care for TRICARE beneficiaries.

#### OPIOID ABUSE IN THE MILITARY

*Question.* Substance abuse disorders continue to be a challenge for military servicemembers. What steps are being taken by DOD to address substance abuse issues, particularly opioids, in the military?

<sup>1</sup>Department of Defense/Department of Veterans Affairs Report to Congress in Response to Senate Report 113–44, pg. 133, accompanying S. 1197, the NDAA for fiscal year 2014: Mental Health Counselors for Service Members, Veterans, and Their Families.

*Answer.* The Department of Defense (DOD) has undertaken several major policy and program changes to ensure the DOD is addressing substance use disorders (SUDs) in the military, including opioids. These efforts include the removal of the ban on substitution therapies for the treatment of SUDs (2013), implementation of a DOD-level committee to coordinate SUD services (formed in 2011), and proposed changes to TRICARE coverage for SUD care. While data show an increase in the SUD epidemic across the country, particularly regarding prescription misuse, overall prescription drug misuse is low in the military and on the decline. Within the DOD, between fiscal year 2010 and 2015, there was a 29 percent decrease in the number of Service members receiving a primary diagnosis of Opioid Drug Dependence and/or Opioid Abuse, with an overall prevalence rate of 0.2 percent (Military Health System (MHS) Data Repository, extracted February 24, 2016). Despite this, DOD has strengthened its partnership with several entities including the Office of National Drug Control Policy and the Department of Veterans Affairs (VA).

The Proposed Rule: “TRICARE: Mental Health and Substance Use Disorder Treatment” published on February 1, 2016, will expand access to SUD care for TRICARE beneficiaries. In particular, the Proposed Rule seeks to expand access to care for opioid use disorder, allowing office-based opioid treatment by individual TRICARE-authorized physicians as well as adding coverage of qualified opioid treatment programs as TRICARE authorized institutional providers.

In 2014, a panel of VA and DOD clinical experts was convened to update the SUD clinical practice guideline (CPG) that included a systematic review of all applicable evidence. This CPG was finalized and widely distributed to healthcare providers within the VA and DOD in December 2015. The DOD and the VA are also in the process of updating the Management of Opioid Therapy for Chronic Pain CPG with an anticipated release date of December 2016.

In 2013, DOD instituted mandatory training for all prescribing providers regarding the effective use of opioids to treat and manage pain, the identification of patterns of misuse and addiction, and the tools to intervene in cases where misuse and addiction are suspected. Consistent with requirements outlined in the October 21, 2015 “Presidential Memorandum Addressing Prescription Drug Abuse and Heroin Use,” DOD is reviewing current training practices addressing the pain management education and training needs of clinicians in the MHS. This includes targeting best opioid prescribing practices. Under the auspices of the President’s Office of National Drug Control Policy, the DOD and VA have collaborated for a number of years on the “Joint Pain Education Project” (JPEP) to build a primary care curriculum for pain management. The JPEP curriculum has been promulgated by the Uniformed Services University School of Medicine, to ensure that developing military medical leaders understand the issue of opioid medication use and misuse within the larger context of an integrative approach to pain management.

In its efforts to identify substance use problems early, the MHS has four primary tools to monitor opioid prescriptions. These are the Pharmacy Data Transaction Service; the Controlled Drug Medication Analysis Reporting Tool; the Polypharmacy Medication Analysis Reporting Tool; and, the Defense Health Agency Prescription Monitoring Program. Overall, these monitoring tools focus on capturing all beneficiaries’ prescription information and alerting Military Treatment Facility healthcare providers of prescription trends through actionable reports that can be utilized to address concerns.

#### FORT CAMPBELL MAINTENANCE FACILITY

*Question.* It is my understanding that the major maintenance facility at Fort Campbell is decades old and in need of replacement. Does DOD have plans to replace this aging facility? If so, please provide details of this plan.

