

DEPARTMENT OF DEFENSE APPROPRIATIONS
FOR 2016

HEARINGS
BEFORE A
SUBCOMMITTEE OF THE
COMMITTEE ON APPROPRIATIONS
HOUSE OF REPRESENTATIVES
ONE HUNDRED FOURTEENTH CONGRESS
FIRST SESSION

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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR 2016

THURSDAY, MARCH 19, 2015.

UNITED STATES EUROPEAN COMMAND

WITNESS

**GENERAL PHILIP M. BREEDLOVE, U.S. AIR FORCE, SUPREME ALLIED
COMMANDER EUROPE (NATO), AND COMMANDER, U.S. EUROPEAN
COMMAND**

OPENING STATEMENT OF CHAIRMAN FRELINGHUYSEN

Mr. FRELINGHUYSEN. Meeting will come to order. This morning the committee will hold a hearing on the posture of the United States European Command.

First I want to recognize Mr. Visclosky for a motion.

Mr. VISCLOSKY. Mr. Chairman, I move that those portions of the hearing today which involve classified material be held in executive session because of the classification of the material to be discussed.

Mr. FRELINGHUYSEN. So ordered.

Our sole witness this morning is General Philip Breedlove, United States Air Force. He is Commander of the United States European Command in NATO and the Supreme Allied Commander Europe. General Breedlove is a command pilot, a warrior who is superbly prepared to lead USEUCOM at this perilous time in history.

General Breedlove, welcome. It is a real pleasure to have you here. Thank you for your 37 years of service to our Nation.

General, I am sure that when you assumed command in the spring of 2013 you did not expect to encounter some of the political and military situations you see today. After decades of keeping the peace, EUCOM faces threats on many fronts. Your command must face down naked Russian aggression from the Black Sea to the Baltic. You must also focus your resources on supporting military intervention against the Islamic State by assisting CENTCOM to support the so-called moderate Syrian opposition and degrade and ultimately destroy ISIL. And to keep an eye out as well for the growing role of the Qods Force in Iran and around the world. And, may I say, I suggest keeping an eye on the issue of returning fighters.

Finally, you play a key role in assisting CENTCOM and AFRICOM with crises in the Middle East and Africa. In short, your responsibilities are not limited to the critical role you play in helping to stabilize Europe.

Last week, as you know, General, eight members of this committee traveled to Eastern Europe, the Mediterranean, and North Africa, including Cypress and Ukraine, in order to see the situation firsthand, meeting with our embassy people, our teams, as well as the leaderships of those countries.

In Egypt, we discussed military equipment from the United States that has been paid for but not delivered. In Cypress, we explored opportunities for the United States in that country to develop a closer mil-to-mil relationship. In Ukraine, we saw the invasion of a sovereign country by Russian military forces acting through surrogates or on their own. So we speak with you today with the benefit of seeing firsthand some of the challenges you face every day.

Of course, EUCOM has received Army, Air Force, and other assets in recent months to expand training and activities with our allies that demonstrate resolve in the face of Russian aggression. At the same time, events elsewhere, in Africa, the Middle East, have necessitated a reassessment of the allocation of U.S. forces worldwide. Notwithstanding the recently arrived troops and assets, U.S. forces allocated to EUCOM have been declining in recent years. Gone are the days of two Army corps with four divisions and two calvary regiments.

General, given the challenges your command faces, any further reduction of U.S. combat forces in EUCOM will receive very careful scrutiny from our committee.

General, we will ask you to present your summarized statement in a moment, but first may I recognize my ranking member, Mr. Visclosky, for any comments he may wish to make.

REMARKS OF MR. VISCLOSKY

Mr. VISCLOSKY. Mr. Chairman, simply thank you for holding the hearing.

General, for your service, and look forward to your testimony. Thank you very much.

Mr. FRELINGHUYSEN. General, good morning. A warm welcome to you. Thanks for the great job you are doing, and all the men and women you represent.

General BREEDLOVE. Thank you, Mr. Chairman.

[The written statement of General Breedlove follows:]

**HOUSE APPROPRIATIONS COMMITTEE
DEFENSE SUBCOMMITTEE**

**STATEMENT OF GENERAL PHILIP BREEDLOVE
COMMANDER
U.S. FORCES EUROPE
March 19, 2015**

**HOUSE APPROPRIATIONS COMMITTEE
DEFENSE SUBCOMMITTEE**

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I. Introduction

It is an honor for me to lead the Soldiers, Sailors, Airmen, Marines and Civilians of the U.S. European Command (EUCOM). Those assigned and deployed from the European theater sent into harm's way, in Afghanistan and elsewhere, are particularly within the thoughts of the Command. I want to thank this Committee for all of the support it has offered them.

EUCOM has experienced dramatic changes in the security situation on the European continent over the last 12 months, forming a new European security environment. These changes have significant ramifications for U.S. national security interests and those of our European Allies and partners. As a result, we are assessing the threat to U.S. and NATO Allies in the theater and beyond. Even as we continue to lean forward with our NATO Allies and partners in response to the conditions in this new environment, fully addressing these growing challenges and their long-term implications requires a reformulation of the U.S. strategic calculus and corresponding resourcing levied towards Europe.

In the statement I submitted to this Committee last year, I described in detail how important our NATO Allies and non-NATO partners in Europe are to American safety and security – their importance is even greater today. EUCOM must be able to assure, deter, and defend against Russian aggression; support ongoing and future contingency operations; counter transnational threats; and help build our partners' capability to help us accomplish these missions, thereby enhancing regional and global security.

Our many shared values, interests, and economic interdependence with Europe provides unique opportunities and assets for collective security as well as global security cooperation. The United States depends on our willing and capable Allies and partners throughout Europe to work with us to fully defend our national security interests and to respond to crises around the world. Time and again, our Allies and partners in Europe have proven essential to U.S. military operations by allowing us access, including bases, transit, and overflight rights for U.S. forces as well as providing enhanced legitimacy and operational capability through the participation of Ally and partner nation military forces in undertakings in Europe, around Europe and often far from Europe.

Maintaining our strategic Alliance with Europe is vital to maintaining U.S. national security and is not to be taken for granted. We must reassure our European Allies and partners through the United States' commitment to NATO and the credibility of that commitment

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fundamentally rests upon the capabilities, readiness, and responsiveness of U.S. military personnel stationed in Europe. The forces assigned to EUCOM are the U.S.'s preeminent forward deployed force and fulfill the United States' primary treaty obligation to NATO. Our permanent presence also allows us to maximize the military capabilities of our Allies. Permanently stationed forces are a force multiplier that rotational deployments can never match.

EUCOM must be a stabilizing force on multiple fronts. Nations on Europe's Southern flank are concerned the focus on Eastern Europe may draw attention and resources away from their region, allowing for an unmonitored flow of foreign fighters, economic and political refugees, and unchecked illicit trafficking of goods and humans from an arc of instability stretching across large parts of northern Africa through the Middle East. In the Levant, persistent threats from other countries and non-state actors drives continued security concerns in Israel.

Multiple ongoing conflicts in the Middle East and Africa also require EUCOM to use its limited resources to support missions occurring in the U.S. Central Command (CENTCOM) and U.S. Africa Command (AFRICOM) areas of responsibility. EUCOM works closely with our bordering Combatant Commands to ensure there are no seams as we address issues crossing geographic boundaries, supporting CENTCOM and AFRICOM operations to protect U.S. national interests. Each of these security situations reinforces the importance of EUCOM and NATO to our long-term vital national security interests.

After years of force structure and other personnel reductions, fewer than 65,000 U.S. military personnel remain permanently stationed in Europe to secure and advance U.S. national interests from Greenland to Azerbaijan and from the Arctic to Israel. The size of our military presence forces difficult decisions daily on how to best use the limited resources we have to assure, stabilize, and support. I ask you for your support and favorable consideration of the U.S. role in addressing the new European security environment and helping me set the theater. As the Commander of EUCOM, Supreme Headquarters Allied Powers Europe (SHAPE) and Allied Command Operations for NATO, I support the goal of a Europe that is whole, free, at peace, and prosperous. It is with this in mind that I consider Europe's current security situation.

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II. Assessing the Threat

As mentioned, EUCOM is working within the framework of a new European security environment, focused on countering three primary security threats: Russian aggression in the East, foreign fighter flow between Europe and the Levant, and transnational threats stemming from North Africa.

A. Eastern Flank: Russia and Periphery

For almost two decades, the United States and Europe have engaged with Russia as a partner, seeking to build relationships militarily, economically, and culturally. In 1994, Russia became a Partnership for Peace member with NATO. That same year, Russia, the United States, and the United Kingdom signed the Budapest Memorandum, reaffirming commitments made by all parties under the Helsinki Final Act and the UN Charter to “respect the independence and sovereignty and the existing borders of Ukraine.” Under the 1997 Founding Act, NATO made a political commitment that, “in the current and foreseeable security environment,” the Alliance would carry out its collective defense and other missions without “additional permanent stationing of substantial combat forces.” In 2009, the United States sought to “reset” its relationship with Russia, which had been damaged by the 2008 Russian invasion of the Republic of Georgia. During this period, the Department of Defense made security and force posture determinations significantly reducing European force structure based on the assumption that Russia was a partner.

Despite these and many other U.S. and European overtures of partnership, Russia has continued to view its own security from a zero-sum point of view. Since the beginning of 2014, President Putin’s Russia has abandoned all pretense of participating in a collaborative security process with its European neighbors and the international community. Instead, Russia has employed “hybrid warfare” (which includes regular, irregular, and cyber forms of war as well as political and economic intimidations) to illegally seize Crimea, foment separatist fever in several sovereign nations, and maintain frozen conflicts within its so-called “sphere of influence” or “near abroad.” Undergirding all of these direct approaches is the pervasive presence of the Russia propaganda machine, which inserts itself into media outlets globally and attempts to exploit potential sympathetic or aggrieved populations.

Russia uses energy as a tool of coercion. Many former-Soviet bloc and Eastern and Central European states have long been concerned about Russia’s intentions in Europe and they

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consider the Ukraine crisis the latest validation of their concerns. Recent Ukrainian and Russian energy negotiations show how Russian coercion threatens broader European cooperation as individual countries must weigh their own security and economic concerns. Russia's coercion using energy has grown along with Russia's threats and outright use of force.

As a result, there are growing security concerns among Central and Eastern European countries that are members of NATO and the European Union or are seeking closer ties with the trans-Atlantic community. Having already experienced the use of Russian military force in the 1990s and in 2008, Georgia is especially threatened by Russian occupation of Abkhazia and South Ossetia. The Baltic States have demonstrated their concern by increasing military interaction with U.S. and NATO forces, which has resulted in more U.S. and Allied forces in NATO's Baltic Air Policing mission and the deployment of U.S. rotational ground forces to the Baltics and Poland to foster interoperability through training and exercises. U.S. Special Operations Forces training events were also initiated throughout the Baltics and Eastern Europe at the request of the host nations. We must continue to work with NATO to provide enduring support to the security of our Allies and partners in this area.

Russia views Ukraine as part of its sphere of influence, regardless of the views of the Ukrainian people. While Russia's aggressive actions in Ukraine are the most current manifestation in a pattern of continuing behavior to coerce its neighbors in Central and Eastern Europe. Beyond its actions in Georgia and Ukraine, other examples of this pattern are suspending participation in the Conventional Armed Forces in Europe Treaties; the ZAPAD 2013 snap exercise along the borders of the Baltics and Poland; intercepts of U.S. aircraft and shadowing of U.S. ships in international airspace and waters; basing Russian fighter aircraft in Belarus; threats to deploy nuclear-capable Iskander-M missiles in Kaliningrad; and pressure on former Soviet states through the manipulation of prolonged, "frozen" conflicts.

B. Eastern Flank: Vulnerability of NATO Partnership for Peace (PfP) Countries

As U.S. partners, Georgia, Moldova, and Ukraine face a different security challenge from Russia than that facing NATO Allies. All three countries have implemented political and economic reforms to advance democracy and integrate with Europe; however, their ability to make further progress is significantly constrained by Russian interference and pressure. Russia occupies portions of their territory with its military forces, wields economic leverage and energy dependence as coercive instruments, exploits minority Russian populations to serve its interests,

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interferes in democratic processes, engages in bribery and coercion of government officials, and generates a constant propaganda deluge.

Even as these three countries face severe threats to their sovereignty and territorial integrity, they continue to make meaningful contributions to international security. Since 2010, Georgia has rotated 14 battalions to Afghanistan in support of the International Security Assistance Force (ISAF) and three additional battalions in support of the RESOLUTE SUPPORT mission, and is currently the second largest contributor after the U.S. Ukraine has been the largest provider of vertical lift capability to U.N. peacekeeping operations around the world and has also contributed troops and resources to ISAF, NATO's Kosovo Force (KFOR), and NATO's maritime operations, and Moldova contributes a platoon to KFOR.

In addition to conducting expeditionary operations and while having differing objectives regarding the scope of their integration with NATO, all three countries strive to develop military forces meeting NATO standards and interoperability requirements; however, their efforts face a number of challenges, as all three countries require deep institutional reforms to efficiently generate, organize, equip, and sustain their armed forces. They must also continue and accelerate their transition from Soviet-era systems to modern, NATO-interoperable systems and equipment. These countries have severely limited resources available to address these requirements. Thus, U.S. security assistance to train, advise, and equip the national security forces of Georgia, Ukraine, and Moldova is absolutely essential.

Recent Russian activities are forcing our partners to reevaluate their strategic requirements, including reassessing the relative importance of their ability to contribute toward NATO or U.N. operations. These countries must balance the national responsibility of their armed forces to defend their own sovereignty and territorial integrity with that of contributing to regional and global security beyond their borders. For many years, a partner's contribution to regional security was measured, at least in part, by its force contribution to international peacekeeping missions. Now that these nations face an even more aggressive Russia, their ability to protect their own borders and enforce their own sovereignty is understandably more urgent than acting as a force provider for peacekeeping missions abroad.

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C. Eastern Flank: Russian Use of Frozen Conflicts as a Foreign Policy Tool

Describing the prolonged conflicts in states around the Russian periphery as “frozen” belies the fact that these are on-going and deadly affairs. In Georgia, there are conflicts in Abkhazia and South Ossetia. A clear purpose behind Russia’s invasion of Georgia and its continued occupation of Georgian territory is to prevent Tbilisi from pursuing its rightful and legitimate intentions to become a full member of the European and transatlantic communities. Toward that end, Russia has signed a “treaty” with Abkhazia and is pushing for another with South Ossetia to increase its influence while hampering Georgia’s Euro-Atlantic integration. In Moldova, Russian forces have conducted supposed “stability operations” since 1992 to contain the conflict in Transnistria. In fact, Russia deliberately and actively perpetuates these conflicts by manipulating its support to the participants, while engaging in international diplomatic resolution efforts only to the extent necessary to prevent the resumption of all-out violence.

Russia uses these conflicts to maintain its influence and deny these states’ ability to make their own foreign and security policy choices and chart their own futures. Those pretending to lead these Russian-created quasi-states rely on Russia to maintain the *status quo* and therefore, cannot stray far from Russia’s preferences. These unresolved disputes may not represent active war, but impede the democratic development of the concerned states. Just as the oppressed nations of the Warsaw Pact served as strategic buffers to the Soviet Union, so the current arc of frozen conflicts is part of a security buffer for a modern, paranoid Russia. This fits into a greater “buffer policy” sought by Russia, complemented by other dubious—yet aggressive—claims, such as its militarization of the Arctic and its military exercises on the Kuril Islands over its dispute with Japan.

D. Western Balkans: Challenges and Unresolved Issues

Significant challenges to peace and prosperity with the Western Balkans persist. EUCOM engages in a number of cooperative endeavors that provide an area of common interest, building confidence and good relations between former warring factions to reduce the likelihood of renewed fighting in the region. The Balkans Medical Task Force is one specific example of how EUCOM helps foster such cooperation by assisting the Balkan states in building a regional, deployable humanitarian assistance and disaster response capability.

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E. Southern Flank: Turkey as a Lynchpin to Security in the Black Sea

Persistent instability in the Levant and beyond remains a top U.S. and European national security concern and threatens U.S. interests throughout Europe and the homeland. ISIL controls territory just across NATO's southern border and it actively recruits and trains foreign fighters destined to return to their countries of origin. Extremist actors, exemplified by ISIL, have an inordinate impact on Europe's periphery. The Syrian crisis is destabilizing the entire region, and the regional repercussions are likely to persist for years to come. Israel faces a more complex environment, complicating their political and military calculus and their need for U.S. support.

Turkey is in the unenviable position of having to hold NATO's Southern Flank. Turkey, and important NATO ally, is understandably very concerned by the ongoing crises in Syria and Iraq, which are generating significant security, political, economic, and humanitarian challenges across the region. These challenges include the influx of refugees and foreign terrorist fighters, and increased terrorist activity. EUCOM continues to work with Turkey and CENTCOM to address these multiple threats.

Finally the flow of returning foreign terrorist fighters to Europe and the United States in both the near- and mid-term poses a significant risk, including to our forward based forces in Europe. Foreign terrorist fighters are active in multiple conflict zones, gaining experience and contacts that could lead them to conduct terrorist attacks after returning home. Actively encouraged by ISIL, returned foreign fighters are mounting so-called "lone wolf" attacks. This problem will grow in scope as the flow of returning individuals increases over time.

F. Southern Flank: Instability in the Middle East and North Africa Region

The security environment on Europe's Southern Flank, broadly defined as the Middle East and North Africa, is likely to remain unstable and likely grow more complex for the next decade or longer. This environment is characterized by political chaos; ethnic, tribal, and religious tensions; pervasive corruption; and weak security institutions. These factors have created conditions that allow illicit trafficking, to include the smuggling of narcotics, humans, and weapons into Southern Europe and beyond. Transnational criminal organizations continue to take hold and further destabilize the region, posing a growing economic and security risk to countries on Europe's Southern Flank. The threat of highly contagious diseases spreading through unmonitored personnel movements and illicit trafficking channels, such as the Ebola virus, represent another potential threat.

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The countries of southern Europe are currently facing massive migration flows from Northern Africa. In August 2012, Greece began an operation to curb and tackle illegal migration into its country. In October 2013, Italy began a similar operation to patrol the Strait of Sicily and the southern Mediterranean following the death of more than 350 African refugees off the Italian island of Lampedusa. Since its start, Italy has intercepted or rescued more than 100,000 illegal migrants while 3,000 have drowned in the Mediterranean Sea. Dealing with illegal migration adds to the burdens of Allied Navies, particularly Italy's, and pulls them from other missions. Due to concerns raised by European countries along the Mediterranean Sea, FRONTEX launched Operation ORION TRITON in October 2014 to help nations cope with the illegal migration crossings from North Africa and the Middle East. Although most European countries do not perceive the ongoing situation in North Africa as a direct threat to their national security, the majority views the increased illegal migration flow as a serious economic and humanitarian problem. EUCOM continues to work with our Allies on this issue.

Continued tensions between Israel and the Hamas-led government in Gaza resulted in open warfare beginning in June 2014 leading Israel to launch Operation PROTECTIVE EDGE. Scores of infiltration tunnels were found and between June and September 2014 over 2,500 rockets were launched from Gaza into Israel. Fortunately, the Iron Dome system effectively neutralized many of these rockets. EUCOM monitors the situation between Israel and Hamas closely, consulting with Israel and providing logistical support.

G. Arctic Region

The Arctic region is a growing strategic area of concern from both an environmental, resource, and security perspective. Environmentally, changing climate conditions will allow the Northern Sea Route and Northwest Passage to open for longer periods each year, meaning greater access to the Arctic. Less ice coverage will lead to increased shipping traffic and attract more industry and tourism. From a resource perspective, we seek to work cooperatively to ensure exploration and extraction does not lead to conflict. From a security perspective, Russia's behavior in the Arctic is increasingly troubling. Their increase in stationing military forces, building and reopening bases, and creating an Arctic military district to counter an imagined threat to their internationally undisputed territories does not fit the direction or interests of the seven other Arctic nations. Despite Russia's increasing militarization of the Arctic, EUCOM continues to work with our Arctic public and private partners to create a secure and stable region.

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This is critical to safeguarding U.S. national interests, insuring the U.S. homeland is protected, and for nations working cooperatively to address challenges through our sponsorship of the Arctic Security Forces Roundtable and combined Arctic specific exercises like ARCTIC ZEPHYR.

III. Reassuring our Allies and Deterring Russian Aggression

A. Operation ATLANTIC RESOLVE

Operation ATLANTIC RESOLVE uses U.S. access and strategic reach to develop a unified response to revanchist Russia. EUCOM continues to take positive steps to reassure our Allies along NATO's eastern flank and to deter potential Russian aggression against our NATO Allies and partners. Since the beginning of Russia's intervention in Ukraine, EUCOM's strategy has continued to evolve and demonstrates the commitment of the United States to NATO's overarching principle of collective defense. The cornerstone of EUCOM's strategy is physical presence. Coupled with our visible commitment to maintain capabilities, readiness, responsiveness and our strategic level messaging, our presence demonstrates, to friend and foe alike, our absolute commitment to the sovereignty and security of every Ally.

The credibility and effectiveness of our response to Russian aggression in the East and growing threats in Southern Europe depend not only on the operational scale and geographic scope of our operations, but also their persistence and longevity. A temporary surge in rotational presence, for example, will not have lasting effect unless it is followed by the development and fielding of credible and persistent deterrent capabilities. Forward deployed air, land, and sea capabilities permits the U.S. to respond within hours versus days as crises emerge. We must follow our near-term measures with medium-term efforts to adapt the capabilities and posture of United States, NATO, Allies, and partners to meeting these new challenges. We must accelerate this adaptation because we now face urgent threats instead of the peacetime environment previously anticipated. NATO and our European Allies have recognized the absolute requirement to effectively counter Russian coercive pressure in the East as well as urgent threats in the South.

NATO has adopted the Readiness Action Plan (RAP) designed to meet quickly emerging threats emanating from both NATO's eastern and southern flanks. The RAP features forces that can deploy in days – not weeks, an improved command and control capability (including forward

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headquarters), and the regular presence of NATO rotational forces in Eastern Europe for exercises and training. U.S. support to the RAP will be essential to its long-term success. Our European Allies have already offered to serve as primary contributors of land forces to the envisioned Very High Readiness Joint Task Force (VJTF), but U.S. participation with key enablers is critical to Alliance cohesion and capability. EUCOM is also responsible for implementing other key aspects of our support to the RAP, such as maintaining continuous presence in the East, enhancing the capabilities of Multinational Corps North East, and the establishment of a NATO command and control presence on the territories of Eastern Allies.

1. The Baltics and Poland

As a response to events in Ukraine, EUCOM augmented scheduled multinational and joint exercises and deployments to provide a near-continuous air, land, and sea presence in the Baltic States and Poland, assuring them of the U.S. commitment to NATO. The intent of our actions is to demonstrate the ability and resolve to act together as an Alliance in the face of the challenges from Russia, while avoiding escalation. Our continuous presence and engagement activities in the Baltics and Poland fall under the umbrella of Operation ATLANTIC RESOLVE.

U.S. rotational force to the Baltics began on March 6, 2014, when the United States deployed an additional six F-15Cs to augment the four already in Lithuania, fulfilling a NATO Baltic Air Policing peacetime requirement to have quick reaction interceptor aircraft “ramp-ready.” Poland took over the Baltic Air Policing mission on May 1, 2014 with augmentation from the United Kingdom, Denmark, and France. Polish and British aircraft operated from Siauliai Air Base in Lithuania, Danish aircraft from Amari Air Base in Estonia, and French aircraft from Malbork Air Base in Poland. This pattern of enhanced Baltic Air Policing continues with four-month rotations. Simultaneously, the United States established a persistent flight training deployment in Poland, consisting of either fighter or transport aircraft. These deployments continue to be a method to increase allied force interoperability as well as provide assurance to Poland and other regional Allies. Also, beginning in March 2014, United States Air Forces Europe (USAFE) began providing air-to-air refueling support to NATO AWACS aircraft conducting operations along NATO’s eastern flank.

At the end of April 2014, the U.S. Army’s 173rd Infantry Brigade Combat Team (Airborne) quickly deployed company-sized contingents of U.S. paratroopers to Poland, Latvia, Lithuania, and Estonia to begin expanding land forces training. These deployments established a

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persistent U.S. military presence in these countries and demonstrated U.S. assurance and a commitment to Article 5. These exercises, which came at the request of the host nations, work to improve interoperability through small unit and leader training. In October, the 1st Brigade, 1st Cavalry Division (1/1 CD) out of Fort Hood, Texas, conducted a Relief in Place (RIP) with units of the 173d in the Baltic States and Poland. Since assuming the mission from the 173d, 1/1 CD has participated in exercises, such as PLAYGROUND and IRON SWORD. Most recently, Soldiers from the 2nd Cavalry Regiment stationed in Germany have deployed to the Baltics and Poland, continuing our persistent reassurance to our NATO Allies. Additionally, USAFE elements deployed to Poland to conduct bi-lateral training with the Polish Air Force and rotations will continue through 2015.

In 2014, beyond previously scheduled exercises, United States Special Operations Forces expanded the number and frequency of Joint Combined Exchange Training (JCET) events in the Baltic States and Poland. Special Operations Command Europe (SOCEUR) has maintained a near continuous presence in the Baltic States and Poland from June 2014 to the present. These training deployments have proven invaluable for our special forces, with indirect benefits for their Allied counterparts. Additionally, EUCOM forces conducted 67 other significant military-to-military engagements with the Baltic States and Poland from April to October 2014.

2. Romania and Bulgaria

Romania and Bulgaria continue to be steadfast U.S. Allies. Access to training areas and transit locations in these nations provide a basis to send a strong signal to Russia, while forging stronger bilateral working partnerships. Romania remains a key Ally, offering tremendous support to ISAF's retrograde from Afghanistan and the RESOLUTE SUPPORT Mission by allowing U.S. and NATO forces use of its base in Mihail Kogalniceanu (MK). MK is a key node for multi-modal operations and an ideal example of the bilateral cooperation and strategic access forward deployed forces in the European theater provides.

Romania has offered to host a new Multinational Division Headquarters. Bulgaria has committed to play a greater role in NATO and European defense by 2020, and made contributions to our efforts in Afghanistan. These offers demonstrate Romanian and Bulgarian resolve to be key Allies in deterring Russian aggression and building a stronger eastern flank. In Romania, Bulgaria and Georgia, the Marine Corps' Black Sea Rotational Force provides EUCOM with a limited land-based and contingency response force in the Region, while

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additional rotational forces from the U.S. Army will come into Romania and Bulgaria this summer.

Romania's cooperation on such areas as missile defense, the RESOLUTE SUPPORT Mission, and Afghanistan retrograde, and Bulgaria's work to expand Alliance and bilateral use of the Novo Selo Training area, are positive contributions to regional and Alliance Security.

3. Georgia, Moldova, and Ukraine

Georgia, Moldova, and Ukraine continue to offer significant opportunities for cooperation, furthering both regional security, and in some cases, acting as willing and capable partners in coalition operations. In Georgia, NATO and the U.S. have long invested in improving defensive capabilities, continuing multinational exercises that contribute towards both enhanced capability and deterrence efforts in the region. In Ukraine, we have increased our security assistance in response to the crisis, committing over \$118 million in 2014 to help Ukrainian forces better monitor and secure their borders and operate more safely and effectively, and preserve Ukraine's territorial integrity. We also continue to conduct planned exercises such as Rapid Trident to increase interoperability among Ukraine, U.S., NATO and Partnership for Peace member nations. The most recent Rapid Trident iteration in September 2014 consisted of multinational battalion-level field training exercise and saw the participation of 15 countries with approximately 1,300 personnel. An upcoming train and equip program for its security forces demonstrates U.S. resolve towards increasing Ukrainian capacity to provide for its internal and territorial defense.

Despite increasing Russian presence in the region, EUCOM has increased U.S. maritime presence in the Black Sea through Passing Exercises (PASSEXes) and other bilateral and multinational exercises. Since April 2014, U.S. Naval Forces Europe (NAVEUR) has maintained a monthly periodic presence in the Black Sea, and led the Baltics Operations exercise in the Black Sea with numerous Allied and partner nations. Despite Russia's increased and aggressive posture in the region, NAVEUR also conducted exercise SEA BREEZE in September 2014 with multinational support from Turkey, Romania, and Georgia. Active discussions are underway for next year's iteration of SEA BREEZE, which will continue our engagement with the Ukrainian Navy and other Black Sea maritime partners.

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B. European Reassurance Initiative

I would like to thank this committee for supporting the European Reassurance Initiative (ERI). Your support directly enables EUCOM's ability to strengthen its posture along NATO's eastern flank in order to demonstrate commitment to our NATO Allies, and deter further Russian aggression. The ERI will provide temporary support to bolster the security of NATO Allies and partner states in Europe, enable adjustments to U.S. defense posture along NATO's eastern flank, and maintain momentum in conducting operations to demonstrate our commitment to our European Allies and partners. ERI funds will enable the development of infrastructure at key locations in the east to support exercise and training activities for both the U.S. and NATO, as well as support contingency operations. Additionally, ERI will fund improvements to airfields in Eastern and Central Europe along with improvements at training ranges and operations centers. Finally, our plan also includes enhancing available prepositioning, focused on the addition of a rotational Armored Brigade Combat Team set and related assets into several NATO Member nations.

C. Building Partnership Capacities (BPC)

Congressional support over the past several years enabled EUCOM to accelerate and expand efforts to build capacity of Eastern European Allies and partners to contribute to operations in Afghanistan. With U.S. training and equipment, these countries made substantial strides in developing NATO-interoperable capabilities to conduct special operations, intelligence analysis and exploitation, counter improvised explosive devices, coordinate close air support, and maneuver in combat. They brought these capabilities to bear in support of ISAF, further developing their interoperability and gaining experience on the battlefield in Afghanistan now in support of NATO's RESOLUTE SUPPORT mission in Afghanistan.

Even prior to the recent events in Ukraine, EUCOM was examining ways to preserve interoperability gains and expeditionary capability following ISAF. EUCOM launched our first "post-ISAF" program in 2014, implementing the Secretary of Defense's 2012 decision to reinvigorate U.S. land forces participation in the NATO Response Force (NRF). The 1st Armor Brigade Combat Team, 1st Cavalry Division (1/1 CD ABCT), based in Fort Hood, Texas, began its 12-month mission as the U.S. contribution to NRF in January 2014. In May 2014, the Brigade deployed 2nd Battalion, 5th Cavalry Regiment (2-5 CAV) to Germany to exercise with our Allies and partners. While here, 2-5 CAV conducted Exercise COMBINED RESOLVE II at

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the U.S. Army Europe's (USAEUR) Joint Multinational Training Command, which trained 1,451 personnel from 13 countries and helped to enhance NRF interoperability and readiness.

The end of ISAF and the events in Ukraine require the U.S. to shift the focus of our foreign military training and equipping programs preparing Allies and partners for deployment to Afghanistan, to restoring and/or building Ally and partner nation capability to address the challenges of hybrid warfare and to territorial defense. However, the BPC authorities and funding available to EUCOM to equip and train foreign military forces are largely limited to preparing forces for counter-terrorism and deployment to Afghanistan. EUCOM needs continued assistance from Congress to provide adequate funding under existing authorities, to build partner capacity and address the complex challenges of the new European security environment.

For example, Section 2282 and other authorities have been invaluable in providing Allies and partners with the equipment needed to deploy to Afghanistan. Much of this equipment – such as night vision goggles; communications; counter-improvised explosive devices; and intelligence, surveillance, and reconnaissance (ISR) systems – is equally relevant to joint combined arms warfare. With the end of ISAF, our Allies and partners are bringing much of this equipment home. To ensure the capabilities we have helped build are enduring and available to meet the urgent challenges we now face, the U.S. needs to be prepared to assist these countries, as appropriate, with sustainment of U.S.-provided systems. The only U.S. government program with this ability is Foreign Military Financing (FMF), which has been reduced for the EUCOM AOR (not including Israel) by more than 50% since FY10. Congressional support for an increase in FMF for the Europe and Eurasian region would greatly assist in helping to address this sustainment challenge. Additionally, to facilitate and enable our Allies and partners to preserve capabilities, there is a need for authorities that allow for multilateral Foreign Military Sales (FMS) to support NATO Smart Defense and pooling and sharing initiatives. The U.S. benefits from a Europe that is whole, free, at peace, and prosperous. Building Allied and partner capability to provide for their own national defense, as well as to deploy in support of global stability and security, will sustain these substantial benefits for the United States.

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IV. Stabilizing the Middle East and North Africa**A. U.S. Support to Israel**

Israel has witnessed a deterioration of security along its borders over the last several years. Spillover from the Syrian civil war, continued threats from Hezbollah rockets, and ISIL pose a threat to the stability of Israel and the entire region. ISIL has especially used violence in an attempt to impose their self-proclaimed religious authority and political control over the Middle East. Given this situation, it is feasible that, with limited warning, war could erupt from multiple directions within the Levant with grave implications to Israeli security, regional stability, and U.S. security interests.

EUCOM primarily engages with Israel through our Strategic Cooperative Initiative Program and numerous annual military-to-military engagement activities. These engagements strengthen both nations' enduring ties and military activities. EUCOM chairs four bilateral and semiannual conferences with Israel. These conferences address planning, logistics, exercises and interoperability. EUCOM also supports the Joint Staff's bilateral engagements, including meetings at the highest levels within the Department of Defense. The U.S.-Israel exercise portfolio includes five major recurring exercises and as a result of continued engagement, U.S.-Israeli military and intelligence cooperation relationships have never been closer or our joint exercises more robust. Through these engagements, our leaders and staff maintain uniquely strong, frequent, personal, and direct relationships with their Israeli Defense Force counterparts.

EUCOM diligently works to strengthen our relationship with Israel, which includes \$3.1 billion in annual FMF, support for Israel's layered-missile defense program—including the Iron Dome and David's Sling systems, and the approval to release advanced military capabilities, including the F-35 and the V-22 aircraft. Finally, EUCOM works closely with CENTCOM to keep abreast of all emerging threats that may cross into EUCOM's AOR.

B. Countering Threats along the Southeastern Flank

In August 2014, the U.S. Departments of Defense and State, in close consultation with the Government of Iraq, formed a task force to bolster the resupply of lethal aid to Kurdish Peshmerga security forces in northern Iraq. EUCOM has supported CENTCOM by facilitating the integration of European forces and efforts into the larger CENTCOM coalition. EUCOM led the European resupply effort by soliciting, coordinating, and transferring donated arms, ammunition, and material from a multitude of European Allies and partners. By early October

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2014, over two million pounds of donated lethal aid had been delivered to the Kurdish Regional Government via 45 airlift missions to Iraq. The vast majority of these donations and a significant portion of the aircraft were provided by European nations under the direction of EUCOM. These efforts are expected to last through 2015.

EUCOM has also led numerous interactions between U.S. interagency partners, the Custom and Border Protection Agency, and the Drug Enforcement Administration. These actions have focused on countering transnational threats, including trafficking of persons and illicit substances, as well as prosecution actions to build partner capacity. EUCOM works in conjunction with the Department of State to monitor and thwart the flow of foreign fighters going to and from Syria and the Levant, dismantle extremist facilitation networks, and build partner nation capacity to counter the flow of foreign fighters on their own.

V. Supporting Other Combatant Commands and Contingencies

A. RESOLUTE SUPPORT: Enabling the NATO mission to Afghanistan

U.S. and NATO forces completed Afghan combat operations in December 2014. On 1 January 2015, ISAF transitioned to the RESOLUTE SUPPORT Mission. Our European Allies and partners have borne and will continue to bear the burden of providing the bulk of forces, second only to the United States.