*Answer.* The Army’s Military Construction and Facility Sustainment, Restoration and Modernization resources are focused on facilities that are in the worst condition or on projects that address urgent readiness priorities. The Army’s Military Construction budget is at historic lows. The Army will continue to review and prioritize all military construction requirements in future budget cycles to replace aging facilities to support operations, training and readiness. The Army recognizes the need to recapitalize and consolidate the existing failing and obsolete facilities of the Logistics Readiness Center (LRC) at Fort Campbell, Kentucky, in support of improved efficiency maintenance readiness.

#### DOD PROGRAMS FOR MILITARY SPOUSES AND FAMILIES

*Question.* As you know, servicemembers at Fort Campbell have been on a near-constant cycle of deployment in support of the Global War on Terror. Many Fort Campbell servicemembers have deployed abroad multiple times, resulting in sub-

stantial time away from their spouses and families. What programs does DOD currently offer to help support spouses and families of servicemembers at Fort Campbell—and other military installations—when they are deployed and once they return home? Does DOD require additional authority from Congress to help support military spouses and families?

*Answer.* DOD does not require additional authority from Congress to help support military spouses and families.

The Army provides many programs and assistance to families while Soldiers are deployed, to include families residing at Fort Campbell.

The Army Family Readiness Groups, made up of family members and supported by the deploying unit, are established to serve as a communications mechanism between families and the deploying command. This conduit facilitates the transfer of accurate information between the command, deployed Soldier, and his/her family members. It also serves as a focal point to address issues and concerns raised by family members. The Virtual Family Readiness Group (vFRG) web system provides the functionality of a traditional FRG, in an ad-hoc and on-line setting, to meet the needs of geographically dispersed units and families across all components of the Army.

DOD provides ongoing support to military families through installation-based Military and Family Support Centers, Reserve Component Family Programs, and Military OneSource throughout the military life cycle. Some of those programs and services become of increased value to military families when a Service member is preparing for, in the midst of, returning from, or reintegrating following deployment. Specific transition assistance related to the deployment cycle is provided to enhance the military family's emotional and practical preparedness for the deployment. Assistance includes education about the deployment process, known impacts on families, and resources available to help them manage their deployment experience. Developed to address members of the Reserve Component, the Yellow Ribbon Reintegration Program is a DOD-wide effort to promote the well-being of National Guard and Reserve members, their families, and communities, by connecting them with resources throughout the deployment cycle.

The DOD's Spouse Education and Career Opportunities offers a comprehensive suite of tools and resources designed to assist military spouses in the pursuit of their educational and career goals. The Military Spouse Employment Partnership is an employment and career partnership connecting military spouses with more than 300 partner employers who have committed to recruit, hire, promote, and retain military spouses in portable careers. Since the program began in mid-2011, partner employers have hired more than 95,000 military spouses at all levels and across many industries.

In addition, families with young children are eligible for respite child care services that provide temporary relief or a "short break" to the parent or guardian who is responsible for caring for their child. Child care fee assistance programs designed to 'buy down' the cost of child care while the Service member is deployed are also available.

Morale, Welfare and Recreation (MWR) programs are essential to readiness and resilience of Service members and their families, both during deployment and once the Service member returns home. MWR offers programs such as outdoor recreation, fitness, library, bowling, dining, travel, entertainment, cultural arts, and other leisure activities that lead to improved personal health and well-being, and helps build strong military families. In the deployed environment, the MWR Internet Café and Morale Satellite programs provide the capability for warfighters to stay in touch with family and friends throughout the deployment cycle.

---

#### QUESTIONS SUBMITTED BY SENATOR PATRICK J. LEAHY

##### SEXUAL ASSAULT AND HARASSMENT

*Question.* The issue of sexual assault and harassment in the military is again in the headlines, both with the recent suspension of a Naval Academy professor, and with an Associated Press investigation that called into question statistics that were supplied to Congress on prosecutions. How can we have confidence in a system in which due process for alleged victims and defendants looks so different from the justice system most Americans use?