As we conduct the RESOLUTE SUPPORT Mission, EUCOM will continue to help prepare our Allies and partners for deployments to support the train, advise, and assist mission, all the while maintaining maximum readiness to protect the force and to conduct full-spectrum operations, as required. Authorities to include allowing EUCOM to provide operational logistics, lift and sustain support for Allies and partners in Afghanistan, and Section 1202 have been invaluable in providing our Allies and partners with logistical support in the form of inter-theater lift, sustainment, and equipment loans. On the training side, the Coalition Readiness Support Program enables us to provide crucial pre-deployment training to prepare 12 of our Ally and partner nations for the missions they will support during the RESOLUTE SUPPORT Mission. Section 1206 was absolutely vital in FY14, and previous years, to procure the equipment needed to fill critical shortfalls for nine of our Allied nations. This much needed equipment includes interoperable communications gear, counter-IED and explosive ordinance disposal equipment, medical equipment, and night vision devices.

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B. Operation INHERENT RESOLVE: Supporting military intervention against ISIL

The United States is considering options for enabling moderate Syrian opposition and EUCOM is in support of CENTCOM on this planning effort and continues to assist in developing options. Operation INHERENT RESOLVE is intended to reflect the unwavering resolve and deep commitment of the U.S. and partner nations in the region and around the globe to eliminate the terrorist group ISIL and the threat they pose to Iraq, the region, and the wider international community. It also symbolized the willingness and dedication of coalition members to work closely with our Allies and partners to apply all available dimensions of national power necessary – diplomatic, informational, military, economic – to degrade and ultimately destroy ISIL.

C. Operation UNITED ASSISTANCE: Fighting Ebola in Africa

EUCOM has worked in support of AFRICOM's efforts to stop the spread of Ebola from epidemic plagued countries in Africa, providing intra-theater lift, equipment, and personnel through and from the EUCOM AOR through established basing and access. EUCOM has proactively and aggressively engaged a number of European nations to secure permissions for U.S. Forces to use facilities and infrastructure for DoD-directed 21-day controlled monitoring in Europe and to relay the protocols necessary to prevent the inadvertent transmission of the Ebola disease onto the European continent. Furthermore, EUCOM has worked closely with various U.S. Embassies and other Combatant Command personnel to help shape the development of host nation permission requirements, while identifying and allying European fears via robust information and intelligence sharing efforts.

D. Protection of U.S. Embassies and Facilities in North Africa and the Middle East

EUCOM continues to posture both land and air forces for quick reactions to volatile environments in North Africa and the Middle East. Forces, such as the Special-Purpose Marine Air Ground Task Force-Crisis Response-Africa (SPMAGTF) currently located in Spain, Italy, and Romania provides a crisis response force of 1,550 Marines. Aircraft stationed in Germany, Italy and elsewhere in Europe are on high alert to react to crises as needed. EUCOM supports this mission through its strategically located facilities and access agreements within Europe. The protection mission is vital, albeit costly, as a large number of embassies and consulates are at risk on the Africa continent and AFRICOM has no bases in Africa that can support forces assigned to the mission.

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VI. Setting the Theater

EUCOM needs sufficient resources to maintain readiness, execute assigned missions, and build capability and capacity of our Allies and partners to defend themselves and bolster regional security.

A. U.S. Defense Posture**1. Forces**

Overall reductions in the Department of Defense's budget have meant the reduction of force posture in Europe. Nevertheless, in light of recent, significant changes to the European strategic environment, it is my judgment we must immediately halt any additional reductions to the number of assigned forces in Europe. At the height of the Cold War, there were more than 450,000 uniformed personnel stationed across the European Theater. Today there are fewer than 65,000 permanent military personnel stationed throughout the EUCOM AOR, of which 55,000 are in direct support of EUCOM missions, and 9,000 support the missions of other organizations, such as AFRICOM, TRANSCOM, NATO, and others. The EUCOM assigned forces are tasked with the same deterrent and reassurance missions we have performed for the past several decades. It is important to understand the critical roles these forces play in this theater before the Services recommend further reducing the current force posture in Europe.

On any given day, forces throughout Europe are engaged in a variety of activities and missions to include (1) Training of our forces in order to be ready, if called upon, to conduct full spectrum military operations; (2) Assuring our Allies of our commitment to collective defense; (3) Training and collaborating with our NATO Allies and partners to maintain interoperability; and (4) Working with our Allies and partners to effectively prepare for and support humanitarian assistance and disaster relief operations.

In addition to my responsibilities as a warfighting commander, I also often serve in the role of a supporting commander. EUCOM forces are ready to support the needs and missions of four other Geographic Combatant Commanders, three Functional Combatant Commanders, and numerous Defense Agencies, including the ability to appropriately base and provide logistics support functions to forces assigned to operations in the AFRICOM and CENTCOM areas of responsibility.

Some have suggested we can mitigate the impact felt from a reduction in assigned forces through the augmentation of rotational forces from the United States. Rotational forces from the

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continental United States to Europe cannot completely fulfill strategic roles. The temporary presence of rotational forces may complement, but does not substitute for an enduring forward deployed presence that is tangible and real. Rotational forces also have an impact on our relationships with various host nations we will count on to enable operations; we might over reach to assume host nations will readily accept our new readiness construct. As I have said previously, virtual presence means actual absence. The constant presence of U.S. forces in Europe since World War II has enabled the United States to enjoy the relatively free access we have come to count on—and require—in times of crisis. Further reductions of both infrastructure and forces will reduce our access to key strategic locations during times of crisis.

2. Footprint

a. European Infrastructure Consolidation (EIC)

Since the end of the Cold War, EUCOM has reduced its footprint in Europe to less than 25% of the total controlled, European real estate inventory once held by the United States. Our current network of U.S.-controlled bases throughout Europe provides for superb training and enables power projection in support of steady-state and contingency operations. As EUCOM begins to implement the Secretary of Defense's direction on EIC, the Department must focus to ensure remaining infrastructure properly supports operational requirements and strategic commitments.

EIC reductions will yield cost savings with the remaining infrastructure sufficient to support steady-state and crisis activities. Upon full implementation of EIC, EUCOM will have 17 main operating bases in Europe. As we continue to implement EIC recommendations, EUCOM will work towards minimizing any negative effects the reduction of bases may have on our strategy, operations, and the political-military relationships the U.S. has built in Europe.

b. Key Military Construction (MILCON) Priorities

EUCOM's FY 2016 military construction program continues to support key posture initiatives, recapitalize key infrastructure, and consolidate enduring locations. I am thankful Congress continues to fund EUCOM's priorities, in particular the Landstuhl Regional Medical Center/Rhine Ordnance Barracks theater medical consolidation and recapitalization project (ROBMC), European Phased Adaptive Approach (EPAA) missile defense projects, and the relocation of the Joint Intelligence Operations Center Europe (JIOCEUR) and Joint Analysis Center (JAC) to Croughton, United Kingdom.

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ROBMC remains one of the command's highest priority military construction projects, providing a vitally important replacement to theater-based combat and contingency operation medical support from the aged and failing infrastructure at the current facility. The official ground-breaking ceremony, conducted jointly by the United States and Germany, took place this past October and signified continued support and commitment from both nations. This project is vital to ensuring the availability of the highest level trauma care to future U.S. warfighters.

Congressional support for the EPAA Phase 1 projects, including approval to replace expeditionary facilities in Turkey with semi-permanent facilities, has been critical to achieving a high degree of readiness at the AN/TPY-2 radar site. In FY 2013 and FY 2014, the command began EPAA Phase 2 projects, including an Aegis Ashore site in Romania.

Another key EUCOM MILCON priority project is the consolidation of the JIOCEUR Analytic Center and other intelligence elements at RAF Croughton, UK. The Department requested planning and design funding for the consolidation during FY 2015, with three phases of MILCON construction in FY 2015-2017 respectively. We anticipate the construction completion will occur in FY 2019, with movement of units occurring in FY 2019/2020.

Phase 1 includes EUCOM's Joint Analysis Center (JAC) as well as Defense Intelligence Agency's Regional Support Center. The planned replacement facility will consolidate intelligence operations into an efficient, purpose-built building which will save the U.S. Government \$74 million per year and reduce significant operational risk associated with current substandard, deteriorating facilities. The RAF Croughton site also ensures continuation of the strong EUCOM-UK intelligence relationships our sponsorship of the co-located NATO Intelligence Fusion Center.

The maintenance of our intelligence relationships with the UK and NATO remains vital to EUCOM's capability to conduct military operations from and within Europe. Phase 2, programmed for FY 2016, adds AFRICOM intelligence activities (currently at RAF Molesworth), the NATO Intelligence Fusion Center, and the Battlefield Information Collection and Exploitation System (BICES), which provides classified communications to our NATO partners.

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3. Missile Defense

The changing security environment in the EUCOM AOR makes it critical for the U.S. to take proactive measures and ensure our Allies and partners have the capability and capacity to defend themselves, their region, and support global coalition requirements.

a. Progress on implementation of EPAA

EUCOM continues to implement the European Phased Adaptive Approach (EPAA) to missile defense in Europe, and further develops partnerships and assurances in NATO. Within the next year, EUCOM expects to complete Phase 2 of the EPAA when the Aegis Ashore site, currently under construction in Deveselu, Romania, becomes operational. Phase 2 of the EPAA will provide enhanced medium-range missile defense capability, expanding upon Phase 1 of the EPAA, which has been operational since 2011. The deployment of Aegis Ashore will be the final building block in finalizing the Phase 2 EPAA capability in Europe. While completion of the site in Deveselu, Romania is still on schedule, there have been some delays in construction. EUCOM and Missile Defense Agency leadership have been tracking this progress closely and firmly believe there will be no slippage in schedule. We expect the Aegis Ashore capability to be delivered on 31 December 2015.

EPAA Phase 3, which is primarily composed of a second Aegis Ashore site at Redzikowo, Poland, is on track to support completion in the 2018 timeframe. The broader basing agreement is complete and the implementing arrangement negotiations are on schedule and meeting both U.S. and Polish expectations. EPAA Phase 3 builds upon the pre-existing intermediate-range missile defense capabilities of Phases 1 and 2 of the EPAA. Once in place EPAA Phase 3 will support EUCOM Plans and Operations and represents the U.S. voluntary national contribution Ballistic Missile Defense of NATO.

b. Increasing Allied engagement and commitment

EUCOM is encouraging Allies and partners to invest in their own air and missile defense capabilities to ensure that they are interoperable with our systems. Building an integrated network of interoperable IAMD systems will leverage cost-sharing and help spread the commitment among willing participants. The Allies are listening, and they are beginning to respond. The allies are also making investments in BMD capabilities, such as the Netherlands-Denmark-Germany effort to study the upgrade of the Smart-L radar systems onboard their Air defense ships, and the comprehensive programs underway in Poland and Turkey to upgrade their

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lower-tier air and missile defense capabilities. EUCOM is working with the Defense Security Cooperation Agency and the Department of Defense on developing authorities that will enable the U.S. to sell missiles and other weapons systems with retransfer rights to groups of NATO and other authorized nations.

c. Support to Israeli Missile Defense

U.S. efforts to enhance the BMD for Israel are well-developed. The threat posed by longer range ballistic missiles, larger raid sizes, and increased accuracy of ballistic missiles and rockets poses a significant challenge to Israel. EUCOM maintains plans to deploy forces in support of the defense of Israel against ballistic missile attack if requested. EUCOM also conducts maritime BMD patrols in cooperation with Israel. In addition, EUCOM conducts regular BMD training exercises with Israel on a weekly and quarterly basis.

In late 2013, U.S. and Israeli representatives signed the “Combined U.S.-Israel BMD Architecture Enhancement Program” (AEP). In addition to providing guidance on combined U.S.-Israel operations, the AEP provides direction on how the United States and Israel will jointly address the full range of potential BMD enhancements developed by both sides.

4. Cyber

Among the most dangerous threats facing Europe’s new security environment are those that can manifest asymmetrically through Cyberspace. Adversaries can easily hide their identities and locations in Cyberspace, and attempt to exploit our people, our systems, our information, and our infrastructure. EUCOM must defend against these adversaries who can threaten our forces from anywhere in the world, by identifying and securing key parts of our critical infrastructure in what has become our cyber flank. Through a defensible architecture, ready cyber forces, and improved situational awareness, EUCOM will protect this flank just like eastern and southern flanks that see increasing threats today. While doctrine and concepts for operating in cyberspace are still being formulated and debated, our adversaries are aggressively searching for new vulnerabilities to exploit in the cyber flank.

EUCOM’s first Cyber Combat Mission Team (CMT) and Cyber Protection Team (CPT) reached Initial Operational Capability (IOC) this past year providing us with new capabilities to protect our people, systems, information, and infrastructure while holding adversaries at risk. As these teams continue to improve, EUCOM will have an enhanced ability to plan and conduct Cyberspace Operations to enhance our situational awareness and protect our cyber flank.

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The Joint Information Environment (JIE) is moving ahead in the European theater as the as a way to reduce risk to missions by providing better situational awareness into networks, improving security, and better integrating information technology across all the Services within the Department of Defense. As a result of this effort, EUCOM has seen improved mission effectiveness through the implementation of unified capabilities, virtual desktops, and an enterprise operations center that is capable of tracking all of our component information technology systems. As EUCOM enters into the next phase of JIE, we are improving our ability to better operate with allies, friends, and partners in a Mission Partner Environment that has enhanced capabilities for information sharing and situational awareness. As demonstrated during Operations ATLANTIC RESOLVE, UNIFIED ASSISTANCE, and INHERENT RESOLVE, USEUCOM's information technology infrastructure must remain relevant, interoperable, and resilient to support a range of missions that transit our theater in support of what our national leaders may ask us to do with like-minded friends, partners, and Allies. As part of JIE, EUCOM continues to enhance our interoperability so that we can rapidly share information, enhance understanding, and dominate any potential adversary.

5. Maintaining U.S. Nuclear Deterrent with NATO Allies

NATO's 2010 Strategic Concept, 2012 Deterrence and Defense Posture Review, and 2014 Wales Summit Declaration all affirmed that deterrence, based on an appropriate mix of nuclear, conventional, and missile defense capabilities, remains a core element of our overall strategy, and that "as long as nuclear weapons exist, NATO will remain a nuclear alliance." EUCOM maintains a safe, secure, and effective theater nuclear deterrent in support of NATO and enduring U.S. security commitment within the EUCOM AOR. Through rigorous and effective training, exercises, evaluations, inspections, operations, and sustainment, EUCOM ensures that United States nuclear weapons and the means to support and deploy those weapons are ready to support national and Alliance strategic objectives.

Consistent with NATO's commitment to the broadest possible participation of Allies in the Alliance's nuclear sharing arrangements, EUCOM stands side-by-side with our NATO Allies to provide nuclear forces that are safe, secure, reliable, and effective, and that contribute to a robust deterrence and defense posture that strengthens Alliance cohesion and the transatlantic link. The supreme guarantee of the security of the Allies, moreover, is provided by the strategic nuclear forces of the Alliance, particularly those of the United States. EUCOM, therefore, works

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closely with STRATCOM to assure Allies of the U.S. commitment to the Alliance. For example, by conducting bomber assurance and deterrence missions in support of NATO and regional exercises as part of Operation ATLANTIC RESOLVE.

6. Information Operations

Information Operations are essential to EUCOM's ability to shape the security environment and achieve our military objectives. Activities conducted under Operation ASSURED VOICE provide a powerful means to counter Russian aggression, challenge extremist ideology, and prepare for contingency operations. The EUCOM AOR has the highest internet usage rate of any OCONUS Geographic Combatant Command; that characteristic simultaneously presents the Command with an unprecedented opportunity and efficient conduit for influence in the region. We know from experience that our adversaries will seek to gain an edge by using the internet to present false narratives and spread propaganda. We will leverage the advanced technological environment in the EUCOM AOR and use the internet as a principal, cost-effective means to reach target audiences critical to our objectives. These leading-edge capabilities and methods will augment and complement the more traditional military influence measures we currently employ. To effectively move forward, we must clarify the roles, expectations, and authorities required for steady state military influence operations on the internet and continue to advance these activities in close coordination with other departments and agencies.

7. Global Mobility Operations

The footprint within the EUCOM Theater is essential to USTRANSCOM's global strategy and directly supports AFRICOM, CENTCOM, EUCOM, SOCOM, STRATCOM, and NATO operations. TRANSCOM will continue to depend on relationships with European host nations for overflight and access to European infrastructure.

8. Counter Weapons of Mass Destruction, Counter Trafficking, and Counter Narcotics

Weapons of Mass Destruction (WMD), in the hands of a rogue state or non-state actor, continue to represent a grave threat to the United States and the international community. Our Allies, Partners, and NATO share these concerns; we continue to work with them on building capacity and capabilities for countering WMD and pursuing efforts bilaterally, regionally, and in a NATO construct to collaborate on reducing the potential for successful WMD trafficking and

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use. We are also working in a whole of government manner to counter the trafficking of other illegal items, especially drugs crossing through Europe into the United States.

VII. Conclusion

Those of us assigned to Europe on behalf of the U.S. work every day to maintain peace with our European Allies and partners, striving to meet the security challenges we face as a nation and as a member of NATO. This includes continuing to demonstrate U.S. leadership and commitment to NATO and supporting the implementation of the NATO Readiness Action Plan.

The resurgence of a revanchist Russia, and the emergence of new risks emanating from across the Mediterranean, places us in a new security environment that drives new ways of thinking. Accurately assessing these changes is critical to ensure we react properly to state and non-state actors who are not complying with international norms. As one of only two forward positioned Combatant Commands, EUCOM is in a front row seat for the action, and our staff, both at the headquarters and component levels, has the expertise and relationships to adapt.

We must continue to leverage and build upon the expeditionary capability and interoperability gained over a decade of operations in Afghanistan and increase opportunities to work together in the future. Many of these capabilities are essential to confronting current security challenges. Our Allies and partners have benefited from our sustained efforts to build partnership capacity with EUCOM and we see this process as a keystone to countering threats like Russian aggression and influence. We need to protect our investment to leverage it in response to near and medium-term threats and challenges. We must also continue exercising with and training our Allies and partners and enabling the NATO Alliance to make the transition from expeditionary and counterinsurgency operations in Afghanistan, to conducting a full spectrum of joint, combined operations, including high-end combined arms warfare. Our nation's security interests require we preserve their capabilities and their willingness to act so that they remain able to respond to threats to U.S. and European security as well as global contingencies.

While preserving expeditionary capabilities developed over the last decade, we must address and help our Allies and partners address renewed challenges, including along Europe's eastern periphery. Reassuring, stabilizing, and supporting Allies and partners in Europe are vital to protecting American interests both on the continent and at home. As the Commander of

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EUCOM, we need the resources to remain decisively engaged in the EUCOM Theater, to have the stabilized force structure to effectively meet our challenges brought by the new European security environment, and to defend our nation forward. If we do not stand up and take the initiative to set the theater, someone else will. We need credible, enduring capabilities that will assure, deter, and defend while shaping the theater with a coordinated whole of government approach. As long as I have the watch over EUCOM, I will relentlessly pursue a Europe that is whole, free, and at peace.

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[CLERK'S NOTE.—The complete transcript of the hearing could not be printed due to the classification of the material discussed.]

TUESDAY, MARCH 24, 2015.

MISSILE DEFENSE AGENCY

WITNESS

VICE ADMIRAL JAMES D. SYRING, U.S. NAVY, DIRECTOR, MISSILE DEFENSE AGENCY

CHAIRMAN FRELINGHUYSEN OPENING REMARKS

Mr. FRELINGHUYSEN. Subcommittee will come to order. I would like to recognize the ranking member, Mr. Visclosky, for a motion.

Mr. VISCLOSKY. Mr. Chairman, I move that those portions of the hearing today which involve classified material be held in executive session because of the classification of the material to be discussed.

Mr. FRELINGHUYSEN. So ordered. Thank you, Mr. Visclosky.

This morning the subcommittee will hold a closed hearing on the fiscal year 2016 budget request for the Missile Defense Agency. I say and remind everybody that the classification for this hearing is top secret, that comments must not exceed this level in this room.

Welcome back to the subcommittee, Vice Admiral James Syring—I will get the pronunciation correct this time, I apologize—director of our Missile Defense Agency. We are delighted to have you with us and look forward to hearing about the current status of your programs and your assessment of the myriad of threats facing America and our allies. Of course, the Missile Defense Agency plays a vital role in defense of our Nation. Our members consider it a priority to ensure that you have what you need to adequately conduct your mission and continue defending our Nation.

As I started my preparation for this hearing, it struck me that some things never seem to change. Almost 1 year ago to the day, the North Koreans were firing missiles and threatening to test a nuclear device. Then a couple of weeks ago, the North Koreans are again firing off missiles and making more threats.

Admiral, with events like this occurring around the globe, it only underscores the vital role your agency plays. However, one thing is very different from last year: We have the threat of sequestration looming. If we are forced to mark up our bill under the Budget Control caps, we estimate your program share of this reduction will be nearly \$1 billion. We hope that you will be able to share with us this morning the impact this funding reduction would have on your program.

This year, more than ever, the subcommittee is charged with making difficult fiscal choices, and we need the best information you can possibly provide to assure that we make the best choices possible for our Nation's security. We look forward to working with you to minimize the impact of these reductions on your programs.

So welcome. We look forward to your testimony and to an informative question-and-answer session. Beyond North Korea, Iran, Russia and Chinese threats, the committee needs to hear your views on such issues as target discrimination, sensors, and directed energy research.

First I would like to turn to my good friend, Mr. Visclosky, the ranking member, for any comments he may wish to make.

Mr. VISCLOSKY. Chairman, simply thank you for holding the hearing, and Admiral, for your service and your presentation, and look forward to the testimony.

Mr. FRELINGHUYSEN. Admiral Syring, the floor is yours. And your complete testimony will be put in the record.

VADM SYRING OPENING REMARKS

Admiral SYRING. Thank you, sir. Chairman Frelinghuysen, Ranking Member Visclosky, and distinguished members of the subcommittee, I appreciate the opportunity to testify today. I am going to deviate a little bit, sir, and go into the thread of my opening statement here to give context, and then questions that will come from that.

Our budget request for fiscal year 2016 maintains the commitment to operate and sustain our homeland defenses, including the planned deployment of 44 GBIs by the end of 2017. This request supports test requirements as we continue to enhance the stockpile reliability program and undertake component aging testing in order to understand and maintain the health of the deployed system.

The testing plan in 2016 includes a non-intercept flight test to evaluate alternate divert thrusters and support algorithm development for discrimination improvements for the homeland defense. We will also continue development of the redesigned kill vehicle (RKV) for improved reliability, availability, performance and produceability. The first test of this RKV is planned for 2018, the first intercept test will be 2019, with initial deployment in 2020.

We started acquisition planning and pre-construction activities for the long-range discrimination radar (LRDR). We anticipate contractor award for this radar by the end of fiscal year 2015.

Our 2010 budget request supports the deployment of standard missile block—Standard Missile-3 Block IBs, and beginning in 2018, the IIAs on ships and at Aegis Ashore sites in Romania and Poland. We plan to procure 209 SM IBs by the end of 2016, and will request multi-year procurement authorization. We are also planning to deliver 48 additional THAAD interceptors to the Army, for a total of 155 by the end of 2016.

And, finally, our advance development technology and development efforts will ramp up this year. We will continue our discrimination sensor weapons and technology common kill vehicle program, which includes the early concept exploration of multi-object kill vehicles, and technology maturation initiatives. These investments will help us to deploy a future BMDS architecture more capable of discrimination and killing reentry vehicles with a high degree of confidence. Our low-power directed entry resource is focused on providing a forward tracking capability.

Mr. Chairman, the threat is moving forward rapidly and progressing at an equal pace. We will continue to pursue—aggressively pursue cost reduction measures of all the acquisition programs through competition, partnering and cooperation as we continue to deliver the most—best missile defense capabilities to protect our Nation, our deployed forces, friends and allies at the lowest possible Cost to the American taxpayer.

Thank you, sir, and I look forward to the questions.

Mr. FRELINGHUYSEN. Thank you, Admiral, for your testimony.

Mr. Womack.

CAPABILITIES OF IRAN

Mr. WOMACK. Thank you, Mr. Chairman. And thank you, Admiral, for your service to our country and the testimony that you are giving here today.

It goes without saying that many members across the Capitol are concerned enough about the potential in Iran, its nuclear capability, that they have—some have resorted to doing a little bit of impromptu diplomacy in the form of letters to the Iranian government. Clearly—this is clearly all while the White House believes that their negotiations are viable ways to stop Iran from spinning centrifuges and racing toward a weapon.

I am not going to ask you about the politics or your opinion on the White House's decisions, but I do want to ask these things: How much nuclear capability does Iran have right now?

Mr. WOMACK. Seems to me that over time, we hear all of these time frames, in 6 months, in 1 year, and this has been going on multiple years, so forgive me for being a bit skeptical about some of this. I would just like to kind of get the truth as to exactly where the country is right now so that we could discern what the true and present threat is.

Now, am I missing something there in terms of just how far away they are from being able to develop weapons grade?

Admiral SYRING. No, sir, you are not. But, again, I would—I would emphasize in the concentration today, which I can intelligently comment on, is delivery systems of that material in terms of where are they with long-range development of an ICBM class that could potentially deliver a weapon to the United States.

Mr. WOMACK. Is this the one area that—I know there are several areas that probably cause you some sleepless nights, but this would have to be one of them?

CONCERNS ABOUT EASTERN EUROPE

Mr. WOMACK. Mr. Chairman, I just have one more real quick question and then I have got to depart for another committee meeting. A number of us just returned from the Ukraine, and so I have got a question about what is going on in eastern Europe.

After signing the Iran Sanction Act in 2011, the President cancelled programs to place missile defense interceptors in Poland and

a radar in the Czech Republic. What concerns should we have about what our capability is in the eastern part of Europe given what is going on in the Ukraine and the potential for Russia to step up more of this aggressive nature that they seem to be playing?

Admiral SYRING. The answer in terms of what we are doing in eastern Europe from a missile defense standpoint is sites that are in Romania and Poland, as you are aware, Aegis Ashore sites that will provide defensive weapons against the short and medium range threats from Iran.

The concern that I hear and get asked about is, what about defense of those sites from Russia? And it is more, sir, of a policy question at this point, because we didn't design those sites against Russia. They have no capability against the Russian ICBM. So the question—I answer the question from a policy standpoint is, and that will be driven by the combatant commanders if and when do we decide that we have to protect those sites. That is the danger I see.

Mr. WOMACK. Thank you, again, for your service.

Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Ms. Granger.

IRAN AND NORTH KOREAN THREATS

Ms. GRANGER. Yes. Thank you for being here and thank you for your service.

Admiral, Iran and North Korea are both known to engage in weapons proliferation and technology transfer. Your agency states that increasing technology transfer and missile proliferation could render traditional deterrence and diplomacy ineffective against a future missile attack. Can you tell me, in terms I can understand, how you are ensuring this doesn't happen?

EFFECTS OF SEQUESTRATION

Ms. GRANGER. Could I follow up with a question? The chairman asked this, but with what you just described and how important that is to our future, vital, if this Congress can't get rid of sequestration and has to come in at those numbers, what programs are you going to have to pick and choose on to do what is immediate but not long-term, or how are you going to make those decisions, how will it affect what you just described?

Admiral SYRING. Yes, ma'am. If I can, Mr. Chairman, I am going to use the \$1 billion figure that was in your opening statement, if sequestration comes down at a billion dollars. My budget is roughly just over \$8.1 billion request, and so I have got to come up with \$1 billion in execution here, and I have got two very important fence posts. Homeland defense is the number one priority of the Department, and then the commitments that we have made in Europe to our allies of the European approach. So you would see me protect those at all costs, because those are our two top priorities,

at the sacrifice of the new START development programs, which we haven't talked about yet, in terms of designing a new kill vehicle.

Ms. GRANGER. Thank you. You know, and I hear you. We all do. I think we have had testimony here going through this and asked that question so many times, but the importance of not just what we need to protect us, but our commitments to our allies is extremely important, and I am glad that you mentioned that. We haven't talked a lot about that.

Thank you, Mr. Chairman.

MISSILE DEFENSE SITES AND DISCRIMINATION CAPABILITIES

Mr. FRELINGHUYSEN. Before recognizing Mr. Ruppertsberger, would you briefly run the committee through where we, in fact, have existing systems—

Admiral SYRING. Yes, sir.

Mr. FRELINGHUYSEN [continuing]. Around the world? I think it would be important. Most members know, but I think it would be good. And would you also very briefly define this issue of discrimination. You use it with a high degree of comfort.

Admiral SYRING. Yes, sir. I understand.

Mr. FRELINGHUYSEN. And maybe members know what that is, but in reality, I think it is important for people to understand what it means.

Admiral SYRING. Okay. If I can just take a couple of minutes, Mr. Chairman, and describe, and then I think that'll help set the context here. And I will go around the world, but I will start here with the homeland.

The homeland defense system currently today is 30 ground-based interceptors, mostly in Alaska and a few at Vandenberg; 26 and four is the split that we use. These provide our long-range ICBM defense against Iran and North Korea. System wasn't designed and never has been designed against China or Russia in terms of what they could possibly shoot at us.

This homeland defense system is just not interceptors, it is also a fire control system that is up in Fort Greely. There is a missile field up there that has all the operation. The command and control center is in Colorado Springs, along with what NORTHCOM fields there. There are radars around the world. To the east, there is a radar in Thule, Greenland, and Fylingdales, England. Those provide us the tracking capability of a potential threat from Iran. And to the west there is a radar on the tip of the Aleutians, Shemya Island, Cobra Dane and Clear, Alaska, as well.

There are data terminals that provide updates to the interceptors as they are detected by these sensors that would then cue the engagement from Fort Greely for mid-course defense intercept.

The regional programs around the world were, as you know, actively deployed with PATRIOT around the world. I think there are eight of the 16 batteries deployed today. We will have delivered four of the seven THAAD batteries to the Army by the end of this year. There is a lot of noise in the press, and you have seen it, on when and if we will deploy a THAAD battery to South Korea. I am

not going to get into that. That certainly is going to be, you know, Mr. Work and General Scaparrotti and the Secretary's decision on how to do that. I have been very quiet about that publicly. It is the warfighter's decision. And I think you will see them work towards that decision in the future. So—

Mr. FRELINGHUYSEN. Just one comment before going to Mr. Ruppersberger on ship-based and—

Admiral SYRING. Yes, sir. So 33—

Mr. FRELINGHUYSEN [continuing]. Aegis Ashore.

Admiral SYRING. Yes, sir. 33 BMD ships today, meaning the capability of firing SM-3s, and then rapid progress on a Romania Aegis Ashore site, which is essentially, think of a DDG and take the deckhouse and put it ashore to give us protection, to give us protection of our forces and our allies in eastern Europe. And then when Poland comes along, we will extend that to more central Europe, and then there will be ship stations that cover the entire continent by 2018 against short and medium-range threats from Iran.

Mr. FRELINGHUYSEN. Thank you for giving us that picture. I probably should have done that initially.

Admiral SYRING. Yes, sir.

Mr. FRELINGHUYSEN. Mr. Ruppersberger.

EFFECTS OF SEQUESTRATION

Mr. RUPPERSBERGER. Yes. Thank you, Mr. Chairman.

I know it is redundant, but I think it is extremely important. I know our chairman, our ranking member, members of this committee continue to talk about sequestration, which probably is one the biggest threats to our national security. If the American people could sit here and hear the testimony of all the members talking about what sequestration would do, I think they would be very concerned that Congress is not acting. And this is not a partisan issue. We need to get the record where our leadership, Republican, Democratic side to resolve this issue.

When me met last week, you mentioned that a sequestration-level budget will have a detrimental impact on your agency's ability to maintain our missile interception abilities at a level that is ahead of Iran and North Korea missile threat. Now, if your agency is provided with a budget that is at sequestration level, how quickly would you expect our missile interception capabilities to be out-paced?

CYBER THREATS TO MISSILE DEFENSE

Mr. RUPPERSBERGER. Okay. Very serious.

Now, let's get to cyber threat to missile defense. Cyber is the future of warfare, and, you know, we are anticipating where we are going to be in the future. Hundreds of thousands of cyber attacks occur every day, many of which are aimed at our military. Please provide us details on what the cyber threats are to the Missile Defense Agency and what you do. Is the primary goal of these attacks to shut down missile defense capabilities or to gather information on our capabilities, and, you know, what are we doing to try to deal with the issue of cyber attacks on what you do?

Sir, as we discussed, we have a layered strategy that is at the very top with cyber command. Missile defense is at the very top of the priority list, or near the top of the priority list in terms of active monitoring and defenses in a layered way in terms of how that is protected. We monitor it 24/7 and we take it very seriously.

Mr. RUPPERSBERGER. You know, it is unfortunate, especially the Chinese have stolen so much of your space programs and all of our different programs, saving them probably billions of dollars, but also understanding what we do, how we do it, and a lot of their technologies are ours now.

Admiral SYRING. Yes, sir.

Mr. RUPPERSBERGER. Do you agree with that?

Mr. RUPPERSBERGER. Another reason why Congress has to move ahead in the area of cyber legislation.

Admiral SYRING. I agree, sir.

Mr. RUPPERSBERGER. Yield back.

Mr. FRELINGHUYSEN. Mr. Crenshaw.

SEA-BASED MISSILE DEFENSE

Mr. CRENSHAW. Thank you, Mr. Chairman. And thank you, Admiral, for being here today.

Admiral SYRING. Yes, sir.

Mr. CRENSHAW. Your second trip. Glad to have you back.

You know, when you read the newspapers and you watch TV, you see a lot about terrorism and bombings and freedom fighters and foreign fighters, but listening to you talk really brings home the fact that this rapid proliferation of the whole missile area is one of the biggest threats to our national security. Even though we don't see it every day, we don't read about it, but your work is so vital, it really is one of the biggest long-term threats to our national security.

And when I heard you talk about what we are doing around the world, I wanted to follow up a little bit on the whole sea-based missile defense, because we have got—the Navy has a ship, I think they call it the LPD, and it has been a great platform and very capable, very flexible, and now they are going to build a new platform based on that using that hull, and a lot of people talk about that larger platform that might be valuable to have missile defense on that.

I know there is no money to do that right now, but I wanted to get your thoughts as you look to the future about how we deal with this very real threat. What goes through your mind in terms of our capability if we were to use a hull like that, larger, what would that bring to our missile defense, and maybe are there things we could do to test it, war games, something like that, because it seems to me down the road, that could be very vital.

Admiral SYRING. Sir, let me just answer it in the context of what we have today and what we are doing to answer the combatant commanders' requirements, which today exceed the number of ships that we have to provide. And it is only going to grow as EPAA is fielded in 2015 and 2018 in terms of the number of BMD-capable ships it is going to take to satisfy, not just the ship station

requirements in Europe, but over in the Pacific as well and in the Central Command area of operation. It is growing exponentially in terms of the demand curve for those ships.

And then I was just with the CNO last night. The other part of his problem, sir, is being able to cover the carrier strike groups and do Navy operations and get ships around the world to do things other than BMD. So you have got a rapid, you know, request from the combatant commanders for BMD ships, not enough ships, us trying to modernize ships as fast as we can, and so I think that is the first part of the answer.

On the LPD, I have seen the concepts, and they have merit and—but we are not pursuing that in terms of—we are down more the Aegis modernization path at this point. But down the road, additional sensors are helpful, any type of sensors are helpful. And I push our allies in Europe for sensor contributions, so I would push us as well.

Mr. CRENSHAW. Is that the main capability that it would add? I mean, I guess larger, have more radar, have more missiles? I mean, are those things that you think about down the road?

Mr. CRENSHAW. Gotcha. Thank you very much. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you.

Mr. Visclosky or Mr. Ryan. Mr. Ryan.

EAST COAST MISSILE DEFENSE SITE AND SEQUESTRATION

Mr. RYAN. Thank you, Mr. Chairman. Thank you, Mr. Visclosky, for your generosity.

I want to talk to you about the additional ground-based interceptor sites that you are looking at. One of the sites is in Ohio, which is in my congressional district. And so, if you could talk a little bit about both, you know, what is a suitable location for this system and then what is the timeline?

Admiral SYRING. Yes, sir.

Mr. RYAN. And I guess, lastly, how does sequestration and all the other challenges that you have play into the decision-making process?

Admiral SYRING. Right. Thank you, sir. The environmental impact study (EIS) is going on. It has been going on since early 2014. We are on track to finish that in final by mid 2016. And there has been a whole body of work done, hearings held, you know, environmental surveys done at all of the four sites, and Ohio being one of them, Camp Ravenna. And that—we will need to go through one more season here at one particular site up north in Maine just because of the seasonal limitations, and that will be rolled into the draft EIS, which will be published later this year. We will have another public hearing on that, finalize the report and send it over.

We have also been actively working the contingency plan that was mandated by the NDAA, and this is, how would you deploy it and what are the details behind that. It is very thick. It is non-site specific, but very detailed in terms of the planning that would go on.

Mr. RYAN. So is there, because of the budget, no timeline? I mean, I know the early timeline with the environmental and all that.

Admiral SYRING. We have not requested anything to ask the environmental impact studies. It is roughly 5 years after authorization and appropriation to complete a site. We know how to do it, we did it in Alaska, but it is a matter of a budget and need at this point.

COMMUNICATING THE NECESSITY OF MISSILE DEFENSE TO THE PUBLIC

Mr. RYAN. Yeah. This is a comment, Mr. Chairman, too, and maybe you have some advice for us, I know this is a closed hearing, but the average American sitting out there would not even think that some day in the very, very near future, that North Korea would have the capabilities to overwhelm our missile defense system. I just don't even think that is in their mind-set, which makes it even more difficult for us to try to make them aware of it without using information that is classified and without trying to scare people, but if you have any advice, because I know everyone on this committee really tries to get out and tries to make the case that these are important systems, and while we can't talk about all the details, this is our national security at stake.

So that is not really a question, I guess, but just a concern that I have, because we watch TV, we watch the movies and America wins in the end and we always come up with some really cute way of making it happen, and so people just think that that is how the world works, and I get concerned when we sit in these hearings and I see what the hollowing out, in a sense, of our capabilities. And I appreciate your service very much, and if you have any—

Mr. FRELINGHUYSEN. Would the gentleman yield?

Mr. RYAN. I would be happy to yield, Mr. Chairman.

Mr. FRELINGHUYSEN. Admiral, would you be willing to respond to Mr. Ryan? I share his concern. I think all members do. You have showed us a pretty frightening—you know, the prospects for some pretty frightening situations that could occur in the future. And I have to say, obviously, everybody will keep their mouth shut here, but in reality, somebody needs to know outside this room through some sort of an op-ed or through some general position paper that—you know, we often talk about, you know, the Chinese denying us access in the South China Sea and air access, you know, challenging our fighters and all sorts of things. But do you have some general comments about how we could as a—I won't say our committee, how Congress could do a better job of delivering some information on this that relates to some of the issues you have raised, because I think sometimes people are dismissive of our missile—this capability that we have.

You cannot expect the missile defense system in the numbers that we have fielded and the numbers that we will be able to defeat a mass raid. And if that happened, we would be in a much different scenario. But we must do what we are doing to make the best use of the current interceptors, leave our option open for the future in terms of more interceptors, but the more important thing

is increasing the reliability, improving the system, and adding the discrimination capability so we are assured that we can do our job on the right of launch.

Mr. FRELINGHUYSEN. Thank you, Mr. Ryan.

Mr. RYAN. Thank you.

Mr. FRELINGHUYSEN. Mr. Visclosky.

RELATIONSHIP WITH THE INTELLIGENCE COMMUNITY

Mr. VISCLOSKY. Admiral, you obviously do a lot of work with the intelligence community. Any gaps, anything that the intelligence community could do better or is being left undone that would be of assistance to you in your duties?

I also think, sir, that the indications and warning piece, and General—I mean, Admiral Gortney talks about this, General Jacoby talked about it before in terms of a large gap in terms of being able to assess in a more real-time fashion where the TELs are and if they are going to come out or not.

Mr. VISCLOSKY. One thing to see it, it is another thing to know what the anticipated use and timing of that is.

Mr. VISCLOSKY. Mr. Chairman, I forget which hearing it was earlier this year, it was almost, and there was nothing funny about it, it was, well, there he goes again with another launch, but which one is the one you have got to be deathly concerned about?

Admiral SYRING. Yes, sir.

Mr. VISCLOSKY. Obviously we face a very complex threat. You talked about an integrated approach as far as the threat. Mr. Ruppersberger brought up cyberattacks on us. I am assuming you are in communication and coordination, though, with colleagues relative to the use of cyber against our enemies, on the theory you couldn't have enough delivery systems to protect us against all of the threats that if they can't launch in the first instance, we are a lot better off. Could you just explain that coordination, what is going on—

Admiral SYRING. Yes, sir.

Mr. VISCLOSKY [continuing]. As far as our offensive, in a sense muse of that?

Admiral SYRING. Sir, in this classification—

Mr. VISCLOSKY. Okay.

Admiral SYRING [continuing]. I just—I want to be—

Mr. VISCLOSKY. Let me try one more.

Admiral SYRING. I want to be careful on the offensive side.

Mr. FRELINGHUYSEN. We won't say anything.

Mr. VISCLOSKY. No. He—

Mr. RUPPERSBERGER. Just us and the walls.

Mr. VISCLOSKY. Yeah. I know Mr. Ryan won't.

Admiral SYRING. I don't want to get cross with Admiral Rogers, who is a four and I am a three, so I will be very careful.

GBI ACQUISITION AND TESTING PROCESS

Mr. VISCLOSKY. We will do that. If I could, Mr. Chairman, one other one.

The General Accounting Office has expressed concern about the acquisition process, and I think we have probably talked about this in the past. Your test plan won't be completed until 2022 despite a plan to field 44 missiles by 2017. Could you address for us your take on the test plan and the risk of concurrency on this approach?

Admiral SYRING. Yes, sir. It is a great point and a good question that they have raised, and I addressed this last year, too, in terms of we are catching up from a long lull of the failures back in 2010 in terms of experiencing a very hard problem with an inertial measurement unit vibration issue that nobody saw and was very hard to replicate on the ground. We had to actually build a test bed to go replicate this on the ground. We successfully took that back to a non-intercept flight and then an intercept flight in June of last year.

Now, that successful intercept flight was necessary but not sufficient for the long-term health and fielding of the program. What that allowed us to do was field the next eight, and it informed the upgrade of the next eight to that configuration in terms of now we have been through a successful non-intercept and an intercept flight test. I went to the warfighter, I said, you know, I am confident that that test did everything that we expected, and we are good to put the next eight in.

The next flight test will be—next intercept flight test will be the end of 2016, and there is another upgrade coming, it is called the CE-2 Block 1, but it is primarily an obsolescence upgrade to parts that aren't available anymore that had started back in 2010. And we own a lot of those parts, we bought a lot of those parts. It is a matter of finishing the integration at some cost, but that flight test will inform us and the warfighter on whether we proceed with deploying those interceptors in 2017. And it will be my advice, depending on—you know, we would have to understand the failure and why it failed, but if it was an unknown with that interceptor, it would not be my recommendation to field those.

And I would like to be in a better position if it had been, you know, 2010, but we are playing catch-up here, so the idea is to flight test that before we deploy it since we have already bought all of the parts and must integrate them now.

In the future, the redesigned kill vehicle will be non-intercept tested and will be intercept tested before the decision is made to buy the production assets. And to me, that is where we want to be long-term in terms of flight tests and then decision, as opposed to buying all this material and interceptors before the flight test is complete.

Now, you know, we were in a position just on the history of the program well before I got here in terms of decisions that were made, but I think, sir, we have had this discussion, is we want to be at least in flight before you deploy, and at best, I think in the future, fly before we buy. Now, we are going to have to buy some test interceptors to go prove that, but before we make the production buy, I think it is vital that we go through an intercept test.

And the program in the future's laid out to that, and then you will see us if we go to MKV, same approach in terms of that, by 2025.

Mr. VISCLOSKY. Thank you, Mr. Chairman.

INFORMATION SHARING BETWEEN CHINA, RUSSIA, IRAN, AND NORTH KOREA

Mr. FRELINGHUYSEN. Thank you.

Admiral, I think Vice-Chair Granger mentioned the Chinese and the Russians relative to their relationships with North Korea and with Iran. How would you describe, should we say, the current sharing of information between those nations and those who are developing systems? Would you characterize it that they have historically been enablers of the development of the system? And I assume some of what the Russians have shared is sort of legacy, but is there more currency in the relationship? And I am not sure what we can talk about here, even though I have cautioned everybody on the top secret. What are they actually doing? What is the relationship?

HYPERSONIC MISSILES

Mr. FRELINGHUYSEN. I am an inveterate clipper. Most people look at their stuff online these days. Bill Gertz writes pretty well about some of your operations, and there was a pretty good definition of a new type of a threat, hypersonic missiles. I would just like to read the description for the benefit of the members, for as a layperson, this sort of said it all. Hypersonic missiles are maneuvering strike vehicles launched atop missiles that travel at speeds of up to 10 Mach, or 10 times the speed of sound. They maneuver and glide along the edge of space, making them difficult targets for missile defenses.

He goes on, current U.S. defense sensors and interceptors are designed primarily to hit ballistic missile warheads that travel in predictable flight paths from launch through space and into ground targets.

Could you talk a little bit more about this cap—this adds a dimension of huge proportions. I am not sure I totally understand everything you have done historically, but when you add this component in there as a threat, in many ways perhaps dwarfs some of the other issues we have been addressing over the years.

Where it is a challenge is that our homeland defense system is a mid-course intercept capability, where we intercept at hundreds of kilometers in space and are able to defeat a very predictable ballistic missile target.

Mr. FRELINGHUYSEN. So short of destroying the missile sites on the ground before launch, what steps are we taking to produce—you know, to counter this new technology, these types of developments.

Admiral SYRING. The biggest offer in this year's budget is the THAAD-extended range concept development in terms of let's start

that development to give us the capability to push a defensive system out to range to defeat that threat.

Mr. FRELINGHUYSEN. I assume we are doing it?

Admiral SYRING. We are.

Mr. FRELINGHUYSEN. In other words, we——

Admiral SYRING. We have the——

Mr. FRELINGHUYSEN. There is a game plan?

Mr. FRELINGHUYSEN. Can we assume the Russians, and I think you mentioned they are, working on a similar——

Admiral SYRING. They are.

Mr. FRELINGHUYSEN [continuing]. Similar program? And someone mentioned Ukraine earlier in their testimony. And I wrote an op ed, and we heard it from the President, the Russians are using, maybe not Crimea, but other portions that they have basically taken over in Ukraine as sort of a test bed for new weaponry, new cyber attacks, and all sorts of sophisticated weapons they are sort of testing out. I am sure this isn't one that they would use in that area, but what are the Russians doing?

Mr. FRELINGHUYSEN. Tell me about that.

Admiral SYRING. I am sorry, at 2,500 kilometers.

CHINESE AND IRANIAN THREATS

Mr. FRELINGHUYSEN. Tell me about the DF-21 ballistic missile.

Admiral SYRING. CSS-5 Mod-5 fielded by China today operational holds our——

Mr. FRELINGHUYSEN. Is it operational?

Admiral SYRING. Yes, sir. Holds our carrier battle group—could hold our carrier battle group at risk. The——

Mr. FRELINGHUYSEN. Do we know how many they have and——

Admiral SYRING. I don't.

Mr. FRELINGHUYSEN [continuing]. Where they are?

Admiral SYRING. I don't. Let me take that for the record.

[CLERK'S NOTE.—The answer provided was classified.]

Mr. FRELINGHUYSEN. And more important, what are the counter-measures we are taking a look at?

Admiral SYRING. The important program that you all supported is the sea-based terminal missile defense program that is a modification of the Aegis weapon system and the Standard Missile 6 that will protect the carrier battle group. We are going to test that this summer.

Mr. FRELINGHUYSEN. Mr. Ruppertsberger, are you ready?

Mr. RUPPERSBERGER. Just one thing very quickly, and I want to get into the—China introduced the world's first operation anti-ship ballistic missile, and Iran demonstrated a short-range anti-ship ballistic missile also. I think it is Fateh 110. It is well known that the Chinese ASBM could potentially pose a threat to U.S. ships. How credible of a threat is the Iranian ASBM? And it is my understanding that China is currently developing a next generation ASBM that is based on hypersonic live vehicle technology.

Admiral SYRING. Yes.

Mr. RUPPERSBERGER. Does the MDA have an estimate on when this technology will be operational and is the MDA currently positioned to be able to provide defensive technologies for next generation ASBM threat?

Mr. RUPPERSBERGER. We would. Okay.

Admiral SYRING. Yes, sir.

Mr. RUPPERSBERGER. Does sequestration help, hurt us in this regard also based on—

Admiral SYRING. Sequestration would jeopardize the increment 2 development of that program, which is where we think we need to be for the future. It is the seeker modifications and the SM-6 that need to go on to provide at the advanced capability.

Mr. RUPPERSBERGER. For the China and Iran—

Admiral SYRING. Yes, sir.

Mr. RUPPERSBERGER [continuing]. Iranian threat?

Admiral SYRING. That is correct.

Mr. RUPPERSBERGER. Okay. Yield back.

Mr. FRELINGHUYSEN. Ms. Granger.

REGAINING A TECHNOLOGICAL EDGE

Ms. GRANGER. I asked earlier what decisions you have to make if sequestration stays in effect. It seems to me that we are losing—or we have lost our technology edge. I mean, what you just described what China has tells us that.

If we were to say, all right, what is it going to take, not for you just to not have to cut things, but to regain that edge, to be able to come before this subcommittee and say, yes, we are still ahead, we are the ones who are doing things? What would that take?

Admiral SYRING. Ma'am, there is an active effort in the Pentagon to address that very question you are asking in terms of Mr. Work has come in, Mr. Kendall have been very vocal about our reduced research and development technology and the very fact that you state in terms of losing our edge. And there is a group, large group stood up that are going through the priorities of where do we think the technology priorities are, how much more investment needs to go into those priorities to address that very question.

Sequestration, for me, in terms of—I am just trying to hold what I have. And I think I have provided you a recommendation with this budget to hold what I have and do the necessary improvements to Mr. Ruppertsberger's question, about I may be fielding a capability next year to defend the carrier, but it does us no good if, by 2020, China has moved that threat further. And for missile defense, the future is so important as opposed to just concentrating on what we can do today, because the threat is moving so rapidly.

We haven't talked about this much, but directed energy has been a big focus for us in this budget in terms of increasing our investment for both discrimination and tracking capability, but maybe even more importantly, a boost phase intercept capability, where you now can start to think about, to some of the demonstrations that you are aware of that we did with airborne laser, you know, a decade ago, you know, can you field a meaningful boost phase

intercept capability. And to me, for missile defense, that is the technology edge that we need to be at. Multiple kill vehicles on one interceptor is a technology edge where you can think about shooting one with four kill vehicles on it, and you don't care if you have picked out the RV or not. And to me, that moves us ahead.

Some of the other programs that I am not as familiar with but I know exist are the DARPA in the Air Force and the Army hypersonic live vehicle programs that they are attempting to get off the ground, and I think proving that it is not easy. And that is what I put in context with China, is that they have demonstrated it, but to move it to the ranges that we are talking about is a very difficult problem; not that they can't do it, and they will try, but that is another step ahead.

But, ma'am, to your point, Mr. Kendall has been articulate on the fact that we are losing the edge, and sequestration would further erode that.

DIRECTED ENERGY RESEARCH

Mr. FRELINGHUYSEN. Will the gentlewoman yield?

Yeah. On the directed energy, you do have money, the \$30 million you have put in your budget relative to this issue here. And that is obviously an endorsement of proceeding with development. Is that correct?

Admiral SYRING. Sir, we have more than—and it is across multiple exhibits. You know, there is hundreds of million of dollars in directed energy, both classified and unclassified, that are asked for in this budget.

Mr. FRELINGHUYSEN. This is your piece of that——

Admiral SYRING. Yes, sir.

Mr. FRELINGHUYSEN [continuing]. Overall pie?

Excuse me.

Ms. GRANGER. That is all right.

And let me ask you this: This group that is putting the numbers together and looking, do they have a deadline?

Admiral SYRING. Ma'am, I will take that for the record. I am sure they do, and there is a schedule, and I do have people participating on it, but we are not leading it, so let me take that and get you the details on when they are going to get the results.

Ms. GRANGER. Good. Because I would hope you would and back to this subcommittee and report as that is developed.

Admiral SYRING. I will, ma'am.

Ms. GRANGER. Thank you.

Mr. FRELINGHUYSEN. Thank you, Ms. Granger.

Mr. Visclosky or Mr. Ryan?

COOPERATION WITH INTERNATIONAL PARTNERS

Mr. VISCLOSKY. Thank you, Mr. Chairman.

You know, we have had discussions in the past about the Israeli program and our cooperation. There is a program with Japan as well, as I understand it. How is that progressing, and are there other partners or potential partners we can do development with that would help spread our costs?

Admiral SYRING. Yes, sir. The Japan Cooperative Development program was an agreement that we reached with them to cost

share on the SM-3 IIA development. It was about a \$3 billion development. They paid a billion dollars of that development cost. We will flight test that, sir, in May for the first time; not intercept flight test, but we will fly that missile off California here in a couple of months.

Mr. VISCLOSKY. Besides money, are we receiving any intellectual property and help as far as research and development from the Japanese?

Admiral SYRING. Yes, sir. They did a marvelous job with the nose cone and sort of front end section of that missile that allowed us to concentrate on integration and the larger aspects. I wouldn't say that we got anything from them that we didn't know, because they were sort of in a—they are in a follow arrangement since we are the lead, but I wouldn't say there was anything intellectually that was new with the IIA from them, but they are manufacturing and what they are doing and their contribution is important.

The other one I will shift is to the east with our THAAD case with UAE. I mean, to me that is just a great example of them buying THAAD from us, lowering our overhead on that program in terms of interceptor quantities and price. They actually funded some of the needed obsolescence upgrades that were funded in the FMS case that we didn't have to fund that we needed anyway, so we are leveraging that. And those are the two near-term development efforts that we have got going.

There is talk, and only talk at this point, of if we start a THAAD ER program, would the UAE or any of the gulf coast—any of the Gulf Cooperation Council partners want to participate in that. And we will actively look for that participation if the policy supports it.

The other part, sir, is over in Europe. We can't continue to pull it alone, and we need sensor contributions first from countries in Europe. We are actively pursuing discussions with Spain, and you have probably read about Denmark and Norway's potential. And being able to use those ships and their radars and network, and there is going to require some information-sharing agreements obviously, but to have them pull some of the load on sensor contributions to the protection of Europe is what I am pushing, because we cannot continue just to pound on the United States Navy to take those stations for weeks on end.

To me, they have got to step up and contribute. They all want to develop an interceptor capability and think about that, and I dissuade them in terms of let's focus first on sensor and radar capability, because that is where we see the most help.

Mr. VISCLOSKY. Thank you. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Mr. Ryan, further questions?

DEFENSE INDUSTRIAL BASE

Mr. RYAN. I have a question. In your opinion, or can you help us understand our defense-industrial base capabilities as we talk about ramping this up or the wind down and sequestration and the damage that may have done to the supply chain Tier 1, Tier 2, Tier 3, and what we maybe need to do better here to rebuild that if we lost some capacity? And, you know, also I get concerned with Berry amendment and specialty metals and our ability to supply all of

these growing technological needs. Is there something that we need to be doing here from the defense-industrial base side?

Admiral SYRING. Sir, let me take that in two parts. The interceptor, meaning missile-industrial base that I rely on for ground-based interceptors, for the THAAD system, the Army relies on Patriot and the Aegis SM-3 interceptors, they are, I wouldn't call it healthy, but I wouldn't call it in dire straits in terms of work that is out there and projected future work.

I am going to continue to buy and hopefully someday have multi-year procurement in SM-3. We will continue to buy THAAD, we will continue to upgrade that.

We had a robust competitive field for the long-range radar in Alaska, with three companies coming in, with competitive proposals in terms of that sensor technology. So you would hear me start to get worried about radar technology if I got, like, one or two bidders to that, but we had three, and it is very competitive proposals delivered that we will select by the end of this year.

And that, coupled with the Navy's Advanced Missile Defense Radar, AMDR program, some of the other Air Force and Army awards, and then my desire to continue to improve sensor capability for Hawaii next and then to the east coast as well; it is not perfect, but I think it will keep that field going.

I don't have in the interceptor and the sensor area maybe as large a concern as we would have in the ship-building industrial base, for example. I think that the capability is out there and the competitive field is pretty ripe.

Specialty metals, we continue to watch and understand the importance of that in terms of what it could do, and have to go through very detailed requests and waivers when we are deviating at all from that, but we have tried to eliminate that entirely.

Mr. RYAN. So those three companies and their supply chain, is that an primarily American—

Admiral SYRING. Yes, sir.

Mr. RYAN [continuing]. Supply chain?

Admiral SYRING. Absolutely. Yes.

Mr. RYAN. Thank you, Mr. Chairman.

DIRECTED ENERGY RESEARCH

Mr. FRELINGHUYSEN. Getting back to the issue of directed, Admiral, energy research, for years we invested in the airborne laser test bed program. What are we investing in now?

I have handed a chart out that I think would be useful to go to in terms of laser technology and mission comparison. We hear about the Army programs and the Navy programs, DARPA programs. And then, sir, since you referenced ABL shootdown, you can see in the middle of chart where that is in the terms of the range that it was done and the power level that was demonstrated.

Mr. FRELINGHUYSEN. As best you can in the plainest English possible.

Admiral SYRING. Yes, sir.

Mr. FRELINGHUYSEN. Thank you.

Mr. FRELINGHUYSEN. So this is obviously a platform. Do you look at UAVs as a possible——

Admiral SYRING. That would be the first step.

Mr. FRELINGHUYSEN [continuing]. Vehicle? I mean, there is so much going on in that area.

Mr. FRELINGHUYSEN. The stability of the platform, right?

Admiral SYRING. Right. And you have got to have a stable platform. The only way you can do that is to be above the clouds.

CHINESE AND RUSSIAN MISSILE DEFENSE

Mr. FRELINGHUYSEN. You gave us a footprint of where we are in terms of, you know, Guam and Alaska. Is there a similar footprint for what China has and Russia in terms of their equivalent to the work you do, Missile Defense Agency?

Admiral SYRING. China is beginning to work on a missile defense system, from what I read in the intelligence.

Mr. FRELINGHUYSEN. We know they are working on a lot, but I am just wondering since they inherently feel we are trying to contain them, control them, you know, limit their ability to expand their areas of denial, I just wondered whether they are actually—they have something?

Admiral SYRING. No. Not yet.

Mr. FRELINGHUYSEN. The Russians? Where are the Russians?

Admiral SYRING. They have an older system that protects Moscow today, nuclear-based, so, you know, sort of a point defense system, but certainly not a country-wide defense system.

THAAD PROGRAM

Mr. FRELINGHUYSEN. Moving back to THAAD, there has always been historical issues in terms of tests, test schedules, like everything we do. We want to continue to test. Obviously there are people who operate who need to keep their skills up. Where do we stand relative to the test schedule, more importantly, the reliability of the THAAD program?

Admiral SYRING. THAAD, since it——

Mr. FRELINGHUYSEN. We are of it, but I am just saying that is an issue.

Admiral SYRING. Yes, sir. Since it was redesigned, as you are aware, it went through a redesign back in the mid 2000s; it has been 11 for 11 with flight intercepts and most recently last year, and we are going to test it again this year, this summer as part of the operational test. And I would like to keep it on a cadence of at least, you know, at least one a year, maybe one every 2 years to continue to prove the system.

Mr. FRELINGHUYSEN. You mentioned in your response to Mr. Visclosky that, you can tell me if this is correct, we approved the sale of three batteries to the UAE? Have they been delivered?

Admiral SYRING. They are going through acceptance testing today and they will deliver later this year.

Mr. FRELINGHUYSEN. And you mentioned, I guess, the other countries. Are they in the queue?

Admiral SYRING. The other countries are more about sensor contributions from ships that they have.

Mr. FRELINGHUYSEN. Yeah.

Admiral SYRING. Not anything in the queue for THAAD.

SENSORS

Mr. FRELINGHUYSEN. We haven't talked too much about sensors, but could you maybe talk a little bit about sensors as a—are we talking directed energy?

Admiral SYRING. Yes, sir.

Mr. FRELINGHUYSEN. We talked about hypersonic, the role of sensors, and where we are in developing things that are even more highly sophisticated and technologically-based.

And having that umbrella coverage of radar is vital to the missile defense mission for regional and then homeland as well, sir, in terms of what I talk about with being able to keep track of and discriminate tracks from North Korea and Iran that come over the pole, and that is why our radars are placed where they are.

Mr. FRELINGHUYSEN. And they are placed where they are, and given the uncertainty of a world where sometimes we expect the unexpected, that you feel comfortable that whatever we have here provides the degree of security that we need?

Admiral SYRING. Today, yes, sir. In the future, we will hold an offer—or a solution for Hawaii—

Mr. FRELINGHUYSEN. Yeah.

Admiral SYRING [continuing]. And for the east coast as well.

Mr. FRELINGHUYSEN. Yeah. The whole issue of—maybe I am mixing apples and oranges. The whole issue of no-notice, the ability of mobile systems, I mean, that is pretty frightening. We literally would have, you know, 30 seconds maybe to react if some system came out of a cave in North Korea, which I assume they have some degree of mobility right now.

Mr. FRELINGHUYSEN. Mr. Visclosky.

Mr. Ruppertsberger.

EAST COAST MISSILE DEFENSE SITE

Mr. RUPPERSBERGER. I don't think we can get into it, but there has been a debate and an issue about east coast missile defense site, and I know at this point you feel that that is not necessary. You have so much population on the east coast. Could you just explain why you feel that is not a priority now, and does that put the east coast at more risk than other areas of the country?

Admiral SYRING. Sir, the reason it is not needed is because against the current threat, the east coast is protected today with the inventory that we have.

Mr. RUPPERSBERGER. What inventory?

Admiral SYRING. The ground-based interceptors that are in Alaska and Hawaii—

Mr. RUPPERSBERGER. Okay.

Admiral SYRING [continuing]. Because of the trajectories that would come over the pole.

The second part of that answer is that the pace of long-range ICBM technology and demonstration is behind where North Korea is, in my view. And our first focus, given limited budget and resources, is to take care of the North Korea problem first, and then as we watch Iran develop, think about what is necessary for radar and a potential east coast site, in that order.

Mr. RUPPERSBERGER. Okay. Yield back.

Mr. FRELINGHUYSEN. Thank you.

Mr. Israel.

IRANIAN THREATS

Mr. ISRAEL. Thank you, Mr. Chairman.

Thank you so much for joining us. I wanted to chat with you about Israeli missile defense capabilities. Two questions, really. One, can you give us a sense or your assessment of Iran's ballistic missile capabilities? There has been a lot of talk about Iran's nuclear program. I am very skeptical, deeply skeptical that we can get a deal with Iran; deeply more skeptical that if we do get a deal with Iran, it will work. Most of the talk has been focused on Iran's nuclear capabilities, but not a lot of talk in terms of their delivery capabilities, so if you could talk to that first—

Admiral SYRING. Sure,

Mr. ISRAEL [continuing]. And then I am going to ask a couple of questions, with the chairman's consent, about Israel's own capabilities.

Mr. ISRAEL. And you noted that the Iranians have a longer way to go with respect to any kind of serious ICBM capability, but they are working that capability, correct?

Mr. ISRAEL. Thank you. Final question, if I have the time—

Mr. FRELINGHUYSEN. Go right ahead.

ISRAELI MISSILE DEFENSE PROGRAMS

Mr. ISRAEL [continuing]. Mr. Chairman.

Last night I had dinner with Israel's ambassador to the U.S., Ambassador Dermer, and we were talking about Israel's ballistic missile defense capabilities, and one of the things he talked about was, you know, they are in pretty good shape on Iron Dome, they are developing nicely on Arrow 2 and Arrow 3. His concern was that there is still this gap with respect to David's Sling, that they just haven't yet figured out how to deal with what Iron Dome can't take care of and what Arrow 2 and 3 can not or will not take care of.

So where are we with David's Sling and what needs to happen?

Admiral SYRING [continuing]. Two very important upcoming David's Sling tests. And then you will see the Israelis consider, I think, do we operationally or declare IOC and do they deploy that, and I think that some of that is the premise for their budget request this year. Again, I just want to have the context. We are still in development with the system.

Mr. ISRAEL. If we would increase funding for David's Sling, is it possible, given all the right contingencies, that it could be in production before the end of 2016, do you believe?

Admiral SYRING. Yes, sir. But, again, that—certainly possible, but, again, I think that what I will advise you on is the maturity of the system and the success of the flight testing regime and whether we think that that is a good investment for production dollars today.

Mr. ISRAEL. Okay. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Before yielding to Mr. Carter, that you had emphasized, and I assume it is accurate, this is co-development here.

Admiral SYRING. Correct.

Mr. FRELINGHUYSEN. This is co-development, so I assume we—

Admiral SYRING. Co-development in the sense that we provide the system engineering and technical test expertise to them.

Mr. FRELINGHUYSEN. All right.

Admiral SYRING. We have co-production today with Iron Dome, but—

Mr. FRELINGHUYSEN. Yes.

Admiral SYRING [continuing]. There has been no agreement on that for David's Sling or Arrow.

Mr. FRELINGHUYSEN. Okay. Thank you.

Thank you, Mr. Israel.

Judge Carter, Mr. Carter.

Mr. CARTER. First, Mr. Chairman, I apologize. I was chairing Homeland Security's inquiry into our Coast Guard and couldn't get loose, but I am glad to get here to at least get in on the tail end of this conversation. I know the work you do is very, very important to the future of our country, and I thank you for it.

Admiral SYRING. Thank you, sir.

SEA-BASED MISSILE DEFENSE

Mr. CARTER. Thank you for all the great brains that work out things that I don't understand, but they work, and that makes me happy.

I understand that you have spoken to potential gaps associated with the number of Aegis BMD systems we have employed and the current threat assessment. Is the DoD taking an innovative approach to development and employment of a cost-effective sea-based DMD alternatives, including the active DARPA—Navy joint program developing an autonomous ship which could be fitted with a diverse sensor package?

Admiral SYRING. Sir, I assume you are talking about directed energy?

Mr. CARTER. Yeah.

Admiral SYRING. Sea-based. And what the other parts and Services are working on with ship-based solutions is vital, but it is a much shorter-range problem than what I am dealing with with ballistic missiles. In terms of where you need a ship to be positioned to be able to intercept an ICBM from North Korea, for example, you can't have it close enough to be effective.

And then the other complicating factor would be the cloud cover in terms of once you detect, you have got to be able to track it

through clouds, and when you have a 50 percent cloud cover in North Korea, that defensive system on a ship would be limited. But, again, what they are working on is very, very important for the other missions of the Navy and the Army.

Mr. CARTER. Yeah. I was going to ask a question about David's Sling, but Mr. Israel has already asked that question, so, thank you, Mr. Chairman.

EUROPEAN PHASED ADAPTIVE APPROACH

Mr. FRELINGHUYSEN. Thank you.

Admiral, I want to get a little more information on what we have called the European phased adaptive approach. Is it on target? I mean, these are countries, most of whom are spending less and less on their military as part of their domestic product, and I am just wondering where we are and how we marry—you meet with your—you meet with the representatives of these countries that have these responsibilities. Are we headed in the right direction? And does it take into consideration some of the other things we have been discussing here?

I would assume the model has been a construct here, I wouldn't describe it as old school, but this approach was sort of laid out, you know, about, what, 2000 or earlier, somewhere in that area. Is it updated? Has it been updated to take into consideration some of the issues we have discussed today?

Admiral SYRING. Sir, the EPAA was formulated back in 2009, and certainly was envisioned earlier than that in terms of the concept, but in terms of implementation, Phase I was implemented in 2011, which involved a ship station and the radar to Turkey; Phase II will be fielded and is on track by 2015; Phase III, that is in Romania; and then Phase III will be in Poland.

And I have been to Romania probably a half a dozen times in the last year. It has not been without difficulty in terms of the completion of that site, but it will complete by the end of the year as promised and as scheduled. The Army Corps is a big part of helping us with that.

Poland is on track, and with your help this year with the MILCON that we need in 2016, that will remain on track and field by 2018.

The IIA missile which Mr. Visclosky asked about is critical to that development and will be fielded to Poland in 2018.

And so to answer your question, yes, it is on track and we have made the commitments.

Mr. FRELINGHUYSEN. I take it—are any of the Baltic nations host to any of this? Lithuania, Estonia?

Admiral SYRING. No, sir. Just eastern Europe, Romania and Poland.

Mr. FRELINGHUYSEN. Further questions for Admiral Syring? Yes, Judge Carter and then Mr. Diaz-Balart if he is ready.

DIRECTED ENERGY RESEARCH

Mr. CARTER. Tell me about directed energy. And I understand the cloud cover thing, and I am—this is a learning process for me, but, like, in the mid course of a launch or the terminal phase of

a launch, could you use directed energy to take out a missile at that phase?

Mid course would be a little harder, much harder, and that is why you see us talk about focusing on boost phase intercept, because that is really the best place to get it before it deploys its re-entry vehicle.

THAAD

Mr. CARTER. And if I understand what you have talked about, you have got a THAAD battery on Guam, right?

Admiral SYRING. Yes, we do, part of one.

Mr. CARTER. And that is carry—how many missiles are in that?

Admiral SYRING. Today there are 24 deployed to the island.

Mr. CARTER. And then you are proposing to put THAAD on the Korean Peninsula?

Admiral SYRING. The warfighter, General Scaparrotti hasn't decided that yet, but there is talk of it.

Mr. CARTER. What potential would that have?

Admiral SYRING. That would provide the defense of South Korea, a large part of South Korea from the shorter range missiles from North Korea.

Mr. CARTER. Would that THAAD deployment be adequate to protect Korea?

Admiral SYRING. Not the entire country, but a significant portion of it.

Mr. CARTER. Of course, one of the problems with Korea is Seoul is, like, 35 miles from the DMZ.

Admiral SYRING. Yes, sir. And we have deployed forces there that are very, very important to protect. And I know General Scaparrotti is heavily involved in that decision, along with General Dempsey.

Mr. CARTER. Right. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. It certainly would be viewed as North Korea is rather provocative, and it doesn't take much to provoke them, so I am sure it will be under discussion.

On behalf of the committee, Admiral—oh, Mr. Diaz-Balart, any comments?

Mr. DIAZ-BALART. Mr. Chairman, I apologize for being late. I was chairing my subcommittee.

Mr. FRELINGHUYSEN. Well, your presence here is so noted, and thank you for your major contribution to this discussion. I am sure we will put whatever your questions or remarks into the record for history.

Mr. DIAZ-BALART. Thank you, sir.

CHAIRMAN FRELINGHUYSEN CLOSING REMARKS

Mr. FRELINGHUYSEN. Thank you very much.

Admiral Syring, thank you for being here, thank you for the important work you do. Thank you for the men and women who stand behind you each and every day. In this part of our defense posture, I can't imagine anything more important and apropos of our earlier

discussion. I wish there was a more public opportunity for people to know what faces us as a Nation, that we could talk about it in the public more than we can.

On behalf of the committee, we stand adjourned. Just remind the committee, the committee's adjourned until 9:00 a.m. tomorrow morning, when we will convene in H-405 to hear the worldwide threat briefing from Mr. Clapper. It is worth your attendance there.

Thank you again, Admiral.

We stand adjourned.

THURSDAY, MARCH 26, 2015.

FISCAL YEAR 2016 ARMY BUDGET OVERVIEW

WITNESSES

**HON. JOHN M. McHUGH, SECRETARY, UNITED STATES ARMY GENERAL
RAYMOND T. ODIERNO, CHIEF OF STAFF, UNITED STATES ARMY**

OPENING STATEMENT OF CHAIRMAN FRELINGHUYSEN

Mr. FRELINGHUYSEN. The Committee will come to order. As our members gather, let me call the Committee to order.