*Answer.* The Congressionally established military justice system is a fair system that often provides victims and criminal defendants with more rights than do civilian justice systems. For example, the military justice system provides a defense counsel to every service member tried by a special or general court-martial without

regard to indigence. Additionally, consistent with 10 U.S.C. § 1044e, which was enacted by the National Defense Authorization Act for fiscal year 2014, counsel are made available to represent service members, their dependents, and some Department of Defense civilians who report being the victim of a sex offense. Once again, this is a greater protection than is available in any civilian criminal justice system of which we are aware.

It would be inappropriate to discuss the Naval Academy case mentioned in the question, as proceedings related to that case are on-going. I asked my staff to examine the Associated Press article mentioned in the question. That review found that both the AP article and a non-profit organization report that was discussed in the article drew conclusions based on inadequate information, misunderstanding of the military justice system, and mischaracterizations of the assertions that the Department of Defense actually made.

The trial of a court-martial case resembles trials in Federal district courts, with evidentiary rules that follow closely the Federal Rules of Evidence. Additionally, due process is protected in the system by the Congressionally established United States Court of Appeals for the Armed Forces, a court comprised of civilian judges appointed by the President and confirmed by the Senate that sits atop the military justice system.

Of course, no justice system is perfect. The Department of Defense believes it is important to continually assess the military justice system and, where possible, recommend improvements. The Department did just that when it established the Military Justice Review Group, which scrutinized the system for a year, resulting in the proposed Military Justice Act of 2016, which the Department transmitted to Congress on December 28, 2015. Enactment of that legislation would further strengthen the military justice system.

#### DOMESTIC RESPONSE

*Question.* With a smaller military than ever, the Nation needs to plan carefully how its dual-use forces will be able to carry out their dual uses under the States' authority and how that will interact with a Federal response, should it be needed. Can you describe the current all-hazard planning process and how the National Guard personnel and equipment this Committee funds will be used to respond to a domestic disaster?

*Answer.* Consistent with Presidential Policy Directive 8: National Preparedness, the Federal Emergency Management Agency (FEMA) has led a deliberate all-hazard planning process to ensure integrated regional plans are in place for each of the 10 FEMA regions. The purpose of these plans is to speed disaster responses by enabling quick decisions based on pre-determined plans. The Department worked closely with FEMA to integrate planning efforts and identify both response and coordination requirements challenges during major disasters. This integrated regional all-hazards planning process informs the Department's development of its own contingency plans for supporting civil authorities.

When not in Federal service, National Guard personnel may be utilized by governors as they determine necessary, to protect the safety and welfare of State residents in the aftermath of a domestic disaster. National Guard personnel may use Federal property issued to the National Guard of their State in support of those activities. In certain circumstances, National Guard personnel and equipment may, as authorized by law or with the consent of the appropriate governor, also be utilized by the Department to support the Federal Government's efforts to assist affected States.

The Department invested billions of dollars in building, equipping, training, and sustaining the Army National Guard and Air National Guard as capable forces ready to carry out the Department's national defense missions. These expenditures also ensure that each governor has significant capabilities and capacities in their Army National Guard and Air National Guard to respond to domestic disasters. If necessary, each governor also has access to nearby State capabilities through cooperative agreements under the Emergency Management Assistance Compact program. This "storm-tested" and proven system stands as the cornerstone of the Nation's mutual aid program.

---

#### QUESTIONS SUBMITTED BY SENATOR DIANNE FEINSTEIN

##### CONVENTIONAL VS. NUCLEAR CRUISE MISSILE

*Question.* Secretary Carter, during our hearing last year, I asked you why the Defense Department needs a new nuclear cruise missile. You responded: "The reason

for the advanced cruise missile is to replace the cruise missiles that exist now—in recognition of the fact that air defenses are improving around the world and that keeping that capability to penetrate air defenses with our nuclear deterrent is an important one.” Mr. Secretary, as you know, we can penetrate enemy air defenses with a variety of ballistic missiles, as well as with our most advanced bombers that carry gravity weapons. We also have developed and are fielding an advanced conventional cruise missile called the Joint Air-to-Surface Standoff Missile capable of attacking targets behind advanced air defense systems.