This morning the Committee will receive testimony on the posture and budget request of the United States Army. The request for fiscal year 2016 is \$124.9 billion, plus \$20.7 billion for the overseas contingency operations, which, by the way, I think ought to be renamed to focus on exactly what we are doing, which is pursuing terrorists around the world.

This account total includes \$493 million for the Joint Improvised Explosive Device Defeat Fund and \$3.8 billion for the Afghanistan Security Forces Fund. The President's request also includes \$1.3 billion for the training and equipping of the armed forces of Iraq and the so-called moderate rebels in Syria.

This morning we will hear testimony from two superbly qualified witnesses, the Honorable John McHugh, Secretary of the Army, and General Ray Odierno, Chief of Staff of the Army. We welcome back our former colleague and recognize the fact that Secretary McHugh is doing a great job as the Army Secretary.

We are very pleased to have you back.

We also welcome back General Ray Odierno, the 38th Chief of Staff of the Army. He became Chief of Staff of the Army in September of 2011. He has nearly 40 years of service. This is his fourth appearance before the Committee.

Chief, thank you for your service and the men and women you represent.

Gentlemen, a year ago the administration was planning to reduce our force level in Afghanistan to about 5,000. On this presumption, the Army would be able to reset soldiers and equipment and ensure readiness for other potential conflicts. However, the situation has changed dramatically in Afghanistan and in Europe.

Earlier this week the President announced his intention to sustain the troop level of 10,000 into fiscal year 2016 in order to assist Afghan security forces in their efforts to defeat a resurgent Taliban.

Russia occupied Crimea after invading Ukraine and threatens its neighbors in the Baltics in Eastern Europe and, in fact, the NATO alliance itself.

In the Middle East, U.S. forces continue to fight against ISIS. While air strikes may receive most of the attention, the Army con-

tinues to provide assistance to the Iraqi security forces, even as Iran and the Quds Force lead the charge on the ground.

What a troubling brew we are witnessing.

ARMY FORCE STRUCTURE

In this situation, one might expect the U.S. Army to increase force structure in order to meet the demands of the combatant commanders. However, General Odierno, you testified before the Senate Armed Services in January that over the past 3 years Active-Duty component end strength has been cut by 80,000 and the Reserve component by 18,000, and the Army has eliminated 13 active brigade combat teams.

There are many other frightening statistics regarding the size and readiness of our Army which we look forward to discussing with you today. But if I may observe, my predecessors, both Chairman Murtha and Chairman Young, both warned of the dangers of the pendulum of spending. At a time when the Army and its sister services were flush with funding to fight concurrent wars in Iraq and Afghanistan, they both predicted, and their service here was long and distinguished, that the pendulum would swing back and funding would be exceedingly scarce, and that was even before there was talk of any sequestration.

Today, with our President openly declaring that the United States is no longer on a war footing, we are seeing that the Murtha and Young predictions are becoming reality. A price has already been paid as we all assume more risk with less money.

MAJOR ACQUISITION PROGRAMS

We also need to hear about your views on several major acquisition programs. A new fighting vehicle, the Army network, the Paladin self-propelled Howitzer, the Joint Light Tactical Vehicle, and of course a lot of focus last year and this year on the issue of the aviation restructure. Also the Armored Multi-Purpose Vehicle.

SEXUAL ASSAULT

Finally, gentlemen, the Committee looks forward to an update on the prevention of sexual assault in the force and the prosecution of offenders. No one, no volunteer, should ever be subject to assault, and our Committee will not tolerate it.

FUNDING LIMITATION

Mr. Secretary, General, the Committee is deeply concerned about the challenges facing the Army for both the current operations and readiness for the future. The House budget resolution passed yesterday, thank goodness, is an early step towards relief from the straitjacket of the Budget Control Act. However, in lieu of a compromise, we will be forced to produce a fiscal year 2016 bill that cuts approximately \$6 billion from your request. We do not want to do that, you do not want us to do that either, but in the meantime we will ask you for a clear picture of what the Army will look like at the reduced funding level and how the Army measures up to the requirements of the National Defense Strategy.

I will be asking our witnesses for their summarized statements in a moment, but first I want to recognize my ranking member, Mr. Visclosky, for any comments he may wish to make.

REMARKS OF MR. VISCLOSKY

Mr. VISCLOSKY. Chairman, thank you for holding the hearing.

Gentlemen, thank you for your service and being here today. I look forward to your testimony.

Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you, Mr. Visclosky.

The chair is very pleased to welcome the big chair, Mr. Hal Rogers from Kentucky.

Any comments you care to make, Mr. Chairman.

REMARKS OF MR. ROGERS

Mr. ROGERS. Well, I thank you, Mr. Chairman.

And, Mr. Secretary, we are delighted to see you back on your home turf here on the Hill, and General.

The men and women you lead in the Army are dedicated, they are talented, and they are tireless. They continue to answer the call time and again to serve the needs of our country abroad and to demonstrate true leadership here at home.

As the world becomes more complex and more dangerous, the demands on our troops are increasing. This Committee recognizes their sacrifice and the sacrifice of their families, and we stand ready to support them in every way. We thank them for their service, and you, and for your leadership in challenging times.

A lot has changed since the last time you came before this subcommittee. Russian aggression is fueling conflict and staggering loss of life in the Ukraine, putting the current death toll at well over 6,000.

The Islamic State continues to further destabilize and torment Iraq and Syria, and now establishing a presence in Afghanistan and Pakistan.

In Afghanistan, we have seen a decline in security due to a resurgence of the Taliban, requiring us to maintain a presence of 10,000 troops in that country this year, as the President announced earlier this week.

And we still have U.S. troops deployed in the fight against Ebola, a disease that has claimed over 10,000 lives in a matter of months.

While it seems as though increased force structure is warranted in the face of such unpredictable challenges confronting our troops, instead we are doing quite the opposite. As you said in your testimony to the Senate Armed Services Committee earlier this year, Active end strength has been cut by 80,000 and the National Guard and Reserve reduced by 18,000 just in the last 3 years. Thirteen brigade combat teams have been deactivated, and the rest are undergoing massive reorganizations. Three active combat aviation brigades currently being eliminated, including one in my home State of Kentucky at Fort Campbell.

Just after the 159th Combat Aviation Brigade returned from a 9-month deployment in Afghanistan, the Army announced it would be disbanded and its soldiers sent elsewhere. The elimination of

this critical—and topnotch, I may add—CAB will result in the loss of some 3,000 personnel at Fort Campbell. Once the 159th Combat Aviation Brigade has been eliminated at the end of the current fiscal year, the Army will be left with just 10 CABs in the Active Force.

With the Army scheduled to continue on with this trend until it reaches 490,000 troops at the end of this year, we must have a thoughtful conversation about how we will respond to increasing threats on multiple continents against very different enemies, and simultaneously. The demands on our Army are great, and your budget request reflects that reality.

I look forward, Mr. Chairman, to this discussion today with the Secretary and the General.

This Committee remains confident with the leadership of the Army in your capable hands. You have our support and our gratitude. We thank you for the many years of service both of you have offered to this Nation. And we are especially proud of our former colleague, the Secretary, for the great service he is rendering his country even yet.

Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you, Chairman Rogers.

Mr. Secretary, the floor is yours. Thank you for being with us.

SUMMARY STATEMENT OF SECRETARY McHUGH

Mr. McHUGH. Thank you, Mr. Chairman. Thank you, distinguished Ranking Member Visclosky. And I am particularly honored to have the opportunity to appear today before the chairman of the full Committee, and I appreciate his very gracious comments. In most ways this morning, as always, it is good to be back.

I do appreciate most of all to have the opportunity to talk to all the members of this critically important subcommittee on the danger really that lies ahead that both the chairman of the full Committee and the subcommittee chairman spoke about just moments ago, that particularly we will be facing should this budget not be enacted and sequestration allowed to return.

REQUIREMENTS ON THE ARMY

And as, again, has been noted in several opening comments, it really is amazing how much can change in just a year. Mr. Rogers and Mr. Frelinghuysen both spoke about the challenges that have come about in very short timeframes and very close succession: renewed aggression by Russia, increased threats from North Korea, gains by radical terrorists in Iraq, Syria, and obviously Yemen, not to mention the fight against Ebola. The demand for your Army to tackle contingencies around the world have grown, in our estimation, at a truly alarming rate.

Far from being foreseeable, our requirements have been more unexpected, our enemies more unpredictable, and our ability to handle multiple simultaneous operations, as Mr. Rogers noted, has become more uncertain. And yet with such volatility and instability around the world, America's Army is faced yet again with an enemy here at home: the return of sequestration, unprepared units, unmaintained equipment, untrained soldiers.

SEQUESTRATION

Ladies and gentlemen, our Army, your Army, faces a dark and very dangerous future unless this Congress makes every effort to act now to end these ill-conceived and inflexible budget cuts. Moreover, and I want to be very clear here, every installation, every component, nearly every program will feel the brunt of these cuts.

Under sequestration, by 2019, we will reduce our end strength to what we believe are unconscionable levels, likely losing, in addition to the losses that have already been cited here this morning, another six BCTs and potentially a division headquarters, not to mention the very real impacts to associated enablers, contracts, facilities, and civilian personnel.

ARMY DEPLOYMENTS

In spite of all that, I would like to share just a little of the accomplishments of America's Army this year. As Russian-backed forces rolled into Ukraine and Crimea and threatened instability, our soldiers rapidly deployed to Eastern Europe in a demonstration of U.S. commitment and resolve. From Latvia, Lithuania, to Poland and Estonia, soldiers from the 103rd Airborne and the 1st Cavalry showed the world that America would stand up with our NATO allies and respond to unbridled aggression.

In West Africa, as thousands suffered from the scourge of Ebola, your Army acted. Elements of several units, led by the 101st Airborne, provided command and control, equipment and expertise to support efforts to stop this deadly and destabilizing disease.

In response to rapid gains by ISIL, your soldiers quickly returned to Iraq to advise and assist security forces in turning the tide on this barbaric group of radical terrorists.

And in the Pacific, thousands of soldiers and civilians supported operations to strengthen our partnerships and increase our substantial presence.

Today, as we speak, the headquarters of nine active Army and two Guard divisions are committed to combatant commands, and some 143,000 soldiers are deployed, forward stationed or committed, including over 19,000 mobilized reservists. Moreover, we have done all of this while continuing to transform our formations to make them leaner, more agile, and far more lethal.

PERSONNEL

As all of you on this distinguished subcommittee know so well, extraordinary success comes at a price, for in the end, the young lieutenant leading his or her platoon, the sergeants training and mentoring their soldiers, the invaluable civilian workforce laboring countless hours to support them, and the young family waiting patiently at home are all human. The stress of war, multiple deployments, and unpredictable requirements doesn't change in the face of indiscriminate funding cuts.

Through it all, we have and will remain committed to supporting the needs of our warriors. From programs to increase resilience and improve behavioral health, to the prevention of sexual assault and the protection of victims from retaliation, we will keep faith

with our soldiers. But rest assured, the return of sequestration will directly impact critical installation and family programs Armywide.

Simply put, we need the President's budget. A \$126.5 billion request, as the chairman noted, is some \$6 billion over the potential sequester level and it is specifically designed to preserve our modest gains in readiness over the last year and take care of your soldiers.

Moreover, this request seeks vital reforms to compensation and force structure that will ensure the funding needed to support near-term readiness and help place the Army on a predictable path to balance. From modest changes to pay and allowances to our Aviation Restructuring Initiative, our reforms are both necessary and prudent to sustain the readiness of our forces and move the Army toward eventual balance. I can't emphasize how critical these funds and reforms are to ensuring your Army has sufficiently trained and ready soldiers to protect our Nation.

I also recognize that we have a duty to prudently use the scarce resources that the American people provide. From my first day in office, I have sought and supported numerous reforms and efficiencies. From improving our procurement processes to drastically cutting our headquarters, we take stewardship very seriously.

ACQUISITION

Historically, the Army's track record on acquisition programs is too often a tale of failure: too many underperforming or cancelled programs, too few successful fieldings of developmental designs, and far too many taxpayers' dollars wasted. We know this. In this critical area, while many significant strides have been made over the last 5 years in significantly reducing bureaucracy and improving our oversight, we still have a long way to go.

SUMMARY

Ladies and gentlemen, this is truly an historic moment. We need to stop talking and start acting. We need wisdom, not words. We need results, not rhetoric. And as I said before this subcommittee last year, we need predictability, not politics.

As we face extreme instability around the world, we must have certainty here at home. Your soldiers deserve no less. We must have an end to sequestration this year and we must have this budget.

On behalf of the nearly 1.3 million men and women of America's Army, Active, Guard, Reserve, and civilian, thank you for your continued oversight, your partnership, your leadership, and the unending support you have provided to our military for so many, many years.

Thank you, Mr. Chairman. I look forward to your questions.

Mr. FRELINGHUYSEN. Thank you, Mr. Secretary.

[The joint statement of Secretary McHugh and General Odierno follows:]

RECORD VERSION

STATEMENT BY

THE HONORABLE JOHN M. MCHUGH
SECRETARY OF THE ARMY

AND

GENERAL RAYMOND T. ODIERNO
CHIEF OF STAFF
UNITED STATES ARMY

BEFORE THE

HOUSE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON DEFENSE

FIRST SESSION, 114TH CONGRESS

ON THE POSTURE OF THE UNITED STATES ARMY

MARCH 26, 2015

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COMMITTEE ON APPROPRIATIONS

**STATEMENT BY
THE HONORABLE JOHN M. MCHUGH
SECRETARY OF THE ARMY
AND
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EXECUTIVE SUMMARY

Now more than ever, in today's uncertain and dynamic security environment, we must be prepared to meet multiple, wide-ranging requirements across the globe simultaneously while retaining the ability to react to the unknown. The velocity of instability around the world has increased, and the Army is now operating on multiple continents simultaneously in ways unforeseen a year ago. In short, our Army is busy. We are fully engaged and our operational tempo will not subside for the foreseeable future. In the wake of Russia's intervention in Ukraine, the Army deployed forces to Eastern Europe in a demonstration of U.S. commitment and resolve. In West Africa, the Army provided support for the U.S. Agency for International Development's humanitarian mission to stem the tide of the Ebola virus. In response to regional instability in the Middle East, Army forces have recommitted to advise and assist Iraqi government forces and the Kurdish *Peshmerga*. Across the Pacific, thousands of Army forces are supporting operations to strengthen our partnerships and alliances as part of Pacific Pathways in places like Thailand, the Philippines, Malaysia, Australia, Indonesia and the Republic of Korea. We remain committed to protecting the enduring Armistice on the Korean Peninsula. Our Soldiers remain on point in Afghanistan, even as we draw down our forces there. Currently, nine of ten Regular Army and two Army National Guard division headquarters are committed in support of Combatant Commands, with more than 143,000 Soldiers deployed, forward stationed, or committed and 19,000 Reserve Soldiers mobilized.

Last year, we testified that the minimum force necessary to execute the defense strategy was a force floor of 450,000 in the Regular Army, 335,000 in the Army National Guard and 195,000 in the Army Reserve – a total of 980,000 Soldiers. That assessment has not changed and is based on certain planning assumptions regarding the duration, number and size of future missions. When determining these assessed force levels, we also made clear that risks at this level would grow if our underlying assumptions proved inaccurate. Although we still believe we can meet the primary missions of the Defense Strategic Guidance (DSG) today, our ability to do so has become tenuous. There is a growing divide between the Budget Control Act's (BCA) arbitrary funding mechanism –

that has seen the Army budget drop in nominal terms every year since enacted in 2011 – and the emerging geopolitical realities confronting us now across Europe, the Middle East, Africa and the Pacific, along with the growing threats to our homeland. Risk thereby increases to our force, our national security and our Nation. As the Army approaches a Total Army end strength of 980,000 Soldiers by FY18, we must constantly assess the operational tempo and its impacts on the health and viability of the force. We must ensure we have both the capability to respond to unforeseen demands and the capacity to sustain high levels of readiness.

So, as the Army looks to the future and continues to downsize, we have developed a new Army Operating Concept, “Win in a Complex World.” The foundation of the Army Operating Concept is our ability to conduct joint combined arms maneuver. The Army Operating Concept endeavors to build a force operating alongside multiple partners able to create multiple dilemmas for our adversaries, while giving commanders multiple options and synchronizing and integrating effects from multiple domains onto and from land. Recognizing the changing world around us, the Army Operating Concept envisions an Army that is expeditionary, tailorable, scalable and prepared to meet the challenges of the global environment. The Army Operating Concept sets the foundation upon which our leaders can focus our efforts and resources to maintain strategic and operational flexibility to deter and operate in multiple regions simultaneously – in all phases of military operations – to prevent conflict, shape the security environment and win wars now and in the future.

Nevertheless, fiscal challenges brought on by the BCA strain our ability to bring into balance readiness, modernization and end strength. The BCA puts at significant risk the Army's ability to meet the Army's obligations within the DSG and fulfill its national security requirements. Even as demand for Army forces is growing, budget cuts are forcing us to reduce end strength to dangerously low levels. We face an “ends” and “means” mismatch between requirements and resources available.

The BCA and sequestration have already had a detrimental impact on readiness and modernization. Budget constraints have significantly impacted every Army modernization program, forcing the delay of critical investments in next generation capabilities, to include training support and power projection capabilities across Army installations. Although the Bipartisan Budget Agreement (BBA) provided fiscal relief to the Army in FY14, in FY15 the Army budget decreased by \$6B. We now face a FY16 defense spending cap insufficient for operating in an unstable global security environment that presents the Army with a number of urgent, complex and challenging missions. The FY16 spending cap – set almost four years ago – has not kept pace with the geopolitical reality unfolding around the world.

We know we must strike a balance between resources and capacity. The Army fully supports fiscal responsibility and has worked diligently and consistently to be a good steward of

taxpayer dollars. In that regard, we have made many tough choices. There are critical cost-saving measures that allow the Army to further reallocate scarce resources to ensure Army forces remain as trained and ready as possible. These include compensation reform, sustainable energy and resource initiatives, a new round of Base Realignment and Closure (BRAC) and the Aviation Restructure Initiative (ARI). We ask Congress to support these initiatives because without the flexibility to manage our budgets to achieve the greatest capability possible, we will be forced to make reductions to manpower, modernization and training that are larger, less efficient and longer-standing in the damage they inflict on the Army.

We also need consistent and predictable funding. The use of Continuing Resolutions wreaks havoc with Army readiness, modernization and end strength. It makes long term planning difficult, especially with the uncertainties that exist if we return to sequestration in FY16. As a result, we are forced to train intermittently and the materiel and equipment we buy costs more and takes longer to acquire. This ongoing budgetary unpredictability is neither militarily nor fiscally responsible. To maintain an appropriate level of readiness, the Army must receive consistent funding for training each year. Unless Congress eases the BCA defense caps, the Army will experience degraded readiness coupled with increased risk, making it more difficult for us to provide for the common defense. Each passing year, the BCA increases risk for sending insufficiently trained and equipped Soldiers into harm's way, and that is not a risk our Nation should accept.

Lastly, our profession is built on trust. In holding true to that trust, our Nation expects our competence, commitment and character to reflect our Army values. To that end, we are working to reduce and, in the future, eliminate sexual assault and sexual harassment, which destroys good order and discipline and is contrary to our core values. We are also increasing opportunities for women and opening positions based on standards free of any gender bias. Finally, our programs like Soldier for Life and the Ready and Resilient Campaign are demonstrating our sacred commitment to care for our Soldiers, our Civilians and their Families who selflessly sacrifice so much. These are actions we have taken because it is the right thing to do.

INTRODUCTION

Last year, we testified before Congress that the minimum end strength the Army requires to execute the 2012 Defense Strategic Guidance is 980,000 Soldiers – 450,000 in the Regular Army, 335,000 in the Army National Guard and 195,000 in the Army Reserve. We described how the Army moved to implement the 2014 Quadrennial Defense Review (QDR) guidance by shaping the force while supporting the fight in Afghanistan and deploying forces to address several unexpected challenges around the world. In contrast to the projections outlined in the defense strategy, the regional security and stability in Europe, Africa, the Middle East and the Pacific have deteriorated over the past 12-24 months in ways we did not anticipate. These growing and emerging threats to the global security environment compel us to rethink our assessment of the drawdown. For the next three years, as we restructure to operate as a smaller force, the Army faces readiness challenges and extensive modernization delays. Under the President's Budget, we will begin to regain balance between end strength, modernization and readiness beyond FY17. Although we still believe we can meet the fundamental requirements of the DSG at 980,000 Regular, Guard and Reserve Soldiers, it is a tenuous balance. The risk to our national security and our force itself continues to increase with rising instability and uncertainty across Europe, the Middle East, Africa and the Pacific, along with a growing threat to the homeland. Any force reductions below 980,000 Soldiers will render our Army unable to meet all elements of the DSG, and we will not be able to meet the multiple challenges to U.S. national interests without incurring an imprudent level of risk to our Nation's security.

INCREASING VELOCITY OF GLOBAL INSTABILITY

The accelerating insecurity and instability across Europe, the Middle East, Africa and the Pacific, coupled with the continued threat to the homeland and our ongoing operations in Afghanistan, remain a significant concern to the Army. The Islamic State in Iraq and the Levant's (ISIL) unforeseen expansion and the rapid disintegration of order in Iraq and Syria have dramatically escalated conflict in the region. Order within Yemen is splintering; the al Qaeda insurgency and Houthi expansion continues there; and the country is quickly approaching a civil war. In North and West Africa, anarchy, extremism and terrorism continue to threaten the interests of the United States, as well as our allies and partners. In Europe, Russia's intervention in Ukraine challenges the resolve of the European Union. Across the Asia-Pacific, China's lack of transparency regarding its military modernization efforts raise concerns with the United States and our allies, and the continuing development of North Korea's nuclear and missile programs contributes to instability. The rate of humanitarian and disaster

relief missions, such as the recent threat of Ebola, heightens the level of uncertainty we face around the world, along with constantly evolving threats to the homeland. With the velocity of instability increasing around the world, continuing unrest in the Middle East, and the threat of terrorism growing rather than receding—witness the recent tragedies in Paris and Nigeria—now is not the time to drastically reduce capability and capacity.

The Army, as part of the Joint Force, operates globally in environments characterized by growing urbanization, the potential for the proliferation of weapons of mass destruction, malicious cyber and information operations, humanitarian crises and the deleterious effects of climate change. Sectarian violence exploited by state and non-state actors, irredentism and terrorist activities are driving conflict around the world. The corrosive effects of drug and human trafficking by transnational criminal organizations undermine state authority and trigger a destabilizing level of violence in places such as Central and South America. These combined factors lead to vulnerable populations and threats that appear across multiple domains, the sum of which will continue to challenge global security and cooperation in ways that are difficult to anticipate.

No single strategic challenger is likely to gain overall superiority over U.S. military capabilities in the near future. Even so, competitors of the U.S. seek to negate our strengths, exploit our vulnerabilities and gain temporary or local superiority in one or more capability areas. It is unlikely any of these challengers will choose traditional force-on-force confrontation with American forces. Instead, potential adversaries are likely to pursue and emphasize indirect and asymmetric techniques. Their strategies may include employing anti-access/area denial capabilities, using surrogates, subverting our allies, using cyber and information operations, staying under our threshold for combat or simply prolonging conflict to test our resolve.

One of the most important global security bulwarks is the U.S. network of security alliances and partners. This valuable asset to U.S. national security and global stability is entering a period of transition. Traditional allies in Europe face significant economic and demographic burdens that exert downward pressure on defense budgets. As a consequence, allies and partners who have joined us in past coalition operations may be less apt to do so in the future. Building the security capacity necessary for regional stability requires sustained and focused engagement. Active engagement with allies, friends and partners is resource-intensive, but will be essential to sustaining global multilateral security. This combination of threats and conditions creates an increasingly dangerous and unpredictable operational environment and underscores the need for a U.S. Army that is agile, responsive and regionally engaged.

DEMAND FOR A GLOBALLY RESPONSIVE AND REGIONALLY ENGAGED ARMY

It is imperative we maintain strategic and operational flexibility to deter and operate in multiple regions simultaneously – in all phases of military operations – to prevent conflicts, shape the security environment and, when necessary, win in support of U.S. policy objectives. The Army is and will continue to be the backbone of the Joint Force, providing fundamental capabilities to each of the Combatant Commanders such as command and control, logistics, intelligence and communications support to set the theater, as well as providing ground combat forces, Special Operations Forces and Joint Task Force headquarters. Demand for Army capabilities and presence continues to increase across Combatant Commands in response to emerging contingencies. The Army has sent rotational forces to Europe, Kuwait and the Republic of Korea, and established JTF Headquarters in Iraq, Afghanistan, Honduras, the Horn of Africa and Jordan. In multiple Areas of Responsibility, the Army is meeting simultaneous requirements based on our ten primary DSG missions. As part of the Joint Force, we support Combatant Commanders and work with interagency partners and our allies to enhance security cooperation, provide foreign humanitarian assistance, build partner capacity and participate in multi-lateral exercises.

We are making the Army more agile, adaptable and expeditionary than ever before. For example, there is an infantry battalion forward-deployed in Djibouti, and units in Kuwait positioned to quickly respond anywhere in the Middle East. Even as we reduce our presence in Afghanistan, the global demand for Brigade Combat Teams (BCTs), the Army's basic warfighting units, is projected to decrease by only one before 2016. Combatant Commanders' demand for Patriot missile battalions and Terminal High Altitude Air Defense (THAAD) batteries exceeds our capacity, significantly limiting options in emerging crises, and exceeding the Army's ability to meet Department of Defense (DoD) deployment-to-dwell rotation goals for these units. In FY16, we expect Combatant Command and Interagency demand for Army forces will increase further in areas such as logistics, intelligence, cyber, space, air and missile defense, signal, aviation, Special Operations Forces and mission command.

Demand for Army division headquarters is already high and we expect this trend to continue. Combatant Commanders rely upon the proven mission-command capabilities of our division headquarters and the essential shaping effects of Army enabler units including Intelligence, Surveillance and Reconnaissance (ISR) platforms. In the last year, we deployed the 1st Infantry Division headquarters to U.S. Central Command in support of the multinational effort to defeat ISIL, and we delivered the 101st Airborne Division (Air Assault) headquarters to synchronize national and international efforts to counter the Ebola virus in West Africa.

Additionally, 1st Armored Division Headquarters conducts operations in Jordan; 2nd Infantry Division protects the Republic of Korea; 3rd Infantry Division advises and assists in Afghanistan; and 4th Infantry Division assures our allies in Europe. All told, elements of nine out of ten Regular Army division headquarters and two Army National Guard division headquarters, including the Global Response Force, are currently deployed or prepared to deploy around the globe supporting commitments to the Pacific Theater and the Republic of Korea; Afghanistan, Jordan, Iraq and Kuwait; Africa; Eastern Europe; and the homeland.

Consequently, we must size and shape the Army for the world in which we live. First, through the Army, and the presence it provides, we will fulfill our collective security obligations, defend our citizens and protect our national interests when the Nation calls upon us. Second, a robust Army provides Combatant Commanders with essential capacity to more fully engage allies and shape the security environment across their areas of responsibility. Finally, appropriate Army force levels reduce the risk of being "too wrong" in our assumptions about the future.

Unlike previous eras and conflicts, today's fast-paced world simply does not allow us the time to regenerate capabilities after a crisis erupts. Faced with a national crisis, we will fight with the Army we have, but there will be consequences. Generating the Army is a complex endeavor that requires policy decisions, dollars, Soldiers, infrastructure and, most importantly, time. It takes approximately 30 months to generate a fully manned and trained Regular Army BCT once the Army decides to expand the force. Senior command and control headquarters, such as divisions and corps, take even longer to generate and train to be effective given the skill sets and training required of Soldiers manning these formations. Overall, we must acknowledge that today's highly-technological, All-Volunteer Force is much different than the industrial age armies of the past.

Finally, with flexibility to balance structure, modernization and readiness within budgetary authority, we can best mitigate the risk imposed by budget reductions and end strength reductions to adapt to a rapidly-changing operating environment. Achieving this balance will enhance our ability to redesign the force for the future, experiment with new, innovative operational concepts and rebuild critical collective skills, all while taking care of our Soldiers and their Families in a manner consistent with their service and sacrifice.

Army Operating Concept: Win in a Complex World

Even as the Army confronts the many challenges wrought by sequestration, we continue to seek efficiencies while adapting to the complexities of an evolving and unstable security environment. It is imperative that our Army adapts to the future joint operating environment, one

that consists of diverse enemies that employ traditional, irregular and hybrid strategies which threaten U.S. security and vital interests. In October of last year, we introduced the new Army Operating Concept, "Win in a Complex World." The foundation of this concept is our ability to conduct joint combined arms maneuver. It endeavors to build a force operating alongside multiple partners able to create multiple dilemmas for our adversaries, while giving commanders multiple options and synchronizing and integrating effects from multiple domains onto and from land. Recognizing the changing world around us, the Army Operating Concept envisions an Army that is expeditionary, tailorable, scalable and prepared to meet the challenges of the global environment. The Army Operating Concept reinforces our five strategic priorities:

1. Develop adaptive Army leaders for a complex world;
2. Build a globally responsive and regionally engaged Army;
3. Provide a ready and modern Army;
4. Strengthen our commitment to our Army profession; and
5. Sustain the premier All-Volunteer Army.

The Army Operating Concept also describes the Army's contribution to globally integrated operations. Army forces provide foundational capabilities required by the Combat Commanders to synchronize and integrate effects across land and from land into the air, maritime, space and cyberspace domains. The Army Operating Concept ensures that we are prepared to lead Joint, interorganizational and multinational teams in complex security environments.

Through a dedicated "Campaign of Learning" under Force 2025 Maneuvers, we will assess new capabilities, design and doctrine. This enables future innovation of our expeditionary capabilities and enhanced agility. We are assessing key capabilities such as manned-unmanned teaming, operational energy and expeditionary command posts. We are focusing our innovation efforts in this Campaign of Learning to ensure we address the 20 Army Warfighting Challenges. The Army Warfighting Challenges are the enduring first-order problems, and solving them will improve combat effectiveness. These challenges range from shaping the Security Environment, to countering Weapons of Mass Destruction, to conducting Space and Cyber Operations, to Integrating and Delivering Fires to Exercising Mission Command. The Army Operating Concept represents a long-term, cost-effective way to enhance readiness, improve interoperability and modernize the force. It is also a cost-effective way to assess and demonstrate Joint and multinational interoperability and readiness. We must continue to learn and apply what we learn as we rethink how the Army operates to "Win in a Complex World."

President's Budget Request

This year, the President's Budget requests \$126.5B for the Army base budget. This budget request is about \$5.4B above what the Congress enacted in FY15. The President's Budget requests \$6B more than an expected sequester-level budget. This additional \$6B will be invested in readiness and procurement:

- \$3.4B for training, sustainment and installation programs directly supporting combat readiness; and,
- \$2.6B for Research and Development, and Acquisition accounts in order to equip Soldiers across the Regular, Guard and Reserve forces, sustain critical parts of the industrial base and invest in innovation supporting the Army Operating Concept.

These increases are critical to achieving sustainable readiness needed to meet the demands of today's complex environment, while preserving manpower needed to prevent hollowness in our formations.

As Congress reviews our budget for this year, we ask that you compare our funding levels to what we asked for and executed in FY13 and FY14, rather than to the near-sequestration level funding enacted in FY15. With the support of Congress, the Army executed \$125B in FY14 to begin rebuilding readiness lost in FY13 due to sequestration. The FY15-enacted level of \$121B is challenging commanders across the Army to sustain readiness while reorganizing formations to operate as smaller forces. In FY15, we are significantly reducing key installation and family services, individual training events and modernization to such an extent as to jeopardize future readiness and quality of life. The Army's budget request for FY16 continues to focus on building near term readiness through predictability and continuity in funding levels.

One critical assumption in the President's Budget request is that Congress will enact necessary compensation and force restructuring. We fully support modest reforms to pay raises, health care and other benefits that have been proposed. Without these reforms, savings assumptions we have included in our planning will not be realized, placing increasing pressure on further end strength reductions and reducing funding needed to sustain readiness. The President is proposing over \$25B in compensation reforms including slowing the growth of Basic Allowance for Housing, changing TRICARE, reducing the commissary subsidy and slowing the growth in basic pay. Should Congress fail to enact these reforms, the effects of budget shortfalls in programs and services throughout the force will wreak havoc on our formations. We will have to make decisions at every Army installation that will impact the quality

of life, morale and readiness of our Soldiers. Without appropriate compensation reform, the Army would need an additional \$10.4B across the program years to meet our basic requirements. To the extent Congress does not approve the extra topline or the reforms, we would have to find another \$2-3B per year in reductions, thereby further diminishing the size and capability of our fighting force. None of these reforms are easy, but all are necessary.

One of our most important reforms is the Aviation Restructuring Initiative (ARI), which we continued in FY15. Our current aviation structure is unaffordable, so the Army's plan avoids \$12B in costs and saves an additional \$1B annually if we fully implement ARI. We simply cannot afford to maintain our current aviation structure and sustain modernization while providing trained and ready aviation units across all three components. Our comprehensive approach through ARI will ultimately allow us to eliminate obsolete airframes, sustain a modernized fleet, and reduce sustainment costs.

Through ARI, we will eliminate nearly 700 aircraft and three Combat Aviation Brigades from the Active Component, while only reducing 111 airframes from the Reserve Component. ARI eliminates and reorganizes structure, while increasing capabilities in order to minimize risk to meeting operational requirements within the capacity of remaining aviation units across all components. If the Army does not execute ARI, we will incur additional costs associated with buying additional aircraft and structure at the expense of modernizing current and future aviation systems in the total force.

Although we disagree with the need for a Commission on the Future of the Army, as directed in the National Defense Authorization Act, we will fully support the Commission as it examines and assesses the force structure and force mix decisions the Army has proposed for Active and Reserve Components.

Impacts of Sequestration

In support of the President's FY15 budget request, which reflected the outcomes of the Secretary of Defense's 2013 Strategic Choices and Management Review (SCMR) and the 2014 QDR, we emphasized that the updated defense strategy, combined with reduced Army force levels, had increased the risk level to "significant," and would become manageable only after the Army achieved balance between end strength, readiness and modernization. At force levels driven by affordability under full sequestration, the Army cannot fully implement its role in the defense strategy. Sequestration would require the Army to further reduce our Total Army end strength to at least 920,000, or 60,000 below the 980,000 currently reflected in the President's Budget request.

Global demands for the Army are increasing, but end strength, readiness and modernization cuts greatly reduce our ability to respond at a time when the instability is accelerating worldwide. As a result, we are faced with an ends and means disparity between what is required of us and what we are resourced to accomplish. This has real impacts for our national security. Long-term fiscal predictability will allow the Army to balance force structure, end strength, modernization and readiness, while providing the Nation a trained and ready force prepared to win in a complex world. Without this investment, we will see immediate degradations in recruiting, manning, training, equipping and sustaining Army readiness during a time of great uncertainty and growing worldwide instability.

Although we are already expecting a decline in the overall readiness of our forces in FY15, it pales in comparison to the decrease of readiness under expected sequester levels in FY16. Sequestration measures will not only dissipate the modest gains we achieved, but will leave the Army in a hollow and precarious state. The impact of sequestration on the Army's FY16 funding levels would cause an abrupt and immediate degradation of training, readiness and modernization. Relief from full sequester-levels in FY14 provided some predictability and allowed for partial recovery from FY13's low readiness levels. However, the Army demonstrated a need for funding above the enacted \$121B topline in FY15, as savings from drawing down end strength are manifesting as rapidly as possible. Current funding levels afforded just over a third of our BCTs the training necessary to conduct decisive action. This year, we face significant challenges to sustain even that level of readiness in our dynamic operating environment.

If sequestration remains unchanged, the consequences for our Army will be dramatic. Another round of cuts will render our force unable to meet all elements of the DSG without creating additional risk to our soldiers. Reductions in end strength brought on by sequestration will limit our ability to provide strategic options to the President and pose unacceptable risk by placing into question our capacity to execute even one prolonged, multi-phased major contingency operation. We will experience significant degradations in readiness and modernization, which will extend adverse impacts well into the next decade, exacerbating the time the Army requires to regain full readiness. The Nation cannot afford the impacts of sequestration. Our national security is at stake.

Achieving End Strength Reductions

By the end of FY15, we will have reduced the Regular Army by over 80,000 Soldiers, 8,000 in the Army National Guard and 7,000 in the Army Reserve. Commensurate with these reductions, the Army will achieve an end strength by the end of FY15 of 490,000 Regular Army,

350,000 Army National Guard and 202,000 Army Reserve. Consistent with available budget resources, the 2014 Quadrennial Defense Review and the DSG, the Army will continue to reduce its end strength in FY16 as follows: the Regular Army will shrink by 15,000 (3.1%) to 475,000; the Army National Guard will shrink by 8,000 (2.3%) to 342,000; and the Army Reserve will shrink by 4,000 (2%) to 198,000.

To achieve required end strength reductions, we will need to separate Soldiers who have served their nation honorably. Cumulatively, we will have reduced our Regular Army end strength from a wartime high of 570,000 to 475,000 by the end of 2016 (17% reduction), while our Army National Guard will have reduced its end strength from a wartime high of 358,000 to 342,000 (4.5% reduction) and the Army Reserve will have reduced its end strength from a wartime high of 205,000 to 198,000 (3.4% reduction). These reductions put the Army on a glide path to meet the targeted force of 980,000 in FY18. For all components of the Army, this end strength is smaller than the pre-2001 force structure.

Although we are making reductions in the overall end strength of the Army National Guard and U.S. Army Reserve, we have continued to invest in higher Full Time Support levels, including Active Guard and Reserve, Military Technicians and Civilians. This budget supports 82,720 Full Time Support positions in FY16 as compared to 68,000 in FY01. This level of Full Time Support constitutes a 20% increase since 2001.

In the Army Civilian workforce, we have reduced Department of the Army Civilians from the wartime high levels of 285,000 and will continue to reduce appropriately over the coming years. While necessary, these reductions in the Civilian workforce have and will continue to adversely impact capabilities such as medical treatment, training, depot and range maintenance, installation emergency services, physical security and select intelligence functions. In all of the reductions across the Total Army, we are taking prudent measures to ensure we balance requirements and capacity.

To achieve planned end strength reductions, the Army expects to use various types of separation authorities across all elements of the Total Force. The FY12 and FY13 National Defense Authorization Acts provided several authorities to help the Army shape the force over the drawdown period, along with the flexibility to apply them to meet specific grade and skill requirements. Under normal loss rates, we would not be able to reach our end strength goal during the FY15-FY17 period. There is no single force-shaping method among the choices of accession, retention and separation that allows the Army to achieve its end strength goals; inevitably, we will have to involuntarily separate quality Soldiers. Closely managing accession

levels, selectively promoting and following more stringent retention standards will help shape the force over time.

Although the Army expects to lose combat-seasoned Soldiers and leaders, throughout this process, our focus will be on retaining individuals with the greatest potential for future service in the right grades and skills. As Soldiers depart the Regular Army, we are committed to assisting them and their Families as they reintegrate into civilian communities. Leaders across the Army are engaged in "Soldier for Life," a continuum of service concept that facilitates transition to civilian employment, educational opportunities and service in the Reserve Components.

ENSURING A READY ARMY

During this period of drawdown, the Army is reorganizing, realigning and restructuring forces. The Brigade Combat Team reorganization enhances brigade combat power by adding a third maneuver battalion to 38 BCTs by the end of FY15 and reducing the total number of BCTs to 60 (32 Regular Army and 28 Army National Guard) in the Total Force.

Since May 2014, we have been developing a sustainable force generation and readiness model to account for the new, volatile, strategic operating environment; the need to remain regionally-engaged and budgetary and force sizing realities. The Sustainable Readiness Model will provide force generation policies and processes that optimize the readiness of the force and balance the Army's steady state missions, contingency response capability and available resources. We cannot predict the specific events that will cause the next demand for Army forces, but history suggests it will come sooner than we expect. All components of the Army must remain sized and postured as essential members of the Joint Force to protect the Nation and its interests.

Even with funding relief from sequestration in FY14, in FY15 we returned to near-sequestration level funding, resulting in just a third of our BCTs trained in their core mission capabilities in decisive action. The President's Budget request increases readiness funding above FY15 levels, which is critical to sustaining and improving readiness of the force. In FY14, the Army completed 19 rotations at the Combat Training Centers (CTCs), including six rotations for deploying BCTs and 13 decisive action training rotations (12 Regular Army and one Army National Guard). FY15 funding levels challenge Army commanders to sustain continuity in readiness across the force; however, we remain committed to CTC rotations to build leader and unit readiness. FY15 plans fund 19 CTC rotations, with 15 Regular Army and two Army National Guard decisive action rotations, with FY16 continuing this level of CTC exercises. We are improving Training Support Systems to enable more realistic home station training, increase

collective training proficiency and enhance operational readiness for contingencies across the globe; however, funding constraints in FY15 impede our ability to maximize home station training goals. The President's Budget request for FY16 allows the Army to increase training readiness to battalion-level across the Active Component force and to platoon-level in the Reserves. Lower funding levels will not allow us to achieve this balanced readiness.

Although the Army attempts to mitigate the impacts on training readiness, we must continue to implement the Contingency Force model of FY15 in order to maintain readiness for the 24 of 60 BCTs that will receive sufficient funding to conduct training at CTCs and home station. Funding shortages will limit the remaining 36 BCTs to minimum Individual/Crew/Squad resourcing levels through sufficient Training Support Systems (TSS). In short, sequestration forces the Army to ration readiness. Regardless of funding levels, we are committed to keeping CTCs a priority.

Our aim is to provide tough, realistic multi-echelon home station training using a mix of live, virtual and constructive methods that efficiently and effectively build Soldier, leader and unit competency over time, contributing to the effectiveness of the current and future forces. Training will integrate the unique capabilities of the Light, Medium and Heavy forces, as well as the capabilities of Conventional and Special Operations Forces. Furthermore, we are optimizing the use of existing training capacity and leveraging other opportunities such as CTCs, exercises and operational deployments to maximize the training benefits of fixed overhead and operational costs. Training centers such as Joint Multinational Readiness Center will increase our interoperability with Allies. Our goal is to increase readiness from 33% to 70% of our Regular Army BCTs, allowing the Army to balance Combatant Command force requirements while maintaining surge capability – but we need consistent resources to get there. We are also increasing funding for our individual and institutional training. Funding increases focus on leader development, entry-level training and flight training. This allows the Army to develop its future leaders, prepare its Soldiers to operate in today's dynamic combat environment and provide trained and ready Soldiers to meet Combatant Commanders' requirements.

The Army continues to make progress in integrating the unique capabilities of each of its components to support the needs of the Combatant Commanders. As part of the Army's Total Force Policy, the U.S. Army Forces Command is leading the way by partnering every Guard and Reserve division and brigade with a Regular Army peer unit. The Army is also piloting a program to assign Guard and Reserve personnel directly to each Regular Army corps and division headquarters. For example, the Reserve Component rapidly provided support

capabilities in support of Operation United Assistance in Liberia to augment and replace elements of the initial Active Component response.

As we transition from combat operations in Afghanistan, our Army is focused on our ability to rapidly deploy forces around the world in order to meet the needs of our Combatant Commanders. To do this, we enhanced prepositioned equipment sets and created activity sets to support operations in Europe, the Pacific and around the world. Activity sets are prepositioned sets of equipment that enable U.S. regionally-aligned forces and multinational partners in Europe to train and operate. We have also reinvigorated our Emergency Deployment Readiness Exercise program and enhanced the en route mission command capability of our Global Response Force. The President's Budget request provides sufficient capability to respond in each Geographical Combatant Command's area of responsibility.

The Army continues to be a good steward of the resources appropriated for replacement, recapitalization and repair of materiel returning from operations conducted in Afghanistan. In 2014, the Army efficiently synchronized equipment retrograde out of theater. Redeployment and retrograde operations remain on schedule; however, the Army continues to forecast a need for reset funding for three years after redeployment of the last piece of equipment from theater. A steady, responsible drawdown of personnel and equipment demonstrates good stewardship of resources while facilitating transition to the post-2014 Resolute Support Mission in Afghanistan. In addition, we identified almost \$2B of potential requirement reductions in Contractor Logistics and Training Support, and took advantage of our wartime reset program to reduce Depot Maintenance by over \$1.3B over five years. These changes allowed the Army to increase the capability of its prepositioned stocks program without an increase in the associated costs.

The proliferation of information and communications technologies increases the momentum of human interaction, creating a constantly shifting geopolitical landscape. An Army that is globally engaged and regionally aligned requires access at the point of need, robust network capacity and capability that is tailorable and scalable. The Army's strategy is to effectively leverage joint networks, transition to cloud-based solutions and services, reduce the culture of controlling network resources and divest legacy systems to make way for resources to build network modernization. Over time, this will significantly boost information technology operational efficiency, improve mission effectiveness and posture the Army to more quickly adapt and innovate.

The Army continually seeks incremental improvements to its institutional organizations, processes and business systems in order to provide ready forces in the most fiscally

responsible way for the Nation. The Army is expanding its efforts to control the cost of business operations by reducing the size of headquarters units, which we view as a fiscal imperative. Progressive fielding of Enterprise Resource Planning systems is enhancing accountability, changing business processes and enabling the retirement of legacy systems that will ultimately reduce our overall costs. Our workforce is adapting to new systems and processes inherent in increased internal controls and enterprise connectivity across business domains. Army leaders are actively engaged in change management and committed to meeting audit readiness goals and the September 2017 audit assertion of our financial statements. We continue to challenge the status quo, enabling the institutional Army to perform its activities smarter, faster and at reduced cost to provide more resources for readiness.

ENSURING A MODERN ARMY

Modernization

Decreases to the Army budget over the past several years have had significant impacts on Army modernization and threaten our ability to retain overmatch through the next decade. Since 2011, the Army has ended 20 programs, delayed 125 and restructured 124. Between 2011 and 2015, Research and Development and Acquisition accounts plunged 35% from \$31B to \$20B. Procurement alone dropped from \$21.3B to \$13.9B. We estimate sequestration will affect over 80 Army programs. Major impacts include delays in equipping to support expeditionary forces, delays in combat vehicle and aviation modernization, increases in sustainment costs to fix older equipment and increases in capability gaps.

Our intent is to modernize and equip Soldiers with effective, affordable and sustainable equipment that is ready and tailorable to support the full range of Combatant Command requirements. The President's Budget request would provide over \$2B to address the growing gaps in our modernization accounts. Even with this additional funding, modernization remains more than \$3B short of the historical average as a percentage of the Army's budget.

The Army will continue to protect Science and Technology (S&T) investments critical to identifying, developing and demonstrating technology options that inform and enable affordable capabilities for the Soldier. S&T efforts will foster innovation, maturation and demonstration of technology-enabled capabilities, maximizing the potential of emergent game-changing landpower technologies. Key investments include Joint Multi-Role Helicopter, the foundation for the Army's Future Vertical Lift capability; combat vehicle prototyping; assured Position, Navigation and Timing and enhancing cyber operations and network protections. We continue to explore the possibilities of cyber, high-energy laser, materials, human performance and quantum science technologies for a variety of applications.

The centerpiece of the Army's Modernization Strategy continues to be the Soldier and the squad. The Army's objective is to rapidly integrate technologies and applications that empower, protect and unburden the Soldier and our formations, thus providing the Soldier with the right equipment, at the right time, to accomplish the assigned mission. The Army will support this priority by investing in technologies that provide the Soldier and squad with advanced war fighting capabilities such as enhanced weapon effects, next generation optics and night vision devices, advanced body armor and individual protective equipment, unmanned aerial systems, ground based robots and Soldier power systems.

Improvements to mission command will facilitate the decision-making of leaders and Soldiers across all tactical echelons for Unified Land Operations in support of the Joint Force and allies. The Army will develop and field a robust, integrated tactical mission command network linking command posts, and extending out to the tactical edge and across platforms. We will build enhanced mission command capabilities and platform integration by fielding software applications for the Common Operating Environment, while working to converge operations and intelligence networks. Based on the current and projected demands for ISR, the Army adjusted the Gray Eagle unmanned aerial system program's fielding schedule to make more assets available to strategic and operational commanders this year. The Army also expanded the Aerial Intelligence Brigade with an additional 18 Gray Eagles for a total of 36 aircraft, and an increase from 48 to 165 soldiers per company.

With respect to combat platforms, and those desired to enable greater protected mobility, the Army's objective is to consider the most stressing contingency operations and make its fleets more capable. In addition to the Apache AH-64E and Blackhawk UH-60M investments, which support the Army's Aviation Restructure Initiative, the Army will continue development of the Armored Multi-Purpose Vehicle to replace the obsolete M113 family of vehicles and begin to produce the Joint Light Tactical family of vehicles. The Army will also continue to make improvements to the survivability, lethality, mobility and protection of the Abrams tank, Bradley Infantry Fighting Vehicle and Paladin self-propelled howitzer fleets. While resource constraints will force the Army to delay new system development and investment in the next generation of capabilities, we will execute incremental upgrades to increase capabilities and modernize existing systems.

Few choices remain if modernization accounts continue to bear the brunt of sequestration. Most programs are already at minimum economic sustaining levels, and further reductions will rapidly increase the number of cancellations. Those programs remaining will have higher unit costs and extended acquisition schedules. Sequestration will create severe

reductions in buying power and further delays filling capability gaps, forcing the Army to tier modernization – creating a situation of “haves and have nots” in the force. Rapid regeneration to fill modernization gaps and the ability to ensure interoperable, networked formations will come at a premium in cost and time. Most complex systems in production now take 24-36 months to deliver once Congress appropriates funding, while new starts or re-starts take even longer. To address the steep reductions in modernization accounts, the Army emphasizes early affordability reviews, establishing cost caps (funding and procurement objectives), synchronizing multiple processes and divesting older equipment quickly.

Organic and Commercial Industrial Base

The Army's Industrial Base consists of Government-owned (organic) and commercial industrial capability and capacity that must be readily available to manufacture and repair items during both peacetime and national emergencies. We are concerned that we will not be able to retain an Army Industrial Base that provides unique capabilities, sustains the capacity for reversibility and meets the manufacturing and repair materiel demands of the Joint Force. In the Commercial Industrial Base, prime suppliers have increased their role as integrators, and delegated key innovation and development roles to a vast and complex network of sub-tier suppliers. Sub-tier suppliers have responded with their own complex network of suppliers, some of which are small, highly skilled and defense dependent firms – these small and specialized firms serve as the warning indicator that gauges the health of the overall industrial base. In FY14, the Army identified those commercial sector industrial capabilities vital to our national defense and sustainment of a credible and capable smaller force. We must continue to protect these capabilities.

Cyber

Network dominance and defense is an integral part of our national security, and the Army is focused on proactively providing increased capability to the Joint Force. With the evolving cyber environment, the Army has been proactively adapting to cyber threats and vulnerabilities by transforming processes, organizations and operating practices. As the Army restructures LandWarNet to support operations worldwide, it is imperative we rapidly innovate and fund network and cyber infrastructure, services, security and capabilities.

A number of institutional transformations are in place or ongoing to build and sustain the Army's future cyberspace force requirements. To be more agile and responsive, while improving unity of command and synchronization of cyberspace operations, we have consolidated Army Cyber Command (ARCYBER), 2nd Army and the Joint Force Headquarters-Cyber under one commander. The Army has established the Cyber Center of Excellence at

Fort Gordon, GA, and will serve as our focal point to drive change across the Army. The proponent lead for cyberspace operations shifted from ARCYBER to the Cyber Center of Excellence under the U.S. Army's Training and Doctrine Command (TRADOC). Additionally, we established an Army Cyber Institute at West Point to collaborate with government partners, industry and other higher education institutions to develop cyber solutions. The creation of a cyber network defender enlisted specialty and the Cyber Branch within the officer corps was an effort to help focus and manage the Army's cyber talent.

In terms of new and emerging initiatives, ARCYBER and the acquisition community are pursuing ways to bring capabilities, including big data analytics, to Army operations in order to improve our cyber defense capability. We play a vital role in cyber operations across the DoD and the Joint Force by providing Cyber Protection Teams and Cyber Support Teams. Recent DoD decisions have resulted in the pursuit of a defense-wide global implementation of network modernization, including the Joint Regional Security Stacks, to enhance the security of our networks. We continually conduct assessments to better understand cyber vulnerabilities in our combat platforms and communications systems. We must make prudent investments in our cyber infrastructure, including facilities, networks and equipment to ensure a capable force. The Army is currently reviewing cyber training range capabilities and capacities to better assess future requirements. All these efforts will generate resourcing requirements, which will have to compete against other equally urgent priorities within the Army.

Installations, Water and Energy

Since 2012, as the Army implemented several rounds of budget reductions, our installation programs have seen dramatically reduced services and sustainment. Although we have survived for two years at these reduced funding levels by deferring critical facility maintenance and cutting back on services, should the increases proposed by the President not materialize, we will seriously impair our facilities and have to permanently reduce important programs and services. Even with these increased funds, facilities maintenance is funded at only 79% in FY16, which translates to higher future repair and renovation costs.

As stated in previous testimony, we need another round of Base Realignment and Closures (BRAC). We simply have too much surplus infrastructure and will have even more as we downsize. We are already in the process of separating nearly 152,000 Soldiers, and sequestration would force us to separate another 60,000 – for a total reduction of 212,000. In addition, we have reduced over 50,000 Civilians from these same installations. Without a BRAC and the realized cost savings, the only alternative is to make additional cuts in training, manpower and modernization to make up for shortages in installation funding. These are not

cuts we can afford to make. To date, we have been able to mitigate the adverse impact by focusing reductions on Europe and eliminating facilities not associated with U.S. installations. Through analysis and evaluation, we continue to examine other ways to reduce infrastructure within our authorities around the world. We are now reducing personnel at U.S. installations and we expect excess facility capacity will be about 18% Army-wide when we reach the end strength ramp of 490,000 for the Regular Army in FY15.

To improve the resilience and efficiency of our remaining infrastructure today and in future years, the Army will continue its efforts to increase energy efficiency, expand the use of on-site renewable energy, reduce water consumption and reduce waste generation. This year, we will issue an Energy and Sustainability Strategy that focuses on building resiliency. Implementation of this strategy will facilitate continuity of operations and improve the Army's energy, water and sustainability posture. These actions will also enhance the Army's ability to mitigate and adapt to the deleterious effects of climate change.

SOLDIERS AND CIVILIANS COMMITTED TO OUR ARMY AND PROFESSION

We must never forget our Soldiers will bear the burden of our decisions with their lives and health. As Army professionals, we must do everything possible to maintain the trust of our Soldiers, Civilians and Families who selflessly sacrifice so much. Today, they trust that we properly prepare them with the right tools and resources necessary to accomplish the missions that take them into harm's way. To ensure the Army maintains the trust of the American people we serve, the Army is evaluating ways to further develop our military and civilian professionals, and ensure an uncompromising culture of accountability exists at every level of command. As the Army prepares for the environment that lies ahead, we must anticipate the unique ethical and moral challenges the future may present, and remain committed to developing Army Professionals of Competence, Commitment and Character.

The Army Ethic defines the moral principles that guide us in the conduct of our missions, performance of duty and all aspects of life. Our ethic is reflected in law, Army Values, creeds, oaths, ethos and shared beliefs embedded within Army culture. It inspires and motivates all of us to make right decisions and to take right actions at all times. The Army Ethic is the heart of our shared professional identity, our sense of who we are, our purpose in life and why and how we serve the American people. To violate the Army Ethic is to break our sacred bond of trust with each other and with those whom we serve. Army Professionals must fulfill distinctive roles as honorable servants, military experts and stewards of our profession.

Adaptive Army Leaders for a Complex World

The Army Operating Concept will require evolutionary change as we deal with the growing complexity of the operational environment, and this change begins by changing mindsets. The Army's competitive advantage, today and into the future, will always be our Soldiers and Civilians. Our top priority is to develop agile and adaptive leaders at the tactical, operational and strategic levels. Today and into the future, the Army must provide well-led and highly trained Soldiers organized into tailorable and scalable organizations that provide our Nation's leaders an array of options, both lethal and nonlethal, across the entire range of missions. The Army Leader Development Strategy calls for the development of leaders through a career-long synthesis of training, education and experiences acquired through opportunities in institutional, operational, broadening and self-development learning formats, supported by peer and developmental relationships. Leader development and optimized Soldier performance are directly linked to the Army's ability to operate in the future. We must develop multidimensional, adaptive and innovative leaders who thrive in decentralized, dynamic and interconnected environments.

Leader development is the deliberate, continuous and progressive process – built on a foundation of trust and founded in Army values – that grows Soldiers and Civilians into competent, committed professional leaders of character. As an institution transitioning from extended combat rotations, we must regain our expertise as trainers and improve the support and delivery of realistic training. Home station and centralized training must leverage both current and emergent technologies and integrate the latest capabilities, such as cyber; hybrid threats and Joint, interorganizational and multinational organizations.

Today's combat environment requires dynamic leaders and Soldiers. To ensure all Soldiers are adequately prepared, entry-level Soldier training focuses on fostering individual resiliency, battlefield skills, Army values and developing the credentials to succeed in the Army and excel afterward. The NCO development model is a deliberate, analytical and data-driven process that constantly evaluates and adjusts to ensure all leaders have the right tools to lead and mentor others in today's and tomorrow's dynamic worlds. This model is collectively known as NCO 2020, which looks at training from the operational, institutional and self-development domains to ensure a career of lifelong learning and of harnessing experience and proficiency at all levels. This includes a revamping of the NCO education system and a renewed emphasis on individual and collective task training to help mitigate the effects of a reduction in Combat Training Center rotations.

Today, the Army is expanding broadening opportunities for its NCOs, Warrant Officers and Officers with programs like Training with Industry, Strategic Broadening Seminars and the Congressional Fellowship Program. Broadening and educational experiences for senior field grade through general officers is also an area that must not be overlooked. Developing well-rounded senior leaders who are capable of effectively communicating the needs and capabilities of the profession to Civilian leaders within the larger context of national concerns is critical to the Nation.

It is imperative that our leaders and organizations are capable of thriving in Joint interorganizational and multinational teams, and that they seamlessly integrate multi-domain effects from air, sea, space, cyber or land. This places a premium on innovation—on leveraging current and emerging concepts and technologies both today and going forward. Encouraging innovation and empowering all leaders with the skills required to win in a complex world, manage complex institutional processes and influence strategic decision making within a broader operating environment is paramount to the Army's future.

More than 250,000 people working in nearly 500 unique job series – about 20% of the Total Army Force – comprise the Army Civilian corps. Given the size, complexity, impact and importance of the Civilian cohort to the Army, we established the Army Civilian Workforce Transformation (CWT). CWT is the Army's strategic campaign to transform the Army's Civilian cohort for the future and develop a more adaptable, capable and technically proficient Army Civilian who is well grounded as a leader.

Soldier 2020 and Increased Opportunities for Women

In 2012, the Army initiated a deliberate Service-wide effort—Soldier 2020—to ensure our units are filled with the best qualified Soldiers. This effort includes opening previously closed positions and occupational specialties to women, while maintaining our combat effectiveness. The Soldier 2020 initiative seeks to remove as many barriers as possible and allow talented people—regardless of gender—to serve in any position in which they are capable of performing to standard.

Over the past 27 months, we have opened six previously closed Military Occupational Specialties and over 55,000 positions across all Army components to women. This includes opening 1,562 positions in United States Army Special Operations Command, including the 160th Special Operations Aviation Regiment. The Army is validating gender-neutral physical standards and completing a gender integration study, work that will inform decisions on opening the 14 remaining Military Occupational Specialties currently closed to women. Once the study is completed, we will make a recommendation to the Secretary of Defense on opening as many

as 166,000 positions across the Active and Reserve Components to our women in uniform. As part of the Soldier 2020 initiative, the Army Ranger School assessment program will begin this spring to assess female Soldiers and Officers into Army Ranger School. The Army continues to proceed in an incremental and scientific-based approach to integrating women into previously closed units, positions and occupations while preserving unit readiness, cohesion, discipline and morale. The Army will complete all actions to meet Office of the Secretary of Defense requirements prior to January 1, 2016.

Sexual Harassment / Assault Response and Prevention (SHARP) Program

From the Secretary and Chief of Staff of the Army down to our newest Soldiers, we continue to attack the complex challenges of Sexual Assault. While we have made progress, much work remains. Sexual assault is a crime that violates the core values on which the Army functions, and sexual harassment shatters good order and discipline. Sexual harassment and sexual assault must be stamped out, and doing so remains a top priority throughout the Army. Commanders, the Chain of Command, and the Uniform Code of Military Justice provide the vital tools needed to prosecute offenders and hold all Soldiers and leaders appropriately responsible.

Across the Army, we are committed to maintaining momentum in Army SHARP and making further advances along our five lines of efforts: Prevention, Investigation, Accountability, Advocacy and Assessment. In the last year, our efforts along the Prevention Line of Effort resulted in actions such as consolidating SHARP training under TRADOC and Initial Entry Training and Professional Military Education to increase the quality and accessibility of our prevention tools. Our Investigation Line of Effort showed advances in Special Victim capabilities and Trial Counsel Assistance Programs. The Accountability Line of Effort had successes through our Special Victim Investigation and Prosecution capability and through tools such as Command Climate Surveys and Commander 360 degree assessments. Our Advocacy Line of Effort resulted in initial indicators of progress in establishing SHARP resource centers in over 12 installations. We continue to see interim progress along our Assessment Line of Effort as noted in the President's report and we continue to closely monitor the established metrics to measure compliance.

In sum, we have seen some progress as evident in the recent statistics outlined in the 2014 "Department of Defense Report to the President of the United States on Sexual Assault Prevention and Response" that indicate a decrease in unwanted sexual contact in FY14 compared to FY12. Within the Army, survey-estimated rates of unwanted sexual contact for the past year decreased significantly for active duty women (4.6%), compared to FY12 (7.1%). In addition, reporting data demonstrates more victims are coming forward to report sexual

harassment and sexual assault. In FY14, sexual assault reporting in the Army increased by 12% over the previous year. We view this as a vote of confidence and a sign of increased trust in our leaders, in our response services and in changing Army culture. The decline in prevalence of unwanted sexual contact, combined with the increase in reports received, suggests the Army's efforts to prevent sexual assault and build victim confidence in our response system are making progress. Nevertheless, we must continue to work on fostering a climate where individuals are not afraid of retaliation or stigma for reporting a crime by ensuring individuals, units, organizations and specifically commanders and leaders understand their responsibilities. Retaliation takes many forms and originates from many sources – leaders, family, friends and, most pervasively, peer to peer. Retaliation in its simplest form is bullying. It is intimidation that deters people from acting. It enables offenders, threatens survivors, pushes bystanders to shy from action, and breeds a culture of complacency. Retaliation has no place in the Army and we must stamp it out.

Sexual Assault Response Coordinators and Sexual Assault Prevention and Response Victim Advocates are now credentialed through the DoD Sexual Assault Advocate Certification Program, and the Army's SHARP Academy is expanding their knowledge, skills and abilities. Based on national experts' guidance, the Army's Sexual Assault Medical Forensic Examiner's course now surpasses Department of Justice requirements and establishes a best practice for all DoD to follow.

The chain of command is at the center of any solution to combat sexual assault and harassment, and we must ensure it remains fully engaged, involved and vigilant. Toward this end, we enhanced the Officer and Enlisted Evaluation Reporting Systems to assess how officers and NCOs are meeting their commitments – holding them accountable through mandatory comments on how those leaders are acting to foster a climate of dignity and respect and their adherence to our SHARP program. With commanders at the center of our efforts, we will continue to decrease the prevalence of sexual assault through prevention and encourage greater reporting of the crime. We expect to see reporting numbers to continue to rise. As our efforts to enforce discipline, prosecute offenders and eliminate criminal behavior mature, we expect the number of sexual assaults occurring within the Army to eventually decrease. There is no place for sexual harassment or sexual assault in our Army or our society.

The problems of sexual assault and sexual harassment will only be solved when every Soldier, Civilian and Family Member stands up and unequivocally acts to stamp it out. Together, we have an obligation to do all we can to safeguard America's sons and daughters, as well as maintain trust between Soldiers, Civilians, Families and the Nation. Army leaders, at

every level of the chain of command, are doing this through prevention, investigation, accountability, advocacy and assessments.

MAINTAINING THE PREMIER ALL VOLUNTEER ARMY

As we shape the force of the future, we must enhance force readiness, while taking care of the men and women who serve. This means, while providing Combatant Commanders with versatile and trained forces, we also have an obligation to support our Soldiers, Families and Civilians while they serve in the Army, and as they transition back to civilian life. Those who make up the Total Army – Soldiers, Families and Civilians; Regular Army, Army National Guard and Army Reserve – represent its strength. "Total Army Strong" expresses our enduring commitment to Soldiers, Families and Civilians, and to sustain a system of programs and services to mitigate the unique demands of military life, foster life skills, strengthen resilience and promote a strong and ready Army. "Total Army Strong" provides commanders flexibility to prioritize and adjust programs and services, regardless of geographic location.

We recognize that attracting and retaining highly-qualified individuals in all three components is critical to readiness. However, the stronger economy, including lower unemployment, poses challenges to recruiting and retention in FY16. Due to obesity, medical conditions and other reasons, less than one-third of otherwise-eligible Americans would even qualify for military service. Though we face recruiting challenges in FY16, we will man our formations with highly-qualified and diverse Soldiers by continuing and strengthening those recruitment and retention programs that best enhance and sustain the All-Volunteer Army.

Ready and Resilient Campaign

We must support and appropriately resource the Army's Ready and Resilient Campaign. This campaign provides holistic, evidence-based tools, training and resources to our commands and leaders who care for our Soldiers, Civilians and Family members so they can strengthen their resilience and achieve and sustain personal readiness. The Army's Ready and Resilient capabilities improve the physical, emotional and psychological resilience of the entire force, attack the foundation of acts of indiscipline and prevent negative behaviors from escalating to damaging events such as suicide or sexual assault. We must ensure the overall readiness and resilience of the Total Army Family through optimal sleep, activity and nutrition – the Performance Triad. The Performance Triad strengthens individual and unit readiness through a comprehensive approach that promotes leadership and behavior change strategies to improve personal and unit readiness and resilience, as well as physical, emotional, and cognitive dominance through optimized sleep, physical activity, and nutrition. The Performance Triad

empowers leaders to coach and mentor health readiness using technology to actuate behaviors that support lasting cultural change as a mandate of the Army profession.

Soldier for Life

Soldier for Life is not just a program; it is a change in mindset. One way we encourage this frame of mind is through senior leader and installation engagements, as well as changes in training curriculum. We want Soldiers to understand and believe from the time they come into the Army and for the rest of their lives, that they deserve our utmost care and attention throughout the Soldier lifecycle – “Once a Soldier, always a Soldier...a Soldier for Life!” As Soldiers return to civilian life, they will continue to influence young people to join the Army and, along with retired Soldiers, will connect communities across the Nation with its Army.

As we reduce the Army's end strength, we owe it to our Soldiers and their Families to facilitate their transition to civilian life. The Army supports continuum of service initiatives to help in this effort by communicating the benefits of continued service in the Reserve Components. Additionally, the “Soldier for Life” Program connects Army, governmental and community efforts to facilitate the successful reintegration of our Soldiers and Families back into communities across the Nation through networks in employment, education and health. Our pre- and post-retirement services ensure those who served become and remain leaders in their community. For example, we have developed strong relationships with government, non-government and private sector entities to include direct collaboration with the Departments of Veterans Affairs, Labor, and the Chamber of Commerce to bring employment summits to installations worldwide.

CLOSING

We face a period of critical decisions that will impact the Army's capability and capacity for the next decade. It is important that we make the right decisions now. The operational and fiscal environments are straining the Army as we attempt to balance end strength, readiness and modernization to meet current demands while building the foundations of a force that can meet future challenges. The velocity of instability continues to increase worldwide, whether of ISIL and terrorism in Iraq, Syria and Yemen; anarchy and extremism in North Africa; Russian belligerence; provocation by North Korea; or complex humanitarian assistance requirements and the unpredictable nature of disaster relief missions. But despite all of this, we continue to reduce our military capabilities, degrade readiness and erode trust with the specter of sequestration. We ask the help of Congress to eliminate sequestration and provide our Soldiers with greater predictability in these uncertain times. We must not reduce the Army below

980,000 Soldiers and leave the Army unprepared to meet Defense Strategic Guidance or respond to some unforeseen event.

Our strategic partnership with Congress is absolutely critical to the Army's success. Simply put, our Soldiers and Civilians could not do what they do each day without your support. Our Army needs Congressional support now more than ever. The decisions we make this year and next on our fiscal policy, and related end strength, readiness and modernization will directly impact the security of the United States and the world for decades to come. Today, we have the most capable and professional Army in the world. Our Soldiers have gained invaluable experience and expertise; built relationships among interagency partners, allies and each other and developed an intimate understanding of the world we live in. As we reduce the size of our Army, each Soldier leaving the ranks takes with him or her invaluable experiences and a deep understanding that has come at great cost and is impossible to replace in short order.

We look forward to working with Congress to ensure the Army is capable of fulfilling its many missions, while continuing to be good stewards of the taxpayers' money. Despite ongoing fiscal uncertainties, we are pleased to report professionalism and morale within the Army remains strong. Whether advising and assisting in Afghanistan and Iraq, supporting allies in Europe and the Republic of Korea, serving in the homeland or engaging our partners around the world, the indomitable spirit of our greatest assets, our Soldiers – our Nation's Trusted Professionals – stands ready: Ready to safeguard our Nation's liberty, deter aggression and protect our national interests at home and abroad. With your assistance, we will continue to resource the best-trained, best-equipped and best-led fighting force in the world: the U.S. Army.

Mr. FRELINGHUYSEN. General Odierno, the floor is yours.

SUMMARY STATEMENT OF GENERAL ODIERNO

General ODIERNO. Thank you, Chairman Frelinghuysen, Chairman Rogers, Ranking Member Visclosky, the rest of the members of the House Appropriations Committee, thank you for you allowing us to have a very important discussion this morning.

THREATS

Today we continue to experience a diverse and complex array of threats through a combination of transnational extremist organizations and nation-states, and we continue to witness an increase in the velocity of instability that was unforeseen just a few years ago.

In Iraq and Syria we continue to see the ruthless behavior of ISIL and the smoldering of sectarian conflict, which is threatening regional stability and has the potential to escalate international terrorism. Order within Yemen has fully collapsed, with the country now facing civil war. Anarchy, extremism, and terrorism running rampant in Libya and other parts of North and Central Africa. Transnational terrorist groups are exporting violence from new safe havens, where they intimidate populations, prepare for future attacks, and foment instability to secure their influence.

In Europe, Russian aggression and its intervention in Ukraine challenges the resolve of both the European Union and NATO. Across the Pacific, China's military modernization efforts alarm our allies and concern our regional interests, while North Korean belligerence continues, and we continue to have ever-evolving threats against our homeland.

FORCE STRUCTURE

In my opinion, this should not be the time to divest of our military capability and capacity, but that is, in fact, what we are doing, decreasing Active Component end strength by 80,000 so far and our National Guard and Reserves by a combined 18,000. As has been mentioned before, we have deactivated 13 Active-Duty brigade combat teams and we are in the process of eliminating three Active Component combat aviation brigades. We are reducing our total aviation force by 800 aircraft, with almost 700 of those coming out of our Active Component.