Secretary Carter, the 2010 Nuclear Posture Review called on the military to reduce our reliance on nuclear weapons by strengthening conventional capabilities. Why do we need a new nuclear cruise missile when a conventional alternative already exists?

*Answer.* The United States requires the Long-Range Standoff (LRSO) cruise missile in order to meet U.S. nuclear deterrence objectives and extended deterrence commitments once the existing AGM-86B Air-Launched Cruise Missile (ALCM) reaches the end of its service life. Although the Joint Air-to-Surface Standoff Missile (JASSM) and its extended range version (JASSM-ER) are effective conventional weapons, they do not provide a nuclear deterrent, nor do they meet the performance characteristics and operational requirements, including range, for the ALCM and the LRSO. Conventional weapons cannot provide the same effects as a nuclear weapon on large-area or hardened targets. Nor can conventional weapons duplicate the ALCM’s unique contribution to and role in effective nuclear deterrence, which requires that an adversary believe the United States can respond in kind to a nuclear attack. Deterrence could fail if an adversary believes limited nuclear weapon use against the United States or its allies might coerce the United States to grant concessions or abandon its objectives due to a lack of credible response options. Such a situation could encourage destabilizing aggression by adversaries, or drive U.S. allies to seek their own nuclear arsenals.

#### WERE CONVENTIONAL ALTERNATIVES CONSIDERED?

*Question.* Secretary Carter, the fiscal year 2016 National Defense Authorization Act required a report on the cost of the new nuclear cruise missile. The report your Department submitted does not actually contain an overall cost estimate. I understand the Air Force is still developing that estimate. There is one line in this report that I would like to bring to your attention because it is factually incorrect, and I believe the error reflects the way this program has been considered to date. The report states: “The 2010 Nuclear Posture Review...committed to maintaining a viable standoff nuclear deterrent for the air leg of the nuclear triad.” The 2010 Nuclear Posture Review did no such thing. It stated: “In addition, the Air Force will conduct an assessment of alternatives to inform decisions in fiscal year 2012 about whether and (if so) how to replace the current air-launched cruise missile (ALCM), which will reach the end of its service life later in the next decade” (emphasis added).

Secretary Carter, as you can see, the 2010 Nuclear Posture Review made no commitment to maintaining a nuclear cruise missile capability. I understand that the Air Force is currently conducting an analysis of alternatives for the existing nuclear cruise missile. Do you know if the Air Force is considering conventional alternatives? If the Air Force does not consider conventional alternatives, will you direct them to do so?

*Answer.* While the decision to replace the current Air Launched Cruise Missile (ALCM) had not yet been made at the time of the 2010 Nuclear Posture Review (NPR), the Air Force subsequently completed an Analysis of Alternatives (AoA) for replacement of the ALCM. The AoA determined that an ALCM replacement was the only option that would meet United States Strategic Command nuclear deterrence requirements. Replacing the ALCM supports the NPR objective of sustaining a highly capable strategic bomber force, both for effective regional deterrence and to provide a rapid and effective hedge against geopolitical uncertainties and technical challenges in the other legs of the Triad. As is the case for all U.S. nuclear weapons, nuclear deterrence is the fundamental role of the ALCM and its replacement, the LRSO. Conventional weapons cannot duplicate the nuclear-armed cruise missile’s contribution to and role in effective nuclear deterrence. Development of the LRSO is a key component of the Nation’s nuclear modernization plan and will help ensure we maintain a credible and effective deterrent in the face of evolving threats.

#### DETERRENCE VALUE OF A NUCLEAR CRUISE MISSILE

*Question.* In a 2014 letter to this Committee, Under Secretary of Defense Frank Kendall suggested that a new nuclear cruise missile has a purpose “beyond deterrence” and provides the President “uniquely flexible” options in an extreme crisis.