MODERNIZATION

We have slashed our investments in modernization by 25 percent. We have purged our much-needed infantry fighting vehicle modernization and scout helicopter development programs. And we have considerably delayed our other upgrades for many of our systems and aging platforms.

The unrelenting budget impasse has also compelled us to degrade readiness to historically low levels. Today, only 33 percent of our brigades are ready, when we believe our sustained readiness rates should be closer to 70 percent. Under our current budget, Army readiness will at best flatline over the next 3 to 4 years.

The compromises we have made to modernization and readiness, combined with reductions to our force size and capabilities, trans-

lates into increased strategic risk. We are generating just enough readiness for immediate consumption. We are not able to generate residual readiness to respond to unknown contingencies or to even reinforce ongoing operations.

This is a dangerous balancing act. We have fewer soldiers, the majority of whom are in units that are not ready, and they are manning aging equipment at a time when demand for Army forces is much higher than anticipated.

DEPLOYMENTS

Our soldiers and leaders continue to perform superbly. Just look at how busy our Army is around the world. We have units engaged in Iraq, Afghanistan, and Jordan, Kosovo, the Korean Peninsula, and across the Afghan continent. We have rotational forces in Europe, Kuwait, and the Pacific. We are conducting a wide range of missions, from humanitarian assistance, to training and advising forces in contact, to reassuring our allies with our dedicated presence. This is the reality we face as we discuss the Army posture.

In the President's fiscal year 2016 budget submission, it recognizes these challenges. But even the President's budget represents the bare minimum needed for us to carry out our missions and execute and meet the requirements of our defense strategy.

BUDGET REFORMS

And it is a tenuous house of cards. In order for the President's budget to work, all of our proposed reforms in pay and compensation must be approved. All of our force structure reforms must be supported, to include the Aviation Restructure Initiative. And we must be allowed to eliminate a half a billion per year of excess infrastructure that we currently have in the Army.

BUDGET SHORTFALL

We potentially face a \$12 billion shortfall, \$6 billion in the reforms I mentioned and \$6 billion in costs that really in the very near future must transition from OCO into the base. If BCA caps remain, we can no longer execute the Defense Strategic Guidance. Sequestration would compel us to reduce end strength even further, forcing out another 70,000 from the Active Component, 35,000 from the National Guard, and 10,000 from the Army Reserves. It would be necessary to cut another significant amount of aviation brigades. Modernization will be slashed further, home station training would go unfunded, and readiness rates would degrade even further.

Anything below the President's budget compromises our strategic flexibility. It worsens our readiness funding and further degrades already underfunded modernization programs. It impacts our ability to conduct simultaneous operations and shape regional security environments. It puts into question our capacity to deter and compel multiple adversaries. And if the unpredictable does happen, we will no longer have the depth to react.

EFFICIENCIES

We are trying our best to achieve efficiencies. We have taken advantage of our wartime reset program to reduce depot maintenance by \$3.2 billion. We are reducing our reliance on contractor logistic support, which will result in nearly \$2 billion in cost savings. We have identified and are avoiding costs in excess of \$12 billion through the Aviation Restructure Initiative. We have reorganized our brigade combat teams throughout the force, eliminating overhead and maximizing combat capacity. We have eliminated nearly 12,000 positions by reducing all two-star and above headquarters by 25 percent. And we continue to look at ways to achieve individual and collective training efficiency.

But we must also take on acquisition reform to readdress the role of the service chiefs, of life cycle management and logistics, and of expansion of the bureaucracy and how we might eliminate that.

In response to the complexity of the future global security environment, both today and in the future, we recently published the new Army, operating concept, "Win in a Complex World."

PERSONNEL INITIATIVES

We are modernizing the force and maximizing talent by opening more than 55,000 positions to women, and are assessing the potential of opening as many as 166,000 additional positions across the force.

Sexual harassment and sexual assault prevention remains our top priority. While recent reports are clear that we have made some initial progress on sexual harassment and assault prevention, we have much work to do. Our men and women deserve to be treated with dignity and respect, and should expect a work environment that is free of harassment, assault, and retribution. A culture of inclusion and of mutual and shared trust is essential.

I continue to be inspired by the unparalleled experience and professionalism of the men and women of the United States Army. They demonstrate unwavering dedication and commitment to the mission, to the Army, and to the Nation. We owe it to them to ensure that they have the right equipment, the best training, the appropriate family programs, health care, and compensation packages that are commensurate with their sacrifices.

The decisions that we make today and over the next several months will impact our soldiers and our Army and our Nation for the next 10 years. The burden of miscalculation and underinvestment will directly fall on the shoulders of the men and women of the United States Army that have so ably served this Nation. We simply cannot allow this to happen.

Thank you so much for the opportunity to testify today. I look forward to your questions.

Mr. FRELINGHUYSEN. Thank you, General.

For the members' benefit, I am going to recognize you in order of your arrival and obviously go back and forth.

LOCATION OF DEPLOYED FORCES

Before recognizing Mr. Calvert, General Odierno, can you give us the laydown specifically of where our troops are in Europe? A number of us just came back from Ukraine. There is a high interest in our posture in that area. We never thought we would be in this situation. Could you give us just a laydown? I know the Secretary mentioned the Baltics. We would like to know the numbers.

General ODIERNO. Yeah. So, Chairman, I think everybody knows we have two brigades left in Europe, an airborne brigade that is in Italy, a Stryker brigade that is operating out of Vilseck/Grafenwoehr, Germany. We also are rotating——

Mr. FRELINGHUYSEN. Just the numbers——

General ODIERNO. Okay.

Mr. FRELINGHUYSEN [continuing]. Of the men and women in the units, because in some areas you have 150. I assume that there is a captain or somebody.

General ODIERNO. So in each one of the Eastern European countries, we have a company's worth of capability there that we have been rotating through, different types of units, airborne, Stryker, and now heavy units. And there is a company, 150 people, in Lithuania, Latvia, Estonia and Poland.

Mr. FRELINGHUYSEN. And the numbers in Italy and Germany these days?

General ODIERNO. We have 20,000 soldiers in Europe total, and we are now rotating a heavy brigade of about 3,500 soldiers there that will continue to rotate that capability as we move forward.

Mr. FRELINGHUYSEN. Mr. Calvert.

REMARKS OF MR. CALVERT

Mr. CALVERT. Good morning, Secretary McHugh, General Odierno. First, thank you for being here. Thank you for your service. We understand that this current environment, you are facing numerous challenges, as we heard. We look forward to working with you to support the men and women of our Army.

John, it was 23 years ago that you and I were sworn into the U.S. Congress together as young freshmen. We have both seen a lot of change since then; some good, probably some not so good. But one thing I want to focus on is something that probably everybody here is tired of me talking about, but since 2001 we have cut the Active-Duty Force by 4 percent but we have grown the civilian workforce by 15 percent. And you mentioned in your opening testimony, General Odierno, the expansion of the bureaucracy.

CIVILIAN EMPLOYEES

Currently, the ratio of civilian employees to Active-Duty personnel is at historic levels. It has never been higher. Bringing that ratio down to the historic norm would save the Department \$82.5 billion over the next 5 years. That is DOD-wide. All these savings would be reinvested right back in the Department to alleviate the impact of the BCA.

In DOD's fiscal year 2016 budget documentation, every service made steep steps to their respective service civilian payroll in 2016. The Army, being the largest force, shed 47,048 civilians employees.

However, Defensewide number of civilians at the Pentagon rose that same year by 58,436 employees. Further, the fiscal year 2015–2016 request adds 17,000 back to the services.

Looking at DOD over the last several years, we have basically gone nowhere. This is money that could be spent on readiness, acquisition, and end strength. The services made cuts, but then the Pentagon hires them right back.

I don't understand that. I would like to get your thoughts on that.

Mr. MCHUGH. I can start, Mr. Calvert. Well, I am not in a position to speak for the Department, Department of Defense. I would kind of prefer to focus on the Army, if I may.

I think it is important for all of us to recall much of that growth was predicated upon two principles. One, we were at war and there was a question of suitable end strength. And in the Army, we had "Grow the Army" effort to try to expand that end strength because of the demands in theater. And much of the responsibilities that previously were held by people in uniform we were forced to bring on either contractors and/or civilian employees to do those efforts.

The other thing also is, through a series of GAO reports, some actions by Congress, we have been required to do a number of things that substantially increased civilian numbers. For example, there is a provision in law that inherently military activities must be insourced, they can't be contracted out. In an effort to comply with that, we found ourselves bringing more civilians onboard inside the Department of Defense to comply.

We also had a reversal, really, of an earlier time when I had the honor of serving in this Congress to downsize our procurement officers, our contracting officers. GAO found that part of the problem with contract oversight is we didn't have enough civilian, in our case, overseers and we were relying too heavily on outside weapons contractors.

So that explains in large measure the growth, but it does not in any way obviate the very important points that you made.

What we are trying to do in the Army is to draw down our civilian end strength. You seem to have a better command of the departmental numbers than I do. But we have drawn in the Army since 2011 our civilian force down by some 14 percent. We have done some analysis that at our likely end strength of 450, we would have to continue to come down to about 239,000. And if we go to sequestration, that will bring our number down to about 233,000 total civilian employees.

So we have a responsibility to balance our military reductions with our civilian reductions, and we are attempting to do that, and over time I think we will get there and, again, as you rightfully noted, hopefully be afforded the opportunity to reinvest those savings in military base programs.

Mr. CALVERT. I just want to make a point that since 2006 we have seen the most significant growth in the ratio of civilian employees versus the military. And our new Secretary, Ash Carter, made a comment the other day that they have to attack that problem. So I would hope that they would—

Mr. FRELINGHUYSEN. General Odierno, brief response and then I am going to go to Ms. McCollum.

General ODIERNO. What I would just add, I think what you are getting at, and we have asked for this, there is lots of pressure on the services to reduce end strength, civilian end strength. And we do believe the fourth estate, which is what we call the rest of the Department of Defense outside of the services, absolutely needs to be looked at in terms of their growth and look at what they need to do in order to reduce the manpower, because they have increased significantly. And we have actually asked within OSD to do that. And Secretary Carter has, in fact, pledged to take a hard look at that, and I think it is very important as we move forward.

Mr. CALVERT. Thank you.

Mr. FRELINGHUYSEN. Important issue. Thank you for raising it.

Ms. McCollum, and then Mr. Womack.

REMARKS OF MS. MCCOLLUM

Ms. MCCOLLUM. Thank you, Mr. Chair.

Thank you, gentlemen, for being here.

ARMY EXCESS FACILITIES

Mr. Secretary, can you provide this committee with a detailed list of Army facilities which we spend tax dollars to maintain that are empty or unused?

Mr. MCHUGH. I am sorry. I couldn't. I apologize.

Mr. FRELINGHUYSEN. Could you move the mike a little closer to your mouth, please?

Ms. MCCOLLUM. Mr. Secretary, can you provide this Committee with a detailed list of Army facilities which we spend tax dollars to maintain that are empty or unused?

Mr. MCHUGH. Well, we have a problem doing that to the depth that I know this Committee would like, because we have been barred by legislation in the 2015 NDAA to do the kind of analysis that is essentially part of a base closure round.

Ms. MCCOLLUM. Well, Mr. Secretary, we need to change this. Congress needs to have this information. And I ask this because I have a Rutgers article from March 11 that says, "U.S. Army spends \$500 million spent on empty buildings as troops cut."

So, folks, this is absolutely crazy for Congress to force the Army to waste \$500 million to maintain empty or unused facilities, actually preventing you from effectively using tax dollars, and for Congress to have something in place that you and I can't even have a conversation about how we go about making sure that you have the tools that you need to do your mission and have our men and women come home safely and to save the taxpayers money. And then we are forcing budget control caps on you.

So let me ask this question. Is this \$500 million figure, is that accurate?

Mr. MCHUGH. It could be more.

Ms. MCCOLLUM. It could be more.

Mr. MCHUGH. That is based on our last assessment of excess capacity that is pretty outdated. And given the fact that our numbers are coming down rather substantially, it is likely that that number has grown.

Ms. MCCOLLUM. And approximately, it could even be more than the 25 percent I just mentioned that Army facilities are surplus in excess of your mission? And you are shaking your head yes.

Mr. MCHUGH. Yes.

Ms. MCCOLLUM. Could maybe you gentlemen elaborate on why this issue today needs to be resolved as future troop numbers and civilian employees are reduced and you are forced to live within the budget control caps, as this Congress has said that it will do?

Mr. MCHUGH. Well, in the first instance, we obviously, as I mentioned in my opening comment, want to be the best stewards of taxpayer dollars that we possibly can. And in our estimation, in large measure that is wasted money. And it could go to support family programs, it could go to providing better care for folks who find themselves in need of a range of health care, et cetera, et cetera. But for whatever means, it is money that we are wasting supporting infrastructure that has no use now, let alone into a future in which we will probably become quite smaller.

So we agree with you that at least in the context of being responsible stewards and knowing what our circumstances are, that kind of analysis would be helpful in more ways than just base closure. It would be helpful to Committees like this who have a very important responsibility to make decisions on policy going forward.

Mr. VISCLOSKY. Will the gentlewoman yield for a second?

Mr. FRELINGHUYSEN. Mr. Visclosky.

Ms. MCCOLLUM. Yes.

Mr. VISCLOSKY. The question I have, are these individual buildings? This isn't necessarily a BRAC question per se.

Ms. MCCOLLUM. Mr. Visclosky, Mr. Chairman, reclaiming my time. That is my point. We can't even get a list from the Army or from any of the other branches of service about literally buildings that are abandoned. There is no one in some of these buildings. And we are just wasting so much taxpayers' dollars on this and failing to do our oversight mission by taking the tough votes possibly of closing some of these abandoned buildings.

And, Mr. Chair, the General, I think, wanted to have a brief response.

Mr. FRELINGHUYSEN. Yes. General, comment, then we will go to Mr. Womack.

General ODIERNO. Just very quickly. I mentioned in my opening statement actually half a billion dollars. So the number is about what we think it is. And, oh, by the way, these buildings tend to be the older buildings, they are inefficient in many different ways. So not only the access, they are our oldest, most inefficient buildings. Half a billion dollars could buy 5,000 soldiers a year, could provide readiness for 10 brigade combat teams. So, I mean, if we can get after this and allow us to get rid of this infrastructure, the reinvestment of these dollars could be significant.

Ms. MCCOLLUM. Thank you, Mr. Chair.

Mr. FRELINGHUYSEN. Mr. Womack, and then Mr. Ruppersberger.

REMARKS OF Mr. WOMACK

Mr. WOMACK. Thank you, Mr. Chairman.

Mr. Secretary, General Odierno, it is always great to see you. And I have an enormous amount of respect for what you gentlemen

bring to the table in terms of your leadership of our Army, and it is always a great honor to have you in front of this committee and to be in your presence. Whenever I get a chance to travel around and visit some of the installations and at the same time execute my duties on the Board of Visitors at West Point, and I see General Odierno up there quite often, it is always great to be with you.

AVIATION RESTRUCTURE INITIATIVE

General, you know probably where I am going on the Aviation Restructure Initiative, still moving despite a short pause that we gave in the last NDAA that is in effect until April of next year. And I am still concerned about ARI for a lot of reasons. In my opinion, it appears to be an operational decision, not a budget decision. And so here is what I want to do. I want to drill down on the claim that we are going to save \$12 billion.

The Army, and I am using the Army's numbers, has provided a breakdown of the cost savings, and I would like to point out that \$10.5 billion is really not cost savings, but more cost avoidance, meaning that you count as savings not having to do modernizations and updates on Kiowas and trainers that you won't have to do now because you are divesting of them.

Furthermore, you are predicting that this cost avoidance savings, most of it won't even come, in fact, I guess the cost avoidance piece of this won't even come in the current POM, the 2015–2019 POM, they come after 2020. And the savings really don't have anything to do with whether the Apaches are moved or stay in the Guard. The operational capacity would remain regardless of whether you move the Apaches to the Army like you are proposing or whether you let the Guard keep the Apaches and keep doing the mission that they have been doing for 13 years.

So here are a couple of questions for you. Am I right? Is this more operational than budget?

General ODIERNO. No. It is both. So remember, we have already taken a significant amount of reduction in our Army budget. So I would remind you that there are absolutely savings now, because part of the Aviation Restructure Initiative is the elimination of three aviation brigades out of the Active Component. And as Chairman Rogers pointed out, we have already taken a brigade out of Fort Campbell, Kentucky.

Those three brigades takes about 8,000 people out, so that is \$800 million a year, plus the training costs, which is another \$300 million or so. So you are talking \$1.1 billion per year just by taking those three complete brigades out of the Active Component. So over the POM, that is about \$5 billion to \$6 billion worth of savings right there.

If we kept the OH–58 Deltas we would have to modernize them, because they did not perform the way we need them to do and they put our pilots in danger. So that would be another couple billion dollars that we would have to spend in this POM right now.

So we have saved a significant amount of money doing ARI, but the reason we were able to eliminate those combat aviation brigades is because we have to move Apaches into the Active Component, so that the 10 brigades that are left in the Active Component are capable of meeting our combat needs. And by doing that, we

are also transitioning UH-60s from the Active into the Guard, so we increase the number of UH-60s.

It also saves us money in our training base, because by using LUHs in the training base it is going to decrease the training time of our pilots, because what used to happen is that the old aircraft, they would train and then they would have to do extra training when they went to the UH-60 or the Apache, because it wasn't dual engine, they didn't have the right cockpits where they could look below it, and they couldn't use the night vision devices.

So it saves us money in terms of training time, and that will happen immediately, because we are now transitioning to LUHs to train our force. So there are savings that are immediate.

Mr. WOMACK. The Guard's been doing this mission for quite a while. Have they done a remarkable job?

General ODIERNO. They have, as well as the three combat aviation active brigades that we are taking out. They have done a great job too.

Mr. WOMACK. Has the Guard ever failed in that mission over the last few years?

General ODIERNO. Neither has the three aviation brigades that we are taking out either. Listen, we have had cuts, and so this is budget driven. The issue is, it is because of the complexity of the training required with the Apaches and the fact that we are going from 37 shooting battalions to 20, I need them in the Active Component to meet our requirements of today, because they are going to have to constantly deploy and they are going to have to be ready at a very high readiness level.

It is not that the Guard has failed, but when they have gotten the mission, they have gotten plenty of time to do pre-mob training and post-mob training. Because of the reductions we are taking, we don't have the luxury of being able to do that anymore.

Mr. WOMACK. And I know I am out of time. I just want to say this, and if it elicits a response, then fine; if not, okay as well. And this is kind of a shot at the acquisition programs, and this predates my time in Congress. But there have been two other platforms on the reconnaissance side that have been attempted by the Army that have been scrapped. And I don't know how much money that we have spent that we have—and I hesitate to use the word wasted. We never got the platform. But I am talking about the Comanche and I am talking about the reconnaissance helicopter, the Armed Reconnaissance Helicopter, and I don't know what the name was.

But we have spent a ton of money looking for other platforms, and quite frankly, Mr. Chairman, I think that is why we are in the pickle that we are in right now, that we have made some decisions in the past that have not proven to be the most effective in terms of being good stewards, as we all plan to be, of our taxpayer dollars.

And now, after this Committee has given a significant amount of money for the upgrades on the Apaches for the National Guard, we are going to hand them right back over to the Active Component. Got a problem with it. I will continue to maintain my position on it. But I do appreciate the exchange here. And I yield back.

Mr. FRELINGHUYSEN. Thank you for your strong advocacy. And there are obviously some other platforms that have been not entirely successful, and I will be getting into some of those later.

Mr. Ruppertsberger, then Mr. Cole.

REMARKS OF MR. RUPPERSBERGER

Mr. RUPPERSBERGER. Thank you.

I agree with some of your issues, and I would like to work with you on that too.

Well, first thank both of you, Mr. Secretary and General Odierno, for your leadership. John, I think we served together on the Intelligence Committee years ago, and I hope that your experiences in Congress have helped you doing your job here, which I know it has, because you have done a lot with a lot on the table.

SEQUESTRATION

I say it over and over and everyone here talks about it, I don't think anybody on this Committee disagrees, about the issue of what sequestration can do. Now we have before us Army, Navy, Air Force, Marines, you are the final here, saying what sequestration is going to do. And I just hope the message gets out to our leadership, Republicans and Democrats, House and Senate, that we have to do something about this. We are making our country weaker.

And I would ask this question. Do you feel that this is one of the most dangerous times for the United States of America as far as risk between terrorism, between Russia/China threat, between cyber issues, all of those type of issues?

General ODIERNO. I think it is one of the most unpredictable times, which cause us to take significant risk.

CARE OF WOUNDED SOLDIERS

Mr. RUPPERSBERGER. I just want that for the record.

I am going to get into an area, I started working years ago on this with Jack Murtha, who is no longer with us, that really focused a lot on the military members coming back after being injured, Iraq, Afghanistan, trauma issues, spinal cord injuries, the loss of limbs. And there has been a lot of research with some major hospitals in the United States working with the military. I think right now you have the, it is called the DOD Combat Casualty Care Research Program within the Army Medical Research and Materiel Command, and they do all sorts of research, clinical trials.

There is another group right now that I am going to try to focus on and make a priority, and that is the National Trauma Research Center. They study trauma care. And the purpose of this is to get all of the military, whether it is Army, Navy, Air Force, Marines, coming together with some of the best trauma centers we have in the United States coming together. And you will leverage the military and civilian partnerships, merging the hospitals and doctors with that.

Are you aware of that National Trauma Research Center, and if not, would you be in support of it?

General ODIERNO. No, I am. And I think it is very important for us.

Mr. RUPPERSBERGER. Okay.

General ODIERNO. Especially as we go forward.

Mr. RUPPERSBERGER. That is great.

Now, the other question I want to get, if I can time—

Mr. FRELINGHUYSEN. Keep moving.

Mr. RUPPERSBERGER. Keep moving.

Mr. FRELINGHUYSEN. You have time.

CUTS TO INSTALLATIONS

Mr. RUPPERSBERGER. Okay. I have two Army bases in my district, Fort Meade and also Aberdeen. And you have Cyber Command, NSA. But also you have Aberdeen, which does all the testing for the Army but also performs a lot in the chemical/biological area and other topics like that. Of course, they are on the list because of sequestration to have cuts in personnel cuts.

Are you aware of those two installations, and what is your focus as far as the future with those installations, and where are we right now as far as cuts?

Mr. MCHUGH. We are very well aware. I from having long discussions during our previous time together and having visited Fort Meade and Aberdeen, and they are important to our future.

As you noted, we are currently going through the public hearing process. We are nearing the end of that. It should be completed by the end of this month, early April. And then we have to do the analysis that is required to decide where and to what extent the cuts are going to be distributed throughout all of the Army, as I mentioned.

And back to Ms. McCollum's comments, this is another, I think, least understood aspect of no BRAC. Without a base closure so that we can at least focus a major portion of our troop cuts and our other actions, we are forced to distribute these cuts all across the entire Army inventory, at least in the United States. So we recognize the pain. The show of support through virtually all of the public hearings has been substantial. And as I said, we will probably be making announcements this summer.

Mr. RUPPERSBERGER. And these two installations are your priorities and there is a future there, it is a matter of funding.

General ODIERNO. Fort Meade obviously with CYBERCOM is increasing, actually. Aberdeen obviously is important to us. They do a lot of—you mentioned some of it. They also do a lot of our mission command, command and control work there as well with CECOM located there.

Mr. RUPPERSBERGER. Right.

General ODIERNO. So they are key installations.

Mr. RUPPERSBERGER. What I tell our Army alliances and the advocates for both of those bases is that there is a sequestration budget, that is Congress' fault, we have got to deal with it, but the budgets you are putting out are budgets that you have to put out on every installation in the country in order to deal with the law the way it is now.

Thank you.

Mr. FRELINGHUYSEN. Thank you, Mr. Ruppertsberger.

Mr. Cole, and then Ranking Member Ms. Lowey.

REMARKS OF MR. COLE

Mr. COLE. Thank you very much, Mr. Chairman.

Thank both of you for being here and for your exceptional service to our country.

Mr. Secretary, I am going to make a point and then I have a couple of specific questions. You probably know this place better than any Secretary of the Army in modern history, and had you chosen a different route you would be in your last term probably as chairman of the House Armed Services Committee right now. So we are glad you are where you are at, but we would have liked you in either job. Kind of feel like we have a friend on the inside over there.

Mr. FRELINGHUYSEN. Are you nodding your head in agreement or what here?

Mr. MCHUGH. I have no doubt a lot of people are glad I am not here.

SEQUESTRATION

Mr. COLE. I appreciate very much the points that both of you made about sequester. You have been relentless, and appropriately so, in your effort to educate the Congress and the wider public to what the risks are, and I think you have performed a real public service in doing that.

And while I never believe a deal is done until it is done, we have a long way to go here, I would just offer this on a little bit more encouraging side. I look back a couple years and I see the Ryan-Murray deal, and that was a very important deal with respect to the entire budget, but certainly with respect to the military. And I look back at the CR/Omnibus last year, and that was a very bipartisan deal and it gave you a little bit of budget stability and certainty in this fiscal year.

I look at the budget yesterday and I compare it to the President's budget, I don't think either one of them are works of art, but amazingly they have about the same amount of money computed in different ways in them, which I take to be an encouraging sign that we are not that far apart in terms of where we think we need to be in the military.

And finally, I look at the totally unrelated item that we will deal with today in a bipartisan fashion on SGR, probably a big vote, lots of Democrats, lots of Republicans, getting rid of a problem that has been around here for almost 2 decades. That is a big deal, and it suggests to me that maybe for the first time in a while there are little cracks of light out there that suggest we might unthaw.

But I want you to keep doing what you are doing, because I think the stakes of making this change, getting out of sequester where the military's concerned, are extraordinarily important. And I see signs we are coming together, but it will probably be late in the fiscal year, or late in the calendar year more probably. The way this place works, deadlines tend to be alarm clocks around here. And I see some encouraging things in the Senate. So I think we may be moving in the right direction.

PALADIN INTEGRATED MANAGEMENT (PIM)

A specific, and it is parochial, but I think it is an important question servicewide, this is to you, General Odierno, I would very much like an update on where you think we are in the PIM modernization program, are we on schedule? Give me a report, if you would.

General ODIERNO. Yes, we are, and it is going very well. We have just done a prototype, which is very important, that is the next step. We are in the process now of competing to go to full rate production. It is a key program for us in the future. Our ability to provide fire support is going to be even more important. And the PIM provides us potentially more alternatives of how we use our artillery pieces in the future, and that is going to be key with the vast variety of threats that we are going to face.

And so I think for us it is absolutely essential. It is moving forward, it is on time, so far going very, very well, and we are very pleased with the program.

Mr. COLE. I just want to add, Mr. Chairman, because we do have some acquisition concerns, this is one that has been really well done by the Army and by the private sector, and we appreciate it very much.

PATRIOT AIR DEFENSE SYSTEM

One other parochial question. I would like, if you would, give us a kind of overview on where we are using Patriot, the PAC-3s right now. We have got obviously a Patriot training facility at Fort Sill now as well. But do you have the numbers that you need? I know we are using that asset quite a bit. We have got them deployed around the globe.

General ODIERNO. Our Patriot force structure is definitely high demand, low density. And, frankly, we are at a little over a one-to-one ratio. So we are deploying them quite extensively. The requirement for those to protect not only our forces, but some of our allies, the requirement continues to go up. And with the proliferation of ballistic missile technology, frankly, it is going to be a mission that we will continue to grow.

What we have to be able to do is we are working to make our systems more efficient and effective as we move forward. We have to continue to improve the missile, we have to continue to improve the command and control capacity of our Patriot system, and we are doing that and investing in that.

But it is one of our concerns that the Secretary and I have, is in fact that we are deploying these soldiers at a rate that is not sustainable. In fact, the CNO and myself have sent a memorandum to the Secretary of Defense talking about that we have to really take a hard look at our integrated air and missile defense programs and relook at and how we better manage it for the future and to modernize it, because it is going to continue to be an asset that is necessary.

Mr. COLE. Thank you.

And, Mr. Secretary, come up here some time for a cigar. I bet I would get Mr. Israel and I have to have bipartisan——

Mr. FRELINGHUYSEN. Let's make sure——

Mr. ISRAEL. Cigar summit. Let's do it.

Mr. FRELINGHUYSEN. Let's do it outside the building. Thank you very much.

Okay. Mrs. Lowey, and then Chairman Rogers.

REMARKS OF MRS. LOWEY

Mrs. LOWEY. See, there are differing views, my friend. I would rather have a Ben & Jerry's summit or something like that. You can keep your cigar. But any event—

Mr. FRELINGHUYSEN. We are on the public record here, you know that.

Mrs. LOWEY. Well, it really is a pleasure for me to welcome you, Mr. Secretary and General Odierno. We are so lucky to have people of your capability and stature and commitment, and I thank you for your service to our country and I thank you for being here today.

SEQUESTRATION AND READINESS

I just want to say a couple of words about the sequester. And I know there are all kinds of ways we are dealing it, with OCO, et cetera. But the fiscal year 2016 Army budget request states that it provides the resources to support the defense strategy of protecting the homeland, building security globally, and projecting power and winning decisively, as well as the most urgent combatant commander requirements, and it begins the recovery of readiness and modernization.

However, the fiscal year 2016 request assumes that sequester is no longer in effect, even though it is still unfortunately the law of the land. And we can interpret that many different ways.

I want to make it very clear so I understand. If sequester continues into fiscal year 2016 and beyond, will we be able to meet the National Defense Strategy?

General ODIERNO. Ma'am, no, we will not. We have stated this very clearly. We will no longer be able to meet the Defense Strategic Guidance as we have defined it.

Mrs. LOWEY. And what impact would the BCA levels of funding have on readiness specifically and our ability to respond to the multiple combatant command requirements around the globe?

General ODIERNO. So right now we are at a low, we are at about a 33 percent readiness rate. If sequestration comes in we will get even smaller in terms of our readiness. We have about a 4-year window until we get end strength down to the level necessary that would actually increase our lack of readiness. And then in 2019 or 2020, when we got to the 420,000, then I would be concerned about maybe do we have the appropriate capacity to meet the needs around the world of multiple simultaneous requirements that we have today.

Mr. MCHUGH. Could I just add, Mrs. Lowey, and not all the members had returned from voting when the Chief made his opening statement, that just to put that 33 percent readiness right now in some context, our normal objective for readiness for all our combat forces is 70 percent. So you can see we have actually made some progress thanks to the help and relief the BBA provided in

2014 and 2015, but as you discussed, with the return of sequestration, those gains and probably even more loss would occur.

Mrs. LOWEY. Well, and I assume you have had these conversations with members on both sides of the aisle, because there always has been bipartisan support for the important work you are doing in protecting our homeland. So I find it extraordinary, with the increasing threats around the world, that there should even be a discussion about keeping sequestration in place.

And I know that there are other discussions we are having, such as OCO (Overseas Contingency Operations), but it would seem to me that your needs are clear, the threats are more dangerous than ever before, and that we have an absolute responsibility to respond after in-depth discussions.

And I hope, Mr. Chairman, we can have other discussions after this hearing and make it clear to our colleagues how important this is.

And I just wanted to thank you both for your service.

Thank you.

Mr. MCHUGH. Thank you.

Mr. FRELINGHUYSEN. Thank you, Mrs. Lowey.

Chairman Rogers.

REMARKS OF MR. ROGERS

Mr. ROGERS. As I mentioned earlier, the Army announced in November that they would be closing down the 159th Combat Aviation Brigade this year. That announcement came absolutely suddenly for the Fort Campbell community, and just after that brigade had returned from deployment in Afghanistan. Thanks, but no thanks.

159TH COMBAT AVIATION BRIGADE

Now, this is a topnotch group of soldiers. They are well trained, they are critical to the operations of the 101st Airborne Division. Now the 101st CAB will have to pick up the slack in terms of training and operational requirements for the 101st Airborne. That will lead to a loss of 3,000 personnel at Fort Campbell this year, an absolutely critical installation with a record to be absolutely proud of. Soldiers are supporting our missions in Afghanistan and in West Africa against Ebola.

Explain to me the wisdom of eliminating this combat aviation brigade at Fort Campbell, and walk me through the thought process that led to this decision, particularly in light of the current threat environment and operational requirements.

General ODIERNO. Thank you, Chairman.

First, as I mentioned earlier, this was driven by previous budget cuts that the Army had received. And in order for us to sustain a modernized aviation fleet, we had to go into this Aviation Restructure Initiative. And part of that, we had to reduce the total numbers of our aviation capability, and that is eliminating three brigades out of the Active Component.

The decision to cut that specific brigade was based on we wanted one aviation brigade aligned with each one of our active divisions,

and that is ten. And so, unfortunately, we had to eliminate one at Fort Campbell, because there were two aviation brigades there.

The unfortunate part about this is this will be the first time that we don't have inherent capability at Fort Campbell that allows us to do brigade-level air assault operations, which is a mission that we believe is critical. So we will garner resources from other places to do this.

But that decision was not taken lightly, because, as you mentioned, the performance of the aviation brigade. And that goes for all of our aviation assets, whether it is Guard, Reserve, or Active. Their performance has been excellent. But because of the reduced budget we have, we had to make very difficult decisions, and we have to sustain our aviation fleet at the highest readiness levels, because there is a great need for them on many deployable missions, as you mentioned.

Mr. ROGERS. Well, this is the 101st, and this is the absolute heart of the 101st, and it seems to me that that is the one place that I would want to keep capability at its max, is the 101st Airborne. So mark me down as undecided.

Mr. FRELINGHUYSEN. Thank you, Mr. Chairman.

Mr. Israel, and then Mr. Diaz-Balart.

REMARKS OF MR. ISRAEL

Mr. ISRAEL. Thank you, Mr. Chairman.

Mr. Secretary, it is good to be reunited with you. We miss you in New York delegation meetings.

And, General, it is good to be with you. You were kind enough to give me an aerial tour of Balad when we were there together, and we worked together on professional military education when I was on the HASC. And it is great to be with you.

Just a quick congratulations and then a question. I do want you to know that I appreciate your efforts to integrate women into all positions in the Army. In fact, one of my former Army fellows is currently in the pre-Ranger course. I value that program. I value the opportunities that you provide. So I want to congratulate you for that.

FORT DRUM

Mr. Secretary, I want to talk to you about something you have a deep proficiency on. That is Fort Drum. You used to represent Fort Drum. You remember those days.

Mr. MCHUGH. I do, yes. Fondly.

Mr. ISRAEL. As I understand it, as the Army prepares for a possible reduction in troop strength of 475,000 or less, Fort Drum has become one of the bases that may lose some units. On March 19 Congresswoman Elise Stefanik sent a letter to Secretary of Defense Carter signed by, I believe, every member of the New York delegation and our two Senators expressing some concern about potential cuts at Fort Drum. And I was wondering whether you could just comment on where we are with that. Are the concerns well founded? And what is the status?

Mr. MCHUGH. I would be happy to, Mr. Israel.

The concerns are well founded, because the concerns are based upon some inescapable realities, particularly the budget numbers we are looking at. And whether it is Fort Drum or any other major Army installation, this is not the first round of cuts. We had already made fairly substantial reductions at Fort Drum and other multibrigade bases. You heard the chairman speak about losses at the 101st at Fort Campbell from a previous round of downsizing and such.

And as I told Congresswoman Stefanick during the Chief's and my appearance before the House Armed Services Committee, we find ourselves again having to go to some 34 post camps and stations where similar analyses are being done in contemplation of our drawdown to 450,000. That is our target for the moment. If sequestration returns, then the analysis that we are doing to 450,000 would have to obviously be reopened and accordingly bring us down to 420,000.

I mentioned earlier that this in part, and I don't want to ascribe it all to this, but in part is deriving out of the lack of our ability to do a base closure round, as mentioned by Ms. McCollum, and more appropriately and perhaps smartly focus our cuts where they are actually best situated.