Can you explain what mission the nuclear cruise missile would have “beyond deterrence”? What “uniquely flexible” options does the new nuclear cruise missile offer? Are we talking about a limited nuclear war with low-yield weapons?

*Answer.* The Long-Range Standoff (LRSO) program is critical for maintaining the range of options currently available to the President for deterring nuclear attack on the United States and its Allies and partners, or defending our vital interests. It provides flexibility to achieve U.S. objectives while limiting the scale of destruction if the President determines a nuclear strike is required. The ability to conduct a nuclear strike is not distinct from the fundamental deterrence role of U.S. nuclear weapons; retaining credible response options strengthens our ability to prevent nuclear attacks from ever taking place. In addition, an effective nuclear deterrent contributes to deterring conventional attack by nuclear-armed adversaries by convincing them they cannot escalate their way out of failed conventional aggression. Sustaining the capability currently provided by the AGM-86B Air Launched Cruise Missile will not lower the nuclear threshold or increase the likelihood of U.S. first-use. Indeed, the United States has long maintained a high threshold for nuclear use together with a diverse range of nuclear explosive yields and delivery means. The use of nuclear weapons would only be considered in extreme circumstances to defend the vital interests of the United States and its allies and partners.

#### QUESTIONS SUBMITTED BY SENATOR TOM UDALL

##### TRUSTED FOUNDRIES

*Question.* A 2015 GAO report found that DOD faces uncertainty about future access to trusted leading-edge microelectronics due to a business change at IBM. I believe New Mexico is part of the solution here. We are already funding efforts to modernize the foundry at Sandia National Labs. New Mexico is also home to a large Intel chip foundry. In April, Intel announced a major nationwide restructuring, with thousands of layoffs. The New Mexico plant will continue to operate, but there is an opportunity for DOD to reach out to Intel and consider options to collaborate. What are DOD’s plans to address trusted foundry concerns? And will DOD reach out to see if Intel can help meet DOD requirements?

*Answer.* The Department of Defense (DOD) conducted an extensive series of reviews and analyses last year to address the IBM foundry sale and its impact on current and future access to trusted, leading-edge microelectronics. Our efforts broadly engaged stakeholders from DOD, the Intelligence Community, Department of Energy (DOE), industry, academia, and other organizations to inform a comprehensive strategy and plan. We have resolved near-term concerns and preserved access to all of the former IBM technologies, now produced by Global Foundries United States 2, LLC. Long term, DOD will transition to an alternative approach that uses trusted and assured microelectronics in order to reduce risk and the reliance upon sole source foundry operations. This new trust model will introduce advanced techniques and processes to protect microelectronics designs and intellectual property while at the same time enabling access to commercial, state-of-the art technology.

While we have engaged Intel in the past, they are currently not interested in being a Trusted Foundry at this time. The company has engaged with several Federal agencies to support broad, high level discussions on alternatives to the Trusted Foundry model, but those engagements are at very early stages. DOD has engaged in the past with Intel and other manufacturing leaders and we intend to continue engaging with industry as we transition to the new trust model for microelectronics.

DOD will remain a strong participant with interagency partners, ensuring collaboration on strategies to address United States Government microelectronics trust and access needs. One example is DOD’s participation with the DOE assessment of future microsystems technology needs and modernization plans for the Sandia National Laboratories’ Microsystems and Engineering Sciences Applications Silicon Fabrication Facility.

##### CYBER THREATS IN A KINETIC ENVIRONMENT

*Question.* Regarding the discussion of creating a unified cyber command. I wanted to say again. The warfighters of the future—special ops, infantry, sailors, marines, or cyber warriors—must be trained to react to cyber threats in a kinetic environment. Last year, I worked to include language that would make this a priority. Will the Department of Defense support this effort to strengthen our warfighters capabilities?