But absent that authority and given the budgets that we are looking at just to 450,000, and that is based on the President's budget, these cuts, I am afraid, as I mentioned in my opening comments, are going to hit every post, every camp, every station, and every program.

Mr. ISRAEL. Well, I appreciate your candor. And I just want to state, I do not represent Fort Drum. As you know, Mr. Secretary, I am as far away from Fort Drum as you can be and still be in the same state of New York.

Mr. MCHUGH. Just about.

Mr. ISRAEL. But I think we all recognize, on both sides of the aisle and throughout the Army, the value of Fort Drum, the value of the men and women there, and I hope that we can come to a good resolution on this.

Thank you, Mr. Secretary. Thank you.

Mr. FRELINGHUYSEN. Thank you, Mr. Israel.

Mr. Diaz-Balart.

REMARKS OF MR. DIAZ-BALART

Mr. DIAZ-BALART. Thank you, Mr. Chairman.

Mr. Secretary, General. A couple points and then a question. And by the way, in an effort of great bipartisanship, I just want you to know that I would attend both the cigar and the ice cream summit. Just saying.

Mr. FRELINGHUYSEN. You are a full-opportunity Member of Congress.

Mr. DIAZ-BALART. Absolutely, sir. I am here to serve.

Actually, first I want to associate myself with the comments of Mr. Womack. I too, as I am learning more, I get more and more concerned about the issue that he brought up. I am not going to rehash it, but I just think that is an issue that we have to spend a little bit more time on.

And to both gentlemen, look, I agree with you on the sequester issue, and it is the law, unfortunately. And I am hoping, because it requires House, Senate, and President, to have in essence a deal, and I am hoping that quietly the President and the Speaker and the majority leader and others would be talking. I am hoping that will happen. But that is above our pay grade.

ENERGY

Let me talk a little bit about energy. I don't know in the Army, I know in other parts that, for example, fuel costs are a huge deal, and I also know that in some areas and in some other branches that we are spending bucket loads of money, of additional money, for example, on green fuels.

How much are we spending for just energy, lights and fuel for the Army? And how much are we spending, if any, on green fuels? I mean, it has got to be substantial how much we spend just on energy.

Mr. MCHUGH. I can speak in generic terms, and we can get you whatever number of detail you would like as a followup.

[CLERK'S NOTE.—The Army is prepared to brief the Members and/or Committee staff on this issue.]

Mr. MCHUGH. But the Army is the largest consumer of energy in the Federal Government. If you think about our platforms, think about our size, where we are asked to go and things we are asked to do, I guess that is not surprising. But it is a budget line that is dispersed throughout many different programs, so it is very, very important to us.

And to your point about costs, since 2003 in the Army we have cut our energy consumption by about 17 percent through a variety of measures. Yet our costs, with that 17 percent cut, have gone up about 45 percent, which reflects the increase of energy just writ large.

So we are doing a number of things, some because to us it makes good sense to be good neighbors, to be environmentally responsible. But we are trying to do it in ways that makes us more energy independent, off the grid, if you will, that leads to better security in case of some sort of homeland disaster or challenge. But also to save money. We have doubled our consumption of renewable energies for the second year in a row.

I also should note that we have about 380 renewable energy programs throughout the Army, and the savings we derive from those is about \$13 of private sector investment for every dollar of Army money we spent. And there is a federal mandate that at the year 2020 we have a 30 percent reduction in our petroleum usage in our nontactical vehicle fleet. We have already reached that 2020 goal and we have cut our NTV petroleum usage by about 37 percent.

Mr. DIAZ-BALART. If I may, Mr. Secretary.

Mr. MCHUGH. Sure. Yeah.

Mr. DIAZ-BALART. We are now the largest producer of natural gas and we are a huge producer of petroleum. And so the question is, is that a policy that we should look at? Because, yeah, if we were buying it from other sources, it makes sense to reduce your dependence on whatever it is, but if you are the number one pro-

ducer or could be the number one producer, it seems that we should be using more of our domestic energy.

Look, I know it is beautiful and it is great, we all want to protect the environment, absolutely, but we are at crunch time here. And so I would like to see, and I don't want to put you on the spot, but I would like to see how much we are spending, real dollars, on renewables, how much we are spending, real dollars, on nonpetroleum-based costs. Because it would seem to me that if there is anyone who is going to benefit from more domestic production, it would be the Army, which by the way, when it is the Army, it is the country.

But anyway, I would like to again look at, have some of those details to figure out how much we are spending. And I understand there may be a federal mandate, but is it wise to be reducing what we are actually producing? The usage of what we are actually producing, it seems that it might be kind of, frankly, counterintuitive.

Mr. MCHUGH. Well, absolutely we can provide the best numbers that we have available, and we will do that for you. I should note that the most important consideration we have right now is cost.

Mr. DIAZ-BALART. Yeah. Absolutely.

Mr. MCHUGH. And we look at that, and that overrides just about everything. But we double that and consider it also with, as I said, security, off-the-grid energy independence. So we will get those numbers to you and be happy to have any followup discussion you might desire after that.

[CLERK'S NOTE.—The Army is prepared to brief the Members and/or Committee staff on this issue.]

Mr. DIAZ-BALART. Thank you, sir. And it is always good to see you.

Mr. FRELINGHUYSEN. Thank you, Mr. Diaz-Balart.

Mr. Ryan, and then Judge Carter.

REMARKS OF MR. RYAN

Mr. RYAN. Just to follow up, you said for every dollar you spend on the renewables, you have saved?

Mr. MCHUGH. On the renewable projects, we have saved \$13.

Mr. RYAN. Saved 13 bucks.

Mr. MCHUGH. Let me put it a different way. The ratio of Army versus investor money is \$1 for the Army versus \$13 of investment for the private investor.

Mr. RYAN. Nice.

READINESS

First, thank you. These hearings are always very interesting and sometimes make me more anxious when I leave than when I come in. I think I am not alone in that.

So a couple of questions, one on the readiness piece, just to reiterate. Due to the fiscal year 2014 and 2015 funding levels, we obviously have been harmed with the readiness, but I want to make this point, because I think we have got to drive it home to the American people, because, quite frankly, I don't think it has penetrated the American psyche of how far along we are in this.

So the Army estimates that due to lost training opportunities dating back to fiscal year 2013 it will take the better part of a decade to return units to acceptable readiness levels, and that is if we have the President's request met. Is that—

General ODIERNO. That is correct.

Mr. RYAN. That is correct. So we are talking about a decade almost of being able just to keep up to speed when the threats are becoming more and more, and I think that is another thing. You know, the old line threats don't go offline. They are still there. We have hearings about missile defense and now we have all the different hot spots around the country that you gentlemen mentioned in Yemen now, with what is happening there, the Ukraine, Ebola. I mean, these things go on and on and on. They stay online, and then we continue to have the counterterrorism investments that we need to make and all the rest.

ASIA PACIFIC REBALANCE

So to that point, we are in the third year of Asia-Pacific rebalance. We know that the Army is a big player in all this. So can you, General, provide us with an idea, what is the current picture, where does the Army stand in this rebalance, the rebasing actions, reassignments of units, missions, as well as increases or decreases in personnel in the Pacific Command area of responsibility? And then also the newer countries that we may be developing partnerships with along those lines.

General ODIERNO. So thank you, Congressman. So we have about 80,000, a little over 80,000 soldiers assigned to the Pacific Command. It is our largest operational command with assigned personnel. We have so far not degraded their capabilities.

The one thing we are doing this year is we are starting to rotate a brigade into Korea. Instead of having one permanently stationed, we will rotate a brigade from the United States there, which we think actually will increase the readiness and capability of the brigade as they rotate in, as well as aviation assets. So that is one change.

We have been able so far to do an operation called Pacific Pathways that has allowed us to reach out and build relationships with some really important partners. The last one we did was with Malaysia, Indonesia, and Japan. The next one we are looking at doing with some other nations within the region next year.

But if we do not get the funding, that will be one of the things that we are not allowed to do. As we reduce readiness, we will not be able to do these very important engagement exercises that is necessary, because we will have to focus almost all of our Pacific dollars on the Korean Peninsula because of the importance and near-term potential threat to our soldiers.

So that means that all the rest of the activities we have going in the Pacific region will have to reduce the activities, which I think is very unfortunate because of the importance of this as we continue to work and deal with a rising China and the rest of the activities we do to support the PACOM commanders directly associated with that.

In addition to that, we will probably have to reduce some of our capacity in the Pacific region as we go to full sequestration, and so

that will be something we will have to do as well. So we will have less activity, we will reduce part of our capability that is there. And so for me, that will have an impact on our overall rebalance.

Mr. RYAN. Any new bases being established?

General ODIERNO. So one of the things that we are looking at is probably no new bases, but we are looking at prepositioning equipment. So, for example, we are looking at prepositioning humanitarian assistance sets because of the amount of humanitarian relief that we do almost every year. And the important part of that is that type of effort allows us to build new relationships.

It is interesting, Vietnam is reaching out to us actually and is potentially interested in maybe having some humanitarian equipment put there.

So these are all things that we want to continue to develop over time, which will help us to build influence and gain access throughout the region, but will be limited if we don't have the dollars to do it.

Mr. RYAN. Can you just give us a general sketch of where the 80,000 are?

Mr. FRELINGHUYSEN. Very quickly, please.

General ODIERNO. So the 80,000 are in Korea, Japan, Hawaii, and then also we have some forces that are in Alaska and Fort Lewis, Washington, that are assigned to the Pacific region. As we move forward with this we will look at where we might be basing soldiers. We also have a small footprint on Guam as well.

Mr. RYAN. Great. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you, Mr. Ryan.

Judge Carter, and then I am going to go to Mr. Crenshaw, who has been sort of grayling here, you have been here so long.

Mr. CARTER. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. I apologize for not getting to you.

Judge Carter.

REMARKS OF MR. CARTER

Mr. CARTER. Thank you, Mr. Chairman.

And both of you, welcome. I am glad to see you. One of my blessings in life is I consider both of you friends.

READINESS

General Odierno, you addressed a question Mrs. Lowey asked about the national security strategy and that we would not be able to implement that. There is a further factor, and with the mission in Korea I am reminded of it. The last time the world fell apart in Korea we had an event that all the Army people tell me about all the time, Task Force Smith, where the only trained, and they were only partially trained, soldiers, even though there were a couple of divisions in the region, isn't that right, were just about 500-and-some-odd soldiers over in Japan that were partially trained. And they called that Task Force Smith and they put them in the line, and basically that was about as close to the Alamo as it got on the Korea Peninsula as far as what those guys had to put up with. And that is one of the things the Army has always said, we are not going to ever let happen again.

And as we discussed the drawdown, I think it is important that you give us a picture of the rebuilding task that you would have should that emergency or others like it occur. And let's just use, for example, if we had to take our Army, if it fell below 450,000 and we had to add 50,000 trained and ready-to-fight soldiers, what kind of a task would that be and what kind of a time schedule would that be?

General ODIERNO. We experienced in the 2000s as we added brigades to the Army, it took us 30 months to add one brigade combat team, and that has to do with the cycle of how long it would take to recruit, how long it would take to go through basic training, how long it would take them to go through collective training. And that was when we were pushing it very hard, it took us 30 months. So it is a significant amount of timeframe.

That is why the readiness of both our Active and Reserve Component becomes critical, because we will have to use every bit of those assets as soon as possible, and that is the concern as we look at our readiness levels.

Mr. CARTER. And basically the Army has proven as a fact, the more training, the more survivability, the less training, the less survivability.

General ODIERNO. That is correct. And it is about doing it consistently over time every year, training, training, training. That builds more and more capability.

Mr. CARTER. So it is easy sometimes for us to see the picture of numbers. It sometimes is hard for us to see the picture of time it takes to make an effective fighting soldier.

General ODIERNO. If I could just take a second, Chairman.

Mr. FRELINGHUYSEN. Go right ahead.

TASK FORCE SMITH

General ODIERNO. Because this idea of Task Force Smith. I have gone back and read about Task Force Smith lately, and what really—I get chills just talking about it—it is so indicative of what we are doing today, it scares me.

Thirty percent of Task Force Smith had combat veterans from World War II. All of the leadership. In fact, the battalion commander was a war hero in World War II, a Silver Star winner. And what happened was, is they didn't have the money to train the 70 percent new soldiers that they had. So when they deployed, he did everything right tactically and operationally, he put them all in the right positions, but they didn't know how to fire weapons, they didn't know how to maneuver, they didn't know how to synchronize, and so they were very quickly overrun.

And that is what we face. If we don't get the dollars, we are going to be facing something very similar to that. We are not there yet, we are not there yet, but if we continue along this path, we could be facing that 2, 3 years down the road, and I am deathly worried about that.

Mr. CARTER. Well, so am I. And having just come back from Ukraine and seeing what the future holds for potentially untrained troops facing against trained troops in that region, not ours, but other people's, disaster looks you right in the eye in that situation.

Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you, Judge. And required reading is "The Coldest Winter" by David Halberstam. If you want a wakeup call with what the judge and the general are talking about, it is a remarkable book.

Mr. Crenshaw.

Mr. CRENSHAW. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. And then Ms. Kaptur.

REMARKS OF MR. CRENSHAW

Mr. CRENSHAW. Thank you all for being here today. And I want to thank the Army for its leadership, including funds in the Future Year Defense Plan for the upgrade for the new tank, I think the ECP. I think you all know we have had some spirited discussions over the last several years about Abrams tank production, and I know it was your view initially that you weren't going to need any tanks for a while, so maybe the most cost-effective course of action would be to close down the tank production line and then open it up if and when more tanks were needed.

TANK PRODUCTION LINE

And this subcommittee thought it might be a better use of taxpayers' dollars to keep the tank lines open, spend about half as much as it might have cost to close it and open it up. I think that was estimated somewhere between \$600 million and \$1 billion. So we put some money to have a minimum production, keep the tank line open.

I think the next year foreign military sales were coming online, and there was a question would that be enough to keep the lines open, and we put a little more money to make sure that happened, and that kept that one tank production facility in our country from being shut down. And I want to kind of publicly thank the chairman for his leadership and thank you all for working with us to make sure that happened.

And do you care to comment about the ECP, about that program as you ramp that up?

General ODIERNO. Well, now, you know, what we said all along in the discussion earlier was about new tanks, but it is now going to be time for us, we have got to start now putting new changes to our current tank, the M-1A2 SEP, and so we will begin to do that. We are accelerating that now to maybe 2016, 2017 timeframe, and we will begin to do that inside of the Lima tank facility. And it is going to be critical. We knew all along we were going to have to do that at some time, and now that time is coming very quickly.

Mr. CRENSHAW. Just a quick question—

Mr. MCHUGH. Could I—I am sorry, Mr. Crenshaw. Just so I can add, and the Chief described our posture on new tanks, but we tried to respond to the challenges at Lima because of the problems that we were concerned with, with respect to skilled workers. We accelerated that ECP program. It was originally going to be 2019, and we moved it to 2017.

And the \$120 million which Congress did provide will in part, I think it can be fairly said, help us reduce the risk as we transition from the A2 program to the first ECP 1. So that was money

through six pilot tanks that we utilized there, well spent. And as I said, I think it will help a smoother transition to our modernization program.

Mr. CRENSHAW. Yeah, I think we are in a good place now. Appreciate that.

ARMY TRAINING DEVICES

I want to ask you quickly about Army training devices, simulation. We talked a lot about procurement. And it is always better to train live, but that can be expensive, and more and more people, the services are looking at simulation, renting these devices. You don't have to develop them, you don't have to maintain them. You can kind of let the private sector take the risk. And we put some money, I think, in 2014, or at least encouraged you to look at the possibility of using some simulation in terms of training, then moving into live training.

Can you give us your view? Have you done that? Has it worked out?

General ODIERNO. So, yes, we are doing that. Actually, we need more money. I would like to have more money to do it. It is absolutely essential for us. And what it does, it allows us to link installation to installation. So we can have a unit training in a simulator for a tank battalion or a Bradley battalion or company, and we can link them to an exercise that is going on at the National Training Center in Europe, and so it makes it more realistic. And that kind of thing is absolutely critical for us, as we want to build interoperability with our allies, but also it allows us to link with the National Guard and Reserve as well.

We are making progress, but this is an area I worry about because we have not been able to invest in it like we would have liked, and so what it does, then, not able to invest in this will cost us more money down the road to train, where if we could invest in it, it would lessen the amount of money we have to spend on training 2, 3, 4 years from now, and it is unfortunate.

But we have used that money. We think it is critical to our future to have that kind of training, it is absolutely essential for us, and it does save money as we go forward.

Mr. CRENSHAW. Any obstacles that you have run into, anything we can help you with?

General ODIERNO. I think the main thing is just having enough dollars in order to do it. I think we have a good program in place, we know where we want to invest. It is a matter of having the amount of dollars to invest in it.

Mr. CRENSHAW. Thank you.

Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you, Mr. Crenshaw.

Ms. Kaptur, and then Mr. Graves.

REMARKS OF MS. KAPTUR

Ms. KAPTUR. Thank you, Mr. Chairman.

Secretary McHugh and General Odierno, thank you so very much for your service to our country. And, General Odierno, I am informed this may be your last formal appearance before our sub-

committee, and if that is so, thank you so very much for your service to our country. You won't remember, but I first met you when you were in theater in Iraq at the very beginning of that campaign.

General ODIERNO. I do.

Ms. KAPTUR. And what a difficult journey this has all been for the world and certainly for our soldiers.

IRAQ

I wanted to ask you very quickly, on the issue of Iraq, today, whether you look at Tikrit and what is happening there or throughout Iraq, what percent do you think of the Iraq Army today is comprised of Iraqis who are of Shia or Sunni? If you could just estimate the percentage in the military, what would you guess it is today?

General ODIERNO. I think in the military it probably represents somewhere along the line of the population. It is probably about 60 to 70 percent Shia and about 20 to 25 percent Sunni and then about 5 to 10 percent Kurd.

Ms. KAPTUR. I thank you very much for that. I think for all of us here, when we think about the future of that region, the political reality of Iraq has created a very unbalanced situation. And I don't know where it is all headed, but I have to say I am quite concerned.

General ODIERNO. If I could just add, ma'am, I apologize, but the real concern is these units, these Shia militias that are operating, frankly, independently of the Iraqi security forces, that aren't officially under the Iraqi security forces. We are not sure who they are reporting to, who is giving them—well, I think we know.

Mr. FRELINGHUYSEN. We have a pretty good idea that they are under Suleimani and the Quds Force.

General ODIERNO. Yeah. So that is concerning. So that is even in addition to what I just told you.

Ms. KAPTUR. Were you surprised to see General Suleimani posing for pictures in Iraq?

General ODIERNO. I am very surprised. It is very disappointing. He has the blood of American soldiers on his hands. And it is very concerning to me, as well as some of the other people that are involved. Mohandis, who has been charged with the bombing of the U.S. Embassy in Kuwait, is also running around there, and it is very concerning to me as I watch this.

Ms. KAPTUR. The politics of this has sort of preceded the security matters with which you were charged and are charged. It is very troubling to me, the mismatch between the politics of what is going on and what we are asking our military to do.

NATIONAL GUARD AND RESERVES

I wanted to pivot to the Guard and Reserve very quickly. I am very pleased to see that as Army restructures and Army Air restructures that there has been attention given, pretty significant attention, given to the role of the Guard and Reserve in future force. I obviously represent a great deal of it in Ohio, and we are very, very proud of them. I am concerned that the National Guard will lose 8 percent of its strength. And I am wondering if, for the

record, you can provide additional information on which assets will be retained and what assets will be divested.

[CLERK'S NOTE.—The Army is prepared to brief the Members and/or Committee staff on this issue.]

Ms. KAPTUR. I will also just comment that in the region that I represent we have different bases, Reserve, Guard. Many of them all have mechanics. They are not necessarily collocated, but you can see a way of savings for basing trucks, basing planes. And the commanding officer of a Reserve unit sits over in Chicago while the unit might be in Toledo, Ohio, and I am going, "This makes no sense."

So the integration of Reserve, Guard units, along with regular force. We have our first unit commander of our F-16 unit at Toledo who is actually regular Army Air. This is the first time this has ever happened historically. So we see the integration happening. I want to encourage you along those lines. I have so much faith in our Guard and Reserve Forces. And thank you for including them in your restructuring. But can you tell us for the record what assets will be——

General ODIERNO. So what we do, ma'am, is first off, to your comment, as we get down to 450,000, which is in the President's budget, 54 percent of the Army will be in the Reserve and National Guard and 46 percent in the Active. We are the only service who has more structure in our Guard and Reserve than our Active, and that is because we are totally dependent on what they do.

What we do for structure is—I don't want to get into too much detail—we go total Army analysis, which identifies what we need. So what we then do is we divide that up between the Guard, Reserve, and the Active and provide that to the Guard and then we tell them, you have to give us this kind of force, this many combat brigades, this many engineering brigades, this much truck companies. And then we ask them, working with them, they determine where that structure will be inside of the Guard working with each State.

So I can't tell you specifically, because we work with the Guard, but what I can lay out for you is what is the structure in the Guard that we want to have, and then we work with the Guard to develop that very specific laydown from State to State.

Ms. KAPTUR. I would just say also to my colleagues who may not represent Guard or Reserve but have big bases that are Regular Force, if you look at the threats we are facing globally, that also can sting us good here at home, I think it is really important that we think about the way that we deploy our Guard and Reserve, who may be needed in the future regionally. They know their communities very well. They need to be integrated with our Homeland Security and our regular police. And this is all ahead of us, but I think it provides us with a strength regionally in each of the places that we represent that is really very important.

General ODIERNO. And, ma'am, the final thing I would say is with the reduction in the Active Component to 46 percent of the force, in certain areas we are going to be more reliant on the Guard and Reserve than we ever have been before, and specifically in combat support, combat service support, because they probably in some case will be our first responders, because that is where the

structure is. And so we have to work very carefully and closely with them to do the integration, as you pointed out.

Mr. FRELINGHUYSEN. Thank you, Ms. Kaptur.

Ms. KAPTUR. I want to associate myself with whatever the Chairman said about Ukraine. And I want to ask General Odierno if you could provide for the record an answer to the question of, since Ukraine is not a member of NATO, what models are there militarily of providing a multinational security force outside of NATO to meet the threat at Ukraine's border. I would appreciate your thoughts on that.

[CLERK'S NOTE.—The Army is prepared to brief the Members and/or Committee staff on this issue.]

Ms. KAPTUR. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. For the record. It may be in the course of further questions. We are going to try to get around to do some more questions. Thank you, Ms. Kaptur.

Mr. Graves.

REMARKS OF MR. GRAVES

Mr. GRAVES. Thank you, Mr. Chairman.

Gentleman, thank you for being here. And it is just good to have you before us. And a lot of the questions have already been asked, and I am sort of at the end of the podium here, if you would call it that. But I did want to associate myself with Ms. Kaptur and Mr. Womack and Mr. Diaz-Balart about the importance of the Reserves and the National Guard.

And I sense that there is an expectation that when called to duty, they are to look and to perform as Active Duty and to blend and be prepared and ready to go. And with that, I would suspect that it would be wise that they are equally trained and equipped as Active as well, and I would hope you would keep that in mind, because so much is expected of them. And they are wonderful men and women who blend into our communities and are a great advocate for the Army as well when they are not in an Active role.

HUNTER ARMY AIRFIELD

But just changing a second, I had the privilege a few weeks ago to spend some time at Hunter Army Airfield in Savannah area, along with Fort Stewart, and it was a great opportunity to visit with the local leaders and with the men and women there that are serving. And, quite frankly, it was very inspiring. I was really inspired there.

But one thing that stood out to me, and maybe, Mr. Secretary, you could comment on this, and you probably deal with this in a lot of different bases, but at Hunter Airfield particularly there was this hangar that has been there probably 70, 80 years, and it was originally designed for the early bombers and still looks as a relic there on this base. But within this hangar were billions of dollars worth of aircraft. Many of them were being disassembled and reassembled, as is required, refitted and such.

And it just struck me that here is a hangar that was 70, 80 years old that is not in great shape, obviously, providing some protection from the elements, but in a coastal region, protecting billions of

dollars of equipment. What is the remedy for that? Is there a list in which things such as that are to be prepared or fixed in the future? And maybe you could just share that, Mr. Secretary.

Mr. MCHUGH. Well, I would be happy to, Mr. Graves. I have been to that hangar.

Mr. GRAVES. You have seen it.

Mr. MCHUGH. I have flown in and out of that Army airfield any number of times. And great soldiers, civilians doing incredibly important work.

As you noted, some of our facilities have approached museum age, and we recognize that. But in terms of our military construction programs, we try to lay out through the Future Year Defense Plan a program where we address facilities that are of the most urgent replacement or major facility modernization.

Just to use our recent budget and the challenges that we face for replacement programs like you envision at Hunter, we should really have about 40 percent more budget than we have needs right now, and under sequestration that will only become more dire. Our facilities maintenance program, frankly, is designed to be at a 90 percent standard, in other words we are supposed to be investing FSM, it is called, 90 percent of our needs. The President's budget provides about 79 percent of those needs, so we are below our historical average, and sequestration would take us to about 62 percent.

And what that means is that gap between 90 and 62 are buildings that are continuing to erode, continuing to degrade. And over the last few years, we have been getting further and further and further behind. So even if we had a sufficiently large check, it would still take us a number of years to catch up. And as we have discussed here, sufficiently large checks seem to be in somewhat short order at the moment.

Mr. GRAVES. Right. And maybe you could share, is there a priority list of some sort that bases can look to and see?

And might I add, Mr. Chairman, when I was there, I had a great meeting, and Colonel Kline led us there, and in no way did they complain or make an issue of it. In fact, they were proud of their innovation and their creativity to work within the limited resources they had. And that was inspiring to see that. But at the same time, I felt like, wow, we as a committee have a responsibility, one, to protect the investments, but also let the men and women know that we are there and to provide an environment in which they can perform well too.

Mr. MCHUGH. Mr. Graves, as I said, we have a Future Year Defense Plan over which we lay out the hoped-for construction schedule. Each facility commander rates his own needs, submits those, and then we do an Armywide assessment as to where the greatest needs lie.

[CLERK'S NOTE.—The Army is prepared to brief the Members and/or Committee staff on this issue.]

Mr. GRAVES. Thank you.

OVERSEAS CONTINGENCY FUNDING

Mr. FRELINGHUYSEN. Thank you, Mr. Graves.

I would like to reclaim my own time here. And in my opening remarks I focused very briefly on the Army's portion of what is now characterized as the Overseas Contingency Operation, which quite honestly ought to be renamed, because I think most Americans today, as we take a step back and sort of look with what is happening around the world, know that there is sort of a global war on terrorism. And if there is a possibility, be in my bill I plan to see that term OCO is replaced.

I would like to focus on the Army's part of that equation. You have always been joined in the fight and you spend that. Let me say, when we bring our bill to the floor, there will probably be more focus on that fund than any other aspect of the budget. And I would like to know how the Army is spending that money. And put into the equation the President's decision to keep 10,000 troops in Afghanistan. That changes the dynamic, because it is, what, a 3-1 ratio in terms of training, deployment.

I would like to know how that all fits together. Run the numbers for me, what the Army gets out of that account. Because when we go to the floor, we have to defend it, and I would like to defend an OCO budget or a war on terrorism budget that actually has something to do with fighting terrorism.

Mr. MCHUGH. If I could just start, and perhaps the Chief can provide some details.

As you know, Mr. Chairman, the OCO budget request for 2016 in the President's submission for the Army is \$20 billion. That generally will go to support our overseas operational programs, including Afghanistan. And whether or not this week's announcement by the President, after discussions with Afghan President Ghani, to sustain our force structure through the end of this year at 9,800 affects the OCO overall will have to be the subject of further analysis.

I say our overseas operations are in the main the driver of those costs because, as we have discussed before this subcommittee in the past, a critical part of OCO is our reset initiative, that is, bringing out equipment that we feel is reusable and putting it through our depots, modernizing it, repairing battle damage and such, and returning it to the troops. Right now we have over \$4 billion of equipment in Afghanistan as an Army that we intend and look forward to returning.

So we think OCO, even beyond the period of conflict we are looking at, whenever that might be, is going to require we have OCO for reset purposes for an additional 2 to 3 years.

Mr. FRELINGHUYSEN. Some have already weighed in, and perhaps, General Odierno, you are going to weigh in. I note Todd Harrison of the Center for Strategic and Budgetary Assessments, by using an average cost of \$1.2 million per troop per year, estimates that maintaining 9,800 U.S. troops in Afghanistan through the end of the year, 4,300 more than planned, could result in a bill that could grow to nearly \$6 billion.

Is that an accurate assessment?

General ODIERNO. I think so. How we do this, obviously, is we average it over the year. So I would say it is close, but it is probably a little bit less than that, because we budget for an average

number of people. So it will be something less than that, but that is fairly close.

So I think we will have to take a relook at what we ask for in 2016 in terms of OCO budget requests. And we are scrubbing that now, Chairman, based on the recent decision to keep individuals there longer.

Mr. FRELINGHUYSEN. So a further breakdown of the \$20.7 billion. I know, Mr. Secretary, you gave us some aspects. If you could run us through the numbers. This is the critical mass. This is where the public debate is going to focus, people saying it is being used as—a mischaracterization—as a slush fund. I would like to know where we are.

General ODIERNO. Sure. We have about \$2 billion in retrograde and reset money in there. We have just over about \$7.5 billion to support the operations inside of Afghanistan. There is another \$4.5 billion for support operations, which includes our operations in Kuwait that supports Afghanistan. And, oh, by the way, it is also dollars that now are supporting the operation inside of Iraq as well and what we are doing to support that operation. And then we have about \$2 billion which is general support funds that are used in order to support the operations as they continue to go forward.

Mr. MCHUGH. Could I add, Mr. Chairman.

Mr. FRELINGHUYSEN. Please.

Mr. MCHUGH. I am not sure I would associate myself with the phrase slush fund, but I understand the point.

Mr. FRELINGHUYSEN. I certainly don't.

Mr. MCHUGH. No, no. I wasn't—

Mr. FRELINGHUYSEN. I think that Members of Congress would not like that association.

Mr. MCHUGH. I was not accusing, Mr. Chairman.

EUROPEAN REASSURANCE INITIATIVE

General ODIERNO. And the only other point I would make is the ERI is also very important to us.

Mr. FRELINGHUYSEN. The European Reassurance Fund.

General ODIERNO. The Reassurance Initiative.

Mr. FRELINGHUYSEN. Part of the package.

General ODIERNO. That is right. That is almost about \$480 million that the Army is spending. That is paying for all of our operations inside of Europe today, our ability to rotate forces, preposition equipment, build appropriate infrastructure so we can sustain that over the long-term. If we didn't have that money, we would not be able to do any of the work that we are doing in Eastern Europe.

Mr. FRELINGHUYSEN. Well, that begs the question, and one of your remarkable colleagues is General Breedlove, who briefed us that—I can't say he endorsed the notion—but non-NATO ally support could change the dynamic for the people of Ukraine. And I am not sure where you have weighed in on that issue, but I do think we are not talking about their possibly winning against the Russians and their capabilities, but at least giving them the resources to at least stop the advance of what apparently is a desire to basically take the whole country down.

General ODIERNO. And I would argue also that this is an important time to deter and compel. And so we have to start now in our ability as NATO and non-NATO nations to deter.

Mr. MCHUGH. Mr. Chairman, the point I was going to make after my disassociation with slush fund is we do have about \$6 billion in OCO dollars that should be in our base.

Mr. FRELINGHUYSEN. But that is always something which we are pushing, a bipartisan push into the base.

Mr. MCHUGH. True. It is down from about \$11 billion when I came over to the Pentagon as Secretary. So that is not a slush fund, but it is a challenge, and it is something that as we go forward in discussions of this and future budgets we have to be mindful of.

Mr. FRELINGHUYSEN. We have to back up what we put in there. I can assure you, we are not going to back things up that aren't defensible.

Mr. Visclosky.

REMARKS OF MR. VISCLOSKY

Mr. VISCLOSKY. Thank you, Mr. Chairman.

General and Secretary, I am just a bit behind, I think, because I left for a vote.

EUROPEAN REASSURANCE INITIATIVE

First question I have, when the chairman started originally we talked about the rotation in the three Baltic nations and Poland. As that rotation occurs, it is my understanding we will always have U.S. troops in those four countries?

General ODIERNO. The plan right now is, yes.

Mr. VISCLOSKY. That is all I need. If I could get to the Ukraine and the European Reassurance Initiative, because we do have that contradiction where we have that drawdown in Europe generally speaking, but now we have the Reassurance Initiative.

As far as Ukraine, and I speak only for myself, I think if we simply continue on the path we are on, the government does not continue to be viable. Is there a list, do you have ideas, is it built into 2016 that if there is a decision made by the administration to increase assistance to Ukraine, and I am not talking about lethal assistance, but training, communications, ability to get through Russian jamming, what have you, is there, if you would, an unfunded list or is it included in the \$789 million?

General ODIERNO. We have developed a list. The \$789 million is based on the current parameters that have been set, which is non-lethal aid. If we get approval to do lethal aid, we would have to divert some of that money, change some nonlethal to lethal.

And then we have done some work, we have been focused mainly on defensive capabilities, specifically counterfire, because they have been devastated by artillery in many of their operations, as well, as you mentioned, EW. And so we are looking at some things like that, how we could help them, but obviously we have not moved. But we conduct assessment teams over there all the time to assess what their needs could be if we decide to go in that direction.

Mr. VISCLOSKY. If there would be an increase in that type of aid, is that \$789 million adequate, if you are looking ahead to 2016?

General ODIERNO. I would have to get back with you on that.

Mr. VISCLOSKY. If you could.

General ODIERNO. I will.

[CLERK'S NOTE.—The Army is prepared to brief the Members and/or Committee staff on this issue.]

Mr. VISCLOSKY. If you need more.

TRICARE

On the medical compensation proposal, the Department has put forth a proposal on TRICARE cost-sharing. The question I would have is, whether or not the Army is assuming Congress approves the administration's request, whether the Army's medical treatment facilities can handle any potential increase in demand on their services if there is a change in the copay on TRICARE?

General ODIERNO. It depends from facility to facility. There will be some that can, there will be some that cannot. But part of the proposal is ensure that there is a TRICARE network outside that the dependents of our soldiers could go to.

Mr. VISCLOSKY. Without utilizing the copay?

General ODIERNO. So what we are trying to do is the proposal would be that as they go outside, if that care is provided at any other installation on post, they would then not have to pay a copay off post. This is now I am talking about Active-Duty dependents. Retirees is a different issue. So part of that is the copay does go up for retirees.

WOMEN IN THE ARMY

Mr. VISCLOSKY. Okay. As far as the women in service, I appreciate that since the chairman's memo in 2013 the Army has opened literally tens of thousands of positions previously closed to women. When reviewing the individual occupational standards for barred positions, are you finding that there needs to be any changes as far as opening up some of these positions? And how have the physical qualification studies been included and reviewed?

General ODIERNO. So we are still in the process of doing some of these studies. There are two things we are looking at. We are looking at the physical studies, we are looking at what impact that would have across training, recruiting, et cetera, meeting those requirements, ensuring that it would be fair for all soldiers. We are taking a look at all of that. We are also looking at an integration piece to this, is what does it take to integrate females into some organizations and make sure we set that up properly and set them up for success.

So that review is still ongoing. We have put forward recently to open up engineers, but we have not yet made a determination on armor and infantry. We are still finishing up our assessment of those activities, and I expect that those will finish up some time in the September timeframe.

Mr. MCHUGH. If I could add, Mr. Visclosky.

Mr. VISCLOSKY. Sure.

Mr. MCHUGH. There has been some discussion that our examination and attempt to establish what we call MOS-specific physical

requirements is intended to lower standards to facilitate bringing women into certain jobs, and that is simply not the case.

The words the Chief used, posture soldiers for success, is really the bedrock principle of what we are attempting to put into place. And, indeed, we are told, and it is an estimate at this time, we will see how it does or does not bear out, that after we do establish these MOS-specific, job-specific standards, about 10 percent of the men who are currently in those MOS's probably will have to think about being reclassified, because they are unlikely to meet those standards.