*Answer.* The Department of Defense Cyber Strategy directs that our military forces prepare and be ready to operate in an environment where access to cyber-

space is contested. All of our operational military forces are receiving foundational training enabling them to carry on with their missions while under cyberattack. Substantial efforts are underway to help ensure unencumbered access and freedom of maneuver in cyberspace, continuity of command and control, full situational awareness, and resilience of our forces, all in the face of determined hostile cyber activity in a kinetic environment. This includes the continued integration of cyberattacks into exercises and mission rehearsals at the Service, Combatant Command, and Joint levels, and establishment of additional fallback capabilities.

#### HIGH ENERGY LASER TEST FACILITY

*Question.* The High Energy Laser Test Facility located at White Sands Missile Range is a one-of-a-kind directed energy testing facility in the United States. In light of near peer competitors' interest in such technology, I believe that we need to ensure our advantage in directed energy. How can we ensure that HELSTF's funding is brought back up to the level that OSD recommended in the 2009 OSD report? Can you commit to revisiting that funding decision for HELSTF? (HELSTF is funded at \$2.6M and OSD recommended \$6.4 in their 2009 report)

*Answer.* In 2011, in response to a Test Resource Management Center and the High Energy Laser Joint Technology Office study, the Army transferred the High Energy Laser Systems Test Facility (HELSTF) from the Army Space and Missile Defense Command to the Army Test and Evaluation Command to gain efficiencies and allow divestiture of capabilities no longer needed. This transfer enabled the Army to maximize the use of the facility by reducing duplication of effort, instrumentation, and facilities while providing high quality support/products for DOD acquisition and Science and Technology (S&T) community customers. The 2009 study did recommend \$6.4 million as the annual required funding versus the \$2.8 million that the Army has funded since 2010. However, the efficiencies gained by the command realignment described above as well as additional funding from the Office of the Secretary of Defense (OSD) Central Test and Evaluation Investment Program (CTEIP) and the Test and Evaluation (T&E)/S&T Program (approximately \$12 million over the last 10 years) have continued to keep the instrumentation at the appropriate level. HELSTF remains the Office of the Secretary of Defense-designated site for High Energy Laser testing and is a key asset for all DOD Components in the development of these weapons systems. As new requirements arise, they are addressed by Army, OSD CTEIP, and OSD T&E/S&T resourcing solutions, and the Department will ensure funding is adequate to meet requirements.

#### REMOTELY PILOTED AIRCRAFT TRAINING MISSION

*Question.* The Remotely Piloted Aircraft (RPA) training mission at Holloman continues to grow as the mission requirements and demands for RPA's increases. How does this budget support these increased requirements, and what is our strategy to retain current and future RPA pilots and sensor operators?

*Answer.* The Air Force MQ-9 Program of Record Steady State capacity is 60 combat air patrols (CAPs) per day. However, the Office of the Secretary of Defense directed the Air Force to use OCO funding to support an additional 10 government-owned, contractor operated (GOCO) CAPs, increasing combatant commander capacity to 70. To address force health in the fiscal year 2017 President's Budget request, the Air Force doubled Undergraduate RPA training, funded a third initial qualification training squadron, and kept two operational squadrons, slated for divestiture, through fiscal year 2017. We are also converting to an MQ-9 only fleet in order to reduce training, maintenance and sustainment burdens on our Total Force and streamlining the Air National Guard MQ-9 enterprise to help supplement the Active Duty force. Finally, we are analyzing a number of initiatives under the Culture and Process Improvement Program to normalize MQ-9 operations over the mid- and far-term.

#### SYRIA TROOP LEVELS

*Question.* Are there any future plans to send additional troops to Syria during this calendar year?

*Answer.* The President recently approved sending up to 250 additional troops to Syria to support indigenous counter-ISIL forces, a key component in our approach to defeat ISIL. At this time I have not recommended sending any additional troops beyond the additional 250 to Syria. That said, the Department is constantly looking to build upon success and adapt the military capabilities we are using to defeat ISIL. If it becomes apparent that additional U.S. forces in Syria could deliver strategic affects, I would not hesitate to recommend an increase in those forces.

## MOSUL

*Question.* Does the Department of Defense have adequate resources and confidence in the Iraqi military to respond to a potential humanitarian disaster if the Mosul dam fails? If not, what more can be done to help prepare the Iraqi people and their government for such a possibility?

*Answer.* The Mosul Dam faces a serious risk of catastrophic failure with little warning. A catastrophic breach of the Mosul Dam would result in severe loss of life, mass population displacement, and destruction of the majority of the infrastructure within the projected flood-wave path.

The number and spread of people in need along the 300-mile flood path will likely overwhelm the capacity of the Iraqi government and any one humanitarian aid actor to provide assistance. This suggests a need for an international, coordinated response to help meet potential widespread needs.

The U.S. Government continues to coordinate with the Iraqi government on early warning and education strategies, including early warning systems and communication plans. The United States also continues to encourage donors and non-governmental organizations to prepare for a potential catastrophic failure of the Mosul Dam. Key preparedness activities include flood awareness messages, communications, response planning, and the mapping of priority locations at risk of flooding. The Iraqi military will play a part in the response to any failure of the Mosul Dam, but unlike the U.S. military, the Iraqi military's capability and contribution are very limited given its ongoing fight against the Islamic State of Iraq and the Levant (ISIL) and poor logistics and supply systems. Should the Mosul Dam fail, the U.S. Department of Defense will support the U.S. Agency for International Development (USAID) with its humanitarian response, including with transportation for assessments and urgent life-saving needs.

## SANDIA INFRASTRUCTURE SIMULATION AND ANALYSIS CENTER

*Question.* The Department of Homeland Security currently utilizes a Sandia program called the national Infrastructure Simulation and Analysis Center. This program assesses the technical, economic, and national security implications of infrastructure in terms of protection, risk mitigation, event response, and event recovery. This is a capability, that if expanded for international analysis, that could benefit policy makers and decision makers at the Department of Defense, Department of Energy, State Department, and USAID. Do you believe that this tool would benefit decision makers at the Department of Defense and would you support the expansion of this program for use by other departments to support our interests overseas?

*Answer.* The Department of Defense (DOD) leverages the Department of Homeland Security's (DHS) analytic capabilities to assist with identifying and addressing risk to DOD missions. If DHS expands its analysis work with the National Infrastructure Simulation and Analysis Center to include international analysis, the DOD would explore additional possibilities to partner with DHS to enhance and complement its internal modeling, simulation, and analysis capabilities. The DOD values its existing interagency partnerships, including those with DHS. The DOD recognizes the importance of the reliability and resilience of infrastructure such as power, water, and telecommunications that are outside the purview of DOD, both domestically and overseas. The DOD understands that a failure of supporting infrastructure could jeopardize mission execution.

## SMALL MICRO-SATELLITES

*Question.* How important are small micro-satellites for the Department of Defense's space strategy, and how are you working with private industry to increase access to space via microsattellites? Do you agree that Operational Responsive Space is still an important part of this strategy, and is there a possibility that the Department of Defense could better utilize private infrastructure such as the Spaceport in southern New Mexico?

*Answer.* The DOD sees potential in micro-satellites and recognizes that contributions from private industry can provide new and innovative opportunities to operate to, through and from space. Operationally Responsive Space (ORS) can and does contribute to the overall strategy, especially as a means of engaging with industry. For example, the ORS Office is collaborating with Raytheon Missile Systems and Rincon Research Corp to prototype responsive, semi-autonomous manufacturing of cubeSats using existing infrastructure in Tuscon, AZ.

The form factor of microsattellites and cubeSats can simplify payload integration and could open up the possibility for a wider range of launch providers and platforms that may operate from a spaceport. The Air Force's Rocket Systems Launch

Program and ORS office are making use of state sponsored spaceports, including Spaceport America in New Mexico where ORS has, to date, sponsored four launches.

THIRD OFFSET

*Question.* You recently reached out to Silicon Valley and other hubs of innovation as you touted the Department of Defense's third offset. As you move forward I would like to encourage you to engage with employees and contractors at the National Labs as well. Will you reach out to these employees and private businesses in New Mexico and elsewhere?

*Answer.* As its name implies, Defense Innovation Unit Experimental (DIUx) is just that, an "experiment." We hope to evolve DIUx as a model that captures the engagement practices for DOD to operate in a technology ecosystem by identifying and leveraging novel technology, business practices, and ideas from non-traditional sources as well as providing the technology ecosystem's insights into DOD inventions that may have commercial value. Our current activities in Silicon Valley and the recently announced office in Boston represent the Department's initial tests of this strategy. We hope this experiment proves successful as a model for how the Department can interact with other technology clusters, including the national labs across the country, including New Mexico, to help find and accelerate novel technology adoption that will increase our country's competitive advantage. Thank you for your interest in the DIUx concept and your support of our Nation's defense.

GERMAN AIR FORCE TO DEPART HOLLOMAN AIR FORCE

*Question.* With the recent decision by the German Air Force to depart Holloman Air Force at the end of 2019, there is an opportunity for expansion at the base. Either through a new domestic mission or a training mission with one of our numerous allies. What options are the Department of Defense considering for a new mission at Holloman? Is the Department of Defense reaching out to allies to determine if there is interest in a training mission at Holloman? As the United States continues to pivot towards the Pacific, is there an opportunity for a partner such as Japan or the Republic of Korea to take on this opportunity? Both partners are expanding their Air Forces and require access to airspace which is diminishing in their countries due to commercial air traffic, while airspace in New Mexico remain plentiful. Would you agree that the United States and its allies would benefit from such close training and coordination?

*Answer.* The Department of Defense values training partnerships with our allies and partners, and we will continue to seek new opportunities that are in our mutual interests. I agree that the United States and our allies and partners benefit from close training and coordination. Since we received the official notification from Germany on the departure of the German Air Force, we have not yet had the opportunity to match Holloman's facilities with a requirement from another ally or partner nation or with a new domestic mission. We are in very preliminary requirements discussions with allies and partners on this matter.

As for Japan and the Republic of Korea, neither country has expressed an interest in allocating aircraft to new missions away from their homelands as this would require taking operational assets away from homeland defense. However, as both nations procure new aircraft in accordance with their modernization plans, their training needs might present an opportunity for training in the United States, possibly at Holloman Air Force Base.

QUESTION SUBMITTED TO GENERAL JOSEPH F. DUNFORD, JR.

QUESTION SUBMITTED BY SENATOR PATRICK J. LEAHY

OPERATIONAL USE OF THE RESERVE COMPONENT

*Question.* I am proud that the 86th Infantry Brigade Combat Team of the Vermont National Guard has been selected by the Army to associate with the 10th Mountain Division in the new pilot program, building on a relationship that has been strong for many years. This association is in the spirit of the recommendations on the Commission on the Future of the Army that Senator Graham and I proposed 2 years ago, and the concept of an operational reserve. How important is keeping the Reserve Components operational for the future? How can we better plan for using units from the Reserve Component for predictable missions?

*Answer.* It is absolutely essential that the Reserve Component (RC) remain operational in the future. With constrained defense budgets, reductions in military end strength, and the increase of transregional, multi-functional, and multi-domain

threats, the Reserve Components are indispensable to their Service and are a major part of the Total Joint Force.

Congress' support to programs like the Army's Associate Unit Program significantly adds to our joint readiness and joint warfighting capability, and our ability to use Reserve Component units for predictable missions.

SUBCOMMITTEE RECESS

Senator COCHRAN. Until then, the subcommittee will stand in recess.

[Whereupon, at 12:06 p.m., Wednesday, April 27, the subcommittee was recessed, to reconvene subject to the call of the Chair.]