So it is about success, it is about preparing every soldier to take on the challenges of life in the military into areas where he or she is best suited.

General ODIERNO. And the other thing would be is with this force management aspect, what the Secretary just talked about, what we don't want to do is create more unreadiness. And so we have got to manage this properly, and that is part of what we are looking at as we go through this.

Mr. VISCLOSKY. I do appreciate your good work and encourage you in the future.

And thank you very much, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you, Mr. Visclosky.

Mr. Womack.

JOINT LIGHT TACTICAL VEHICLE

Mr. WOMACK. Thank you, Mr. Chairman.

I want to go to Joint Light Tactical Vehicle for just a minute. My understanding is we are looking at a down-select sometime this calendar year.

Mr. MCHUGH. Fourth quarter.

Mr. WOMACK. Fourth quarter. So assuming that we have a down-select, when would we see load unit rate production on that particular piece?

Mr. MCHUGH. In theory, it would be late into 2015, but I don't want to give you a data point that is incorrect. So with your permission, we will get the acquisition objective timeline out for you.

General ODIERNO. Low-rate initial production would begin in the fourth quarter of 2015.

Mr. WOMACK. Fourth of 2015.

General ODIERNO. Full production we would have to come back.

Mr. WOMACK. Yeah. So my understanding is we are going to buy, in round numbers, about 50,000 of these vehicles and the Marine Corps is going to buy another, I don't know, 5,000 or 6,000, something like that.

General ODIERNO. Fifty-five hundred.

Mr. WOMACK. General O, tell me a little bit about what you personally want to—I know that there is, like, 22 prototypes out there, we have got, what, three different companies that are competing, some consortiums—but what are you looking for? What is it that we want out of JLTV that we are not getting out of Humvee or MRAP that is critical to the foot soldier?

General ODIERNO. First is mobility. What we have now is the HMMWV is not big enough in order to meet our needs and integrate all of the communications and other capabilities that we need

and to move our soldiers around. And we have made it so heavy now because of protection, it does not have the right mobility and actually I question its survivability.

The MRAP has great survivability but it lacks significant mobility that it could stay on the road. It has trouble off road. So the JLTV—

Mr. WOMACK. You are trying to find a sweet spot.

General ODIERNO [continuing]. Is going to give us that sweet spot, and that is really what we are after.

Mr. WOMACK. How critical is blast—I am assuming it is very critical and it is part of the construct—that we have got to have a different kind of blast resistance because of what we are facing.

General ODIERNO. Yeah. It is. But it is not just blast. It is the design of it, which decreases the impact of blast as well. So, for example, one of the key things of MRAPs is they were further off the ground than HMMWVs, so they provided much greater protection. So it is a combination of blast and design that provides us increased protection of our soldiers.

Mr. MCHUGH. If I may, Mr. Womack, very quickly. The other challenge that is encountered, not just in uparmored HMMWVs, but in other combat platforms that need modernization, is size, weight, and power. We have put so much weight through armor onto the HMMWV that, as the Chief said, its mobility has been severely challenged. And it just does not have the capacity and power expansion to take on our new networking systems, to take on all of the new gear that is essential for the modern and future battlefield.

Mr. WOMACK. What a departure from years past on these platforms.

The last question on JLTV. How are we going to apportion these out? Is there a distribution methodology right now, General O? How would you—

General ODIERNO. Yeah. As we do this, so we will distribute it across the total force. The majority of them in the beginning will go to the Active Component, and then what we will do is we will cascade more modern capable HMMWVs to the Guard. But over time the Guard and Reserve will receive JLTVs. So that 49,000 number is a total force number as we go forward. And, again, there will be some that go to the Guard and Reserve; there will be more that initially go to the Active.

And what we are doing is we are getting rid of the older versions of the HMMWVs, and they will get the more modern, more capable versions cascaded into the Guard and Reserve, and that will work over several years. We can get you more details on that, but that is the basic.

[CLERK'S NOTE.—The Army is prepared to brief the Members and/or Committee staff on this issue.]

Mr. MCHUGH. Just to note, because the numbers seem large, and they are at 49,900, but that is only going to replace about a third of our HMMWV fleet. So we will still have the need and the use for a lot of HMMWVs. And really our rebalance, as the Chief noted, as we are integrating JLTVs is make sure the Guard and Reserve has an equitable reception on our more modern HMMWVs.

So it is a very comprehensive JLTW–HMMWV rebalance that we will be working through. And the rebalance of the HMMWVs isn't expected to be completed until 2041. So there is some time.

Mr. WOMACK. Yeah. Look forward to the down-select.

Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you very much, Mr. Womack.

Ms. McCollum.

Ms. MCCOLLUM. Thank you, Mr. Chair.

OVERSEAS CONTINGENCY OPERATIONS FUNDING

Secretary McHugh, in your statement you said, and I am quoting you, "We now face fiscal year 2016 defense spending cap insufficient for operation in an unsustainable global security environment." So in other words, the plan seems to be here that this Congress is moving forward is maintaining BCA levels while converting OCO into a slush fund to avoid budget caps. So playing games with Defense Department spending.

So what I am trying to figure out, because I am going to ask a question about the Arctic here in a second, can the Budget Control Act—BCA budget and OCO slush fund provide the Army with the resources and the stability needed to meet readiness and modernization requirements, especially in the security environment that is becoming more increasingly complex? And I allude to—not allude to—I am asking about a U.S. Army international soldier Arctic training in Alaska that took place at the Northern Warfare Center.

So we have been talking about readiness and do we have the equipment that we have, do you have the soldiers that you have. And so I spoke to the General just briefly before the hearing started, and I am concerned about the Army having sufficiently trained and equipped soldiers onto the battlefield as the Arctic continues to open up.

And so how can you really be saying that OCO—we are saying, we are telling you, you can use that for readiness and training—aren't you limited as to how you can use it? I mean, it might be a slush fund, but it might not let you do the planning you need to do.

Mr. MCHUGH. Well, the short answer, Ms. McCollum, is we can use OCO in the ways in which Congress allows us to. Traditionally, base readiness, basic readiness, unless you are preparing to deploy to a theater, would not be a traditional use, but it would be the prerogative of Congress, from my knowledge, to change that.

It is, I think, important for us, me, to note that we support this President's budget, and we do so because it does provide, as you noted, the very important aspect of stability. And while more money, however it may arrive, is generally better than no money added, it is important, we think, to focus on an effort on a base budget so that we can have predictability, not just for our soldiers, but really for our industrial partners, who have told us time and time again how challenging it is for them to supply us with product at reasonable price when they don't know what our buying power and what our programs will be into the future.

General ODIERNO. If I could just add. We all prefer a base budget based on the budget we have submitted because, first, it is more

likely to ensure multiyear funding, which allows us to do proper planning and long-term planning, where OCO funding is year to year. And so we are not sure what it will be from one year to the next.

So although OCO is a solution, and I am not going to turn down the money that we get, because it will be much needed to increase our readiness, we would much, much rather have it in base budget, because that allows us to do many more things with it and I think allows us to build a program that will build readiness over time. And with OCO, it is year to year, and we are not sure what we will get from one year to the next.

Ms. MCCOLLUM. Well, thank you, Mr. Chair. Mr. Chair, I know we have heard from Pacific Command and AFRICOM and the rest, but I think this issue of what is going on in the Arctic and planning well and wisely with our other NATO partners and other allies in the area is really something that, when we are doing OCO as part of our readiness, doesn't allow the Army and the other parts of our U.S. military to really come forward and say what we are going to do to make sure that the Russians and the Chinese aren't overaggressive in this area.

Thank you, Mr. Chair.

TRAINING AND EQUIPPING

Mr. FRELINGHUYSEN. Thank you.

I want to reclaim my time here. I think this fund, which I am trying to rename, gives all of our services and our Intelligence Community the flexibility they need. I think most of us have sort of reached the conclusion that we live in a far more dangerous world, and who would have thought that we would be evacuating people out of different locations, that the Egyptians would be basically doing some things in the northern Sinai and doing some things in the vacuum that was created in Libya.

And may I say, in terms of some of the tanks that we are talking about, I think the Army has to sign off on some of the tank kits that they need to perhaps do the work they need to remain truly independent.

I would like to talk a little bit, and I say this in a very respectful way, that there is a lot of training and equipment in this account, but I think we need to be mindful that our enemies are doing a fair amount of training and equipping.

It disturbs me. I would like to sort of know from General Odierno, as we look around, ISIL, one projection was 15,000, then the agency suggested it was 30,000 operatives, a certain percentage being foreign fighters. There are training camps all over the place now in open sources identified in northern Africa, and the Quds Force is uncomfortably close to our training and equip operation.

How are we using our investments in training and equipping? Given the fact that a lot of what we are doing is being matched and perhaps overmatched by our enemies.

General ODIERNO. Yeah. So I think, obviously, our ability to train and equip our partners is critical and it is important for us to continue to do this.

TECHNOLOGY

We must be mindful of—one of the things I worry about in the future is the proliferation of technology is occurring at a much faster rate than it ever has been before. We have to understand and acknowledge that. And so, it is important for us to be more agile in our ability to help our partners in providing them capabilities that allows them to assist us in meeting common goals and objectives, wherever it might be, whether it be in the Sinai, whether it be in Iraq, whether it be in Syria, whether it be in the eastern Europe, or wherever it might be. It is important for us to understand that.

What I worry about is we see technology improvements, in ISIL, whether they now claim to have UAVs and other technology. Russia's expansion and the comment about the Arctic, six brigades are adding to the Arctic. They are being aggressive in eastern Europe. They clearly have invested and are increasing their capability. We have to be aware of this.

So we have to be able to not only continue to increase our own capability and capacity, we have to be able to more quickly help our allies and friends as we do this. I think it is important for us to be able to do that as we move forward.

INTELLIGENCE, SURVEILLANCE, RECONNAISSANCE—ISR

Mr. FRELINGHUYSEN. The account for which I referred to also has an element of ISR, and somebody made reference to, maybe I did to General Rodriguez talking about the vast expanse he had. Some of that is relative to no matter where it is around the world, correct me if I am wrong, relative to force protection, but some of it is relative to keeping an eye on bad people.

Tell us your feeling about where you are, your degree of comfort given the areas that our Army troops are stationed.

General ODIERNO. So I think as we are—we have to be constantly aware—we have soldiers all over Africa, we have soldiers obviously in Iraq, in Afghanistan, in Jordan. And it is important for us to make sure that we have the systems in place that allow them to be able to see the enemy and predict the potential operations to protect ourselves. And as we reduce our size, the fact that we have 3,000 soldiers and Marines in Iraq, we have got to be able to make sure we can protect those 3,000 soldiers. Although they are not doing operations, they are training and advising, and we have to make sure that we are able to protect them, and that requires ISR and some other systems.

In Afghanistan, the same thing. As we have reduced our presence we continue to provide assistance to the Afghan security forces, it is important that we still have the intel and ISR capabilities to support their protection because they become targets. That is key wherever it might be. In Africa, it is just as important as we have soldiers all over, Africa, north, central, west and eastern part of Africa, it is important for us to ensure that we have the systems in place to provide them the protections.

SPECIAL FORCES

Mr. FRELINGHUYSEN. Would you talk in general terms about some of those forces that there is a view that somehow we can reduce the big Army and somehow rely on, and may I say some of the bravest soldiers that ever were, courageous of our Special Forces. Often people think that somehow we can trade that off. Can you comment a little bit about their role in the general sense and how they assist in a variety of ways?

General ODIERNO. So as—you know, one of the great lessons—first, as we look at this uncertain world, we have to build capabilities to respond in many different ways, and part of what we learned during the last 10 or 12 years is as close to integration between conventional and special operations forces and the ability to them to work together to solve really complex problems. Whether it is training and advising in Iraq, and should we have both conventional and Special Operations Forces conducting those operations. If we ever have to expand that, we have to expand both of those at the same time. That interconnection is essential.

The same thing is going on in Afghanistan, where we have both special operations and conventional forces simultaneously conducting operations together. So this link is key. It is just never just Special Operations Forces, and they are the first ones to tell you that, that they need this support of conventional capability, enablers and combat capability for them to be successful. As we look at these diverse threats, whether it be in Eastern Europe, whether it be in Iraq, whether it be in Syria, whether it be in Africa, wherever you might choose, and place we don't know about that could pop up, it is important to have the ability to do with this with both conventional and with Special Operations Forces. So it is critical—I worry as we continue to reduce our structure if our assumptions are wrong, that we will pay a heavy price.

I worry that we get smaller and smaller, the importance of us being right becomes more important. And unfortunately, we have not had a great history of being able to predict the future. And so it is important for us to understand that as we look at these force structure reductions, are we going to be able to predict the future correctly?

Again, as I said earlier, the burden of this is going to fall on our shoulders, because we make a mistake, it will be them that go, whether they are trained or ready, they will still be asked to go. And it will cost them their lives if we have not—if we have made mistakes. So that is my deep worry. I have watched the bravery and courage of these young men and women up close and personal for 13 years and they have done everything we have ever asked them to do. We owe it to them to make sure that they get the training and systems that are necessary for them to be successful in this very complex world that we live in today.

Mr. FRELINGHUYSEN. Further questions for the Secretary? Mr. Visclosky.

CYBERSECURITY

Mr. VISCLOSKY. One line of questioning on cybersecurity, the Director of National Intelligence listed it as the first among world-

wide threats. And cyber command three fiscal years all, 2014, started a 3-year funding program to realign military civilian and contract manpower positions. Given that 2016 is the third year in the realignment, how are you doing in the Army and will it take a bit longer?

General ODIERNO. Two things: We have been asked to form 42 teams in support of them and we are ahead of schedule in developing those teams to support them, but the Army has done several other initiatives I think are very important. We established a Cyber Center of Excellence at Fort Gordon Georgia, where we are now developing all our training, all our basic cyber, both enlisted and officer force. We have developed an MOS for cyber, which is new. We are the first service to do that. It has enabled us to focus resources on developing this capability, not only to support cyber command, but also to support the Army as we have to conduct cyber operations in the future.

So we have reorganized and we have invested heavily in the future of cyber. We also have a cyber institute at West Point that is reaching out to civilians and educational institutions to help us to continue to develop cyber capability. So we are really all in on this.

Now our cyber in the next few years will move down to Fort Gordon, that is scheduled for a couple of years. That will enable us to ensure that we have all of our capability in one place. It will enable us to garner the resources there in order to properly train, for us to conduct missions in the future.

So there is nothing more critical in my mind today, and I think we have invested in this in a variety of ways to support both cybercom and our cyber's role in supporting the combatant commanders and cybercom, as well as them supporting our tactical forces in the future, because I believe cyber is going to be an important part of our ability to be successful tactically as we look to the future.

Mr. MCHUGH. We should also mention the 42 cyber teams that Chief cited are in the active component. This is a whole-of-Army effort. Indeed, the National Guard is in the process of setting up 11 cyber protection teams, the Reserves will set up 10. Obviously, particularly in the Guard where they have a very significant homeland defense aspect, that will be particularly helpful and important, and it makes good sense it seems to me to have us go to these soldiers who, in their civilian jobs, often have cyber-related employment, and bring to it an expertise beyond the training that we provide that makes them very unique, very skilled. So a whole-of-Army event. And as the Chief mentioned, we are making pretty good progress. But the vulnerability is not just from a military perspective, but from the Nation as a whole here are significant.

Mr. VISCLOSKY. Thank you.

Mr. FRELINGHUYSEN. Mr. Visclosky and I were very pleased to sign off a new reprogramming request for the center, so we expect big things from you.

Mr. MCHUGH. Thank you.

Mr. FRELINGHUYSEN. Hopefully you are working on it with all the other services.

Mr. Womack.

Mr. WOMACK. Thank you, Mr. Chairman. I don't have another question. I just feel compelled to make a comment at the risk of sounding like it is editorial in nature. There is a—there just seems to be a tendency here in Washington inside this beltway to, depending on political persuasion, to refer to OCO as a slush fund. I have to tell you, that hurts to hear it referred to—to me, a slush fund is something that would be used to spend money unnecessarily or wastefully.

And I promise you, even though we disagree on some things like ARI, and there will be other arguments down the line, and I believe these are substantive, very productive arguments, but I don't believe these gentleman here, and those that have been before us, and that will come before us are doing anything except being good stewards of the dollars that we are giving them.

So Mr. Chairman, in the season in which every single one of us are notifying young men and young women from our high schools that are receiving appointments to the Service academies to volunteer themselves to be future leaders of our military, I have just got to say, we need to be careful, that the message that we are sending is anything but that which would become a combat multiplier so that the men and women commanded by these gentlemen, and these future leaders will be enhanced.

And I just think that sometimes when we reduce the conjecture down to slush funds and those kinds of things, it sends a message that is counterproductive to the professionalism of the organizations that are being entrusted with this money. With that, I just yield back my time and I feel a lot better.

Mr. FRELINGHUYSEN. And many years ago, our Army Chief attended West Point, and we recognize that, and we have superlative force, not only that comes out of West Point, but all of our service academies and all the men and women who make up our Service.

Mr. Ruppertsberger.

Mr. RUPPERSBERGER. Does that include the Naval Academy?

Mr. FRELINGHUYSEN. Yes, of which you and I serve on the board of visitors for.

Mr. RUPPERSBERGER. I have a problem because I am co-chair of the Army caucus over at the Naval Academy board so I can't go to an Army and Navy game, or I am going to get shot by both sides.

The ranking member just talked about the cyber issue. I know you focused a lot in that. General, can you tell us how you feel how serious the cyber threat is to our national security? And secondly, more specifically, what your role will be, I mean, we are fusing information, we are getting the information out, but to national security and also from your point of view on the battlefield?

General ODIERNO. First, from an institutional perspective, we have much work to do in terms we have it to reduce the number of systems that we have, networks that we have, we have to reduce the number of networks to protect those. We are in the process of doing that. It is going to take investment on our home stations to do that. We have a program in place to do that. That is critical. We have to raise awareness in all our units, the importance of cybersecurity, and computer security and so we limit the ability for people to access.

It is a significantly important issue for us, because frankly, it is a fairly cheap and inexpensive way to attack the United States. If you are able to somehow understand how to attack our systems, whether it be militarily, or institutional systems, or our civil society, name it whether it be financial or our infrastructure, you could have quite a significant impact.

So, it is incumbent on all of us to understand that there is a threat and we witness it every day as we get more and more reports of people trying to attack. So it is critical for us that we work together on these issues.

You know, I think one of the things we have to continue to have, and this is my personal opinion obviously, is a discussion on policies and law, domestic and international law as it relates to this, because we have groups, specifically, non-state actors who are taking advantage, the fact that they are not held accountable of international law because they are not a state. So I find that to be concerning.

In the future for us operationally, I believe that we have to develop capabilities that allow us to tactically use our abilities in order to give us advantage on the battlefield and to protect ourselves against potential attacks of our adversaries. It is going to be critical for us as we move to the future.

Mr. RUPPERSBERGER. You raise a good point. I think cyber command has estimated we would lose over \$1 billion a year. Information is being stolen from all of our businesses, our medical, our academia, our space areas and that type of thing. But then there is a destructive attack, with Sony where really they can shut down operations and steal information. And yet, you talk about not only the United States passing legislation, Congress, to deal with this issue, but also we need to do it on a global area, including China, who is probably the most aggressive in stealing from us. You know, Russia is very good in this field also.

But I think—I will say this, under the Intelligence Committee I think is marking up today an information sharing, which will hopefully deal with the issue of the attack like we had with Home Depot and Blue Cross and that type of thing. By this June, this Congress has to pass the PATRIOT Act as it relates to the cyber issue or we will be in a really bad situation where our country will be less safe.

So, just as sequestration is, a lot of what we are doing now is based on what Congress is doing. I am just glad that you are focused on this threat and understand that the training and working together as a team.

Mr. FRELINGHUYSEN. Thank you, Mr. Ruppertsberger.

Mr. Secretary, General Odierno, on behalf of our committee, we thank you for being here for nearly 2½ hours, please extend our grateful thanks to the men and women you represent, whether they are here at home or abroad defending the cause of freedom. We stand adjourned.

[CLERK'S NOTE.—Questions submitted by Mr. Aderholt and the answers thereto follow:]

NEW TECHNOLOGY DEVELOPMENT

Question. With the refocus on missile technology by Russia and rising powers like China, what steps is the Army taking to develop new technologies to counter against peer and near-peer competitors in the future?

Answer. The Army has made significant investments to address the challenge of Russian and Chinese missile advancements.

To address advanced cruise missile and unmanned aerial system threats, we have begun design of the Low Cost Extended Range Air Defense (LowER AD) missile system, which will develop and demonstrate an air defense interceptor that is smaller and more affordable than Patriot. The Army has also made significant investments in technologies for long range precision fires with the Low Cost Tactical Extended Range Missile (LC TERM). This effort will develop a reduced size missile system to engage targets at ranges up to 499km. In addition, advanced navigation technologies and techniques will allow the missile to effectively operate in GPS denied/degraded environments. The extended range of this missile will allow U.S. Forces to engage in attack operations to “shoot the shooter,” providing the capability to defeat enemy missile launch systems in locations previously believed to be “protected.”

The combination of LowER AD in an active defense role and LC TERM in an attack operations role will offer increased lethality and survivability. These efforts are anticipated to transition to Programs of Record in FY21. As these efforts mature, the Army will continue to assess the threat picture to ensure that our efforts are oriented toward the most challenging enemy systems.

Additionally, our Next Generation Fires (NGF) radar effort is investigating multi-mission radars that can perform both the air defense surveillance and counter-fire target acquisition functions. The multi-mission radar will allow the Army to reduce the types of radars it employs, thus reducing associated training, life cycle support, and production costs. The NGF radar will incorporate state-of-the-art technology to defeat emerging threats and open system architecture to allow cost-effective future upgrades.

NEW TECHNOLOGY DEVELOPMENT

Question. Is the Army focusing on just countering and reacting to new weapons technologies by our adversaries or is there sufficient funding available to invest in true leap-ahead technologies? What are the focus areas the Army should pursue?

Answer.

We have developed a new Army Operating Concept that provides the intellectual foundation and framework for learning and for applying what we learn about future force development, to include Soldier development, organizational design, and technological applications. The Army Operating Concept is grounded in a vision of future armed conflict that considers national defense strategy, emerging operational environments, advances in technology, and anticipated enemy, threat, and adversary capabilities.

The Army recognizes the importance of science and technology research efforts to develop the next generation of capabilities in a broad range of areas, including autonomous systems, disruptive energetics, quantum computing, and alternative power and energy. The Army has maintained robust investment in science and technology in order to mature key technologies for future capabilities. For example, current investments are designed to provide dismounted and mounted Soldiers the capability to obtain trusted position, navigation, and timing information while operating in conditions that impede or deny access to GPS. This capability will be essential to future operational environments. Second, the Joint Multi-Role Technology Demonstrator (JMR TD) effort will demonstrate transformational vertical lift capabilities as we prepare to replace the current vertical lift fleet. Third, solid state High Energy Lasers (HEL) will enable the low-cost defeat of rockets, artillery, mortars, unmanned aircraft systems, and cruise missiles. Finally, the Army is pursuing a number of potentially game-changing technologies at the basic research level. One example is our “Materials on Demand and by Design” research that will provide the capability to build new materials from the bottom up. This research could allow the Army to design new and improved materials for ballistic protection and energetics.

Due to the ease and speed of technology transfer and adaptation by enemies, it remains critical that we accelerate new technologies to maintain overmatch. The Army will continue to invest in cyber, and in science and technology, developing lighter weight and lower volume platforms with increased protection and survivability to improve tactical, operational, and strategic mobility and deployability. Even as we adapt the way we operate and develop concepts to drive technology, the impacts of budget reductions present challenges to our modernization strategy.

Modernization enables a smaller, agile, and more expeditionary Army to provide globally responsive and regionally engaged forces demonstrating unambiguous resolve. But sequestration adversely impacts the Army's ability to modernize and field critical capabilities that improve operational readiness of aging equipment. Predictable and consistent funding is required to modernize on the current timeline, meet the evolving threat, and fully execute Defense Strategic Guidance requirements. The cumulative cuts in modernization programs threaten to cede our current overmatch of potential adversaries while increasing future costs to regain or maintain parity if lost.

Question. What is the status of the Army's Advanced Hypersonic Weapon as part of the Conventional Prompt Global Strike program? Where do you stand on the issue? Would the Army support standing up an Army-led Joint Program office to pursue a hypersonic weapon system if Congress would authorize and fund such a program?

Answer. The Office of the Secretary of Defense (OSD) manages and funds hypersonic technology development through the Conventional Prompt Global Strike (CPGS) portfolio. The Army (through U.S. Army Space and Missile Defense Command and Army Forces Strategic Command (USASMD/ARSTRAT)) supports OSD along with other agencies and services as part of a national team. The USASMD/ARSTRAT Advanced Hypersonic Weapon team is currently supporting the U.S. Navy Intermediate Range Conventional Prompt Strike Program. The Army is providing both procurement and flight test execution support to the U.S. Navy Flight Experiment 1, planned for 2017.

The existing Advanced Hypersonic Weapon team is designed to comprehensively support the Conventional Prompt Global Strike program. There is no separate Army requirement for the Advanced Hypersonic Weapon, and, thus, no basis to establish a separate Joint Program Office executed by the Army.

LEVERAGING RDT&E ASSETS IN ALABAMA

Question. What are the possibilities of leveraging the vast RDT&E assets at Redstone Arsenal and Northern Alabama to develop new technologies and capabilities in the cyber domain? To what extent are we using available FTE's, at various locations, before standing up new buildings and new commands?

Answer. Science and Technology (S&T) Cyber efforts are led primarily by the Communications-Electronics Research, Development and Engineering Center in Aberdeen, MD, and the Army Research Laboratory in Adelphi, MD. However, the Army leverages the critical capabilities and expertise of key organizations at Redstone Arsenal for this important mission.

The SMDC Technical Center (SMDCTC) in Huntsville is working with the intelligence community to characterize cybersecurity threats for nano-satellites while developing tools to assess space system vulnerabilities. SMDCTC also works to develop resiliency in the space platform industrial base supply chain while developing technology roadmaps and investment strategies for space systems. SMDCTC also has an active partnership with Auburn University in support of these initiatives.

The Aviation and Missile Research, Development and Engineering Center (AMRDEC) at Redstone Arsenal provides Cyber expertise in areas such as supply chain risk, anti-tamper, and network defense. AMRDEC has active partnerships and outreach with local schools and universities such as Auburn University, the University of Southern Alabama, Mississippi State, and the University of Alabama-Huntsville.

Additionally, Army S&T research leverages industry, academia, and other government agencies through partnerships and collaborations such as Cyber Huntsville, a non-profit organization made up of Industry, Government and Academic institutions. Through Cyber Huntsville, the Army engages in activities to develop the local cyber workforce and support local, regional, and national cyber challenges.

WEAPONS AND DEFENSE SYSTEMS

Question. There is a lot of focus on acquisition, due to the combat in Iraq and Afghanistan. What about Army research? I am concerned that we are eating today's seed corn instead of investing in the next generation of weapons and defense systems. What areas do we need to see more activity in as soon as the budget and funding allow?

Answer. Decreases to the Army budget over the past several years have had significant impacts on Army modernization and threaten our ability to retain overmatch through the next decade. Between 2011 and 2015, Research, Development and Acquisition accounts were reduced by 32% from \$31B to \$21.7B. Procurement alone dropped from \$21.3B to \$15.1B. We estimate that sequestration will affect

every Army acquisition program to some extent. Major impacts may include delays in equipping to support expeditionary forces, delays in combat vehicle and aviation modernization, increases in sustainment costs to fix older equipment, and increases in capability gaps.

However, despite these great pressures, the Army continues to protect our science and technology (S&T) investments to mature and develop next-generation technologies in support of future modernization efforts. To mitigate long-term risks to the Army's modernization efforts, the S&T investment has been preserved to support future capabilities. Our FY16 budget request for S&T matches our FY15 request of \$2.3 billion, which represents nearly 9.5 percent of overall Army RDA. By contrast, S&T was only 8.1 percent of Army RDA in FY13.

Our intent is to modernize and equip Soldiers with effective, affordable and sustainable equipment that is ready and tailorable to support the full range of Combatant Command requirements. The President's Budget request would provide over \$2B to address the growing gaps in our modernization accounts.

The Army will continue to protect S&T investments critical to identifying, developing and demonstrating technology options that inform and enable affordable capabilities for the Soldier. S&T efforts will foster innovation, maturation and demonstration of technology-enabled capabilities, maximizing the potential of emergent game-changing landpower technologies. Key investments include Joint Multi-Role Helicopter, the foundation for the Army's Future Vertical Lift capability; combat vehicle prototyping; assured Position, Navigation and Timing and enhancing cyber operations and network protections. We continue to explore the possibilities of cyber, high-energy laser, materials, human performance and quantum science technologies for a variety of applications.

These Army S&T investments are strategically balanced across basic research, applied research, and advanced technology development to provide both near-term upgrades to our systems as well as invest in longterm, leap-ahead technologies. Across the portfolio, these investments will enable the Army to become more lethal, expeditionary, and agile, with greater capability to conduct decentralized, distributed, and integrated operations. Examples include development of a Future Vertical Lift capability to guide future aviation modernization, lightweight armor to provide force protection to our platforms against a range of evolving threats, and addressing emerging gaps (cyber, electronic warfare) as we operate in a contested information environment. Additionally, we will focus on Assured Position, Navigation and Timing (A-PNT) capabilities to enable operations in GPS denied environments. The Army must maintain its investment in these critical areas regardless of budget challenges.

The centerpiece of the Army's Modernization Strategy continues to be the Soldier and the squad. The Army's objective is to rapidly integrate technologies and applications that empower, protect and unburden the Soldier and our formations, thus providing the Soldier with the right equipment, at the right time, to accomplish the assigned mission. The Army will support this priority by investing in technologies that provide the Soldier and squad with advanced war fighting capabilities such as enhanced weapon effects, next generation optics and night vision devices, advanced body armor and individual protective equipment, unmanned aerial systems, ground based robots and Soldier power systems.

Improvements to mission command will facilitate the decision-making of leaders and Soldiers across all tactical echelons for Unified Land Operations in support of the Joint Force and allies. The Army will develop and field a robust, integrated tactical mission command network linking command posts, and extending out to the tactical edge and across platforms. We will build enhanced mission command capabilities and platform integration by fielding software applications for the Common Operating Environment, while working to converge operations and intelligence networks.

Based on the current and projected demands for ISR, the Army adjusted the Gray Eagle unmanned aerial system program's fielding schedule to make more assets available to strategic and operational commanders this year. The Army also expanded the Aerial Intelligence Brigade with an additional 18 Gray Eagles for a total of 36 aircraft, and an increase from 48 to 165 soldiers per company.

With respect to combat platforms, and those desired to enable greater protected mobility, the Army's objective is to consider the most stressing contingency operations and make its fleets more capable. In addition to the Apache AH-64E and Blackhawk UH-60M investments, which support the Army's Aviation Restructure Initiative, the Army will continue development of the Armored Multi-Purpose Vehicle to replace the obsolete M113 family of vehicles and begin to produce the Joint Light Tactical family of vehicles. The Army will also continue to make improvements to the survivability, lethality, mobility and protection of the Abrams tank, Bradley Infantry Fighting Vehicle and Paladin self-propelled howitzer fleets. While

resource constraints will force the Army to delay new system development and investment in the next generation of capabilities, we will execute incremental upgrades to increase capabilities and modernize existing systems.

Few choices remain if modernization accounts continue to bear the brunt of sequestration. Army programs may have higher unit costs and extended acquisition schedules. Sequestration will create severe reductions in buying power and further delays filling capability gaps, forcing the Army to tier modernization—creating a situation of “haves and have nots” in the force.

SHORE DEFENSE

Question. What role might the Army play in a high-tech kind of shore defense? For example, weapons which are, in effect, multi-mile range cannons fired from shore, not unlike cannons of previous centuries, except using very advanced projectiles?

Answer. The Army—the foundation of the Joint Force—will play a key role along with the Office of the Secretary of Defense and Joint Service partners in shore defense. We have developed a new Army Operating Concept that provides the intellectual foundation and framework for learning and for applying what we learn about future force development, to include Soldier development, organizational design, and technological applications. The Army Operating Concept is grounded in a vision of future armed conflict that considers national defense strategy, emerging operational environments, advances in technology, and anticipated enemy, threat, and adversary capabilities. As part of this operational concept, the Army is developing and maintaining operationally adaptable fires capabilities that can match a wide range of targets.

The current Army Fires Strategy identifies capabilities that could provide security cooperation assistance to partner nations by providing a capability to secure key terrain (e.g., the Strait of Hormuz) that could also deny our adversaries freedom of movement. These high tech shore defense capabilities enjoy a unique advantage because they are free of the highly nodal structure of air and naval forces; are able to harden, conceal, and disperse their capabilities; and present adversaries with a target set that is larger, more difficult and costly to attack.

The Army's fires strategy includes a future Paladin system with the Extended Range Cannon-Artillery (ERCA) armament package, and by firing the NAVY High Velocity Projectile it could play a role in a land-based defensive scenario. The ERCA-Paladin system based on the current M109A6/A7 fleet, using its current ammunition suite, as well as those in development under the ERCA program (XM1113 and Extended Range Artillery Projectile), could prove advantageous against landing type vessels and other similar threats in these scenarios with a proposed objective range of more than 70 kilometers.

The Aviation and Missile Research, Development, and Engineering Center (AMRDEC) is in the process of adapting existing Army and Marine Corps High Mobility Artillery Rocket System (HIMARS) and Multiple Launch Rocket System (MLRS) rockets systems to provide a land-based offensive surface warfare capability as well. The Army is also developing a High Energy Laser (HEL) weapons designed to demonstrate robust performance against rockets, artillery, mortars, UAVs, and a subset of the cruise missile threat. As HEL technology continues to advance to higher power levels, advanced capabilities against a greater target set will be possible.

However, it's important to remember that sequestration and fiscal constraints adversely impact the Army's ability to modernize and field critical capabilities such as these and others that improve operational readiness. Predictable and consistent funding is required to modernize on the current timeline, meet the evolving threat, and fully execute Defense Strategic Guidance requirements. The cumulative cuts in modernization programs threaten to cede our current overmatch of potential adversaries while increasing future costs to regain or maintain parity if lost.

[CLERK'S NOTE.—End of questions submitted by Mr. Aderholt. Questions submitted by Mr. Carter and the answers thereto follow:]

IT SYSTEMS

Question. As you know, information technology (IT) is becoming a more critical part of all our military systems and operations. However, the many bureaucratic hurdles and esoteric requirements of the DOD system have resulted in the vast majority of IT innovation occurring in the commercial market and not reaching the DOD. Further, many of the most innovative IT companies are hesitant to engage

with the DOD. With that in mind, how does the Army plan to adapt its approach to acquiring and fielding IT systems and make itself a more attractive customer for the most innovative commercial IT companies?

Answer. IT capability is critical to connecting our global Army, yet commercial innovation often outpaces our traditional acquisition processes. As part of the Department's Better Buying Power initiative, the Army is working to address the challenges associated with access to commercial innovation and IT acquisition. The Army is currently participating in Department-wide efforts to identify barriers to the adoption and use of commercial technology for military systems. This study will facilitate recommendations to improve the incorporation of commercial off the shelf technology from nontraditional information technology contractors. Additionally, the Army is working to communicate more effectively with nontraditional contractors to outline Army requirements and ascertain how to best leverage existing technology for military use. A related area of focus is designed to improve the process for technology insertion into our current weapon systems. This allows the Army to more quickly leverage commercial innovation as opposed to waiting until the overall system is modernized. Moreover, the Army is also investing in modular open systems architecture. Open architecture standards and modularity opens the market to more companies with cutting edge capabilities that may not traditionally compete for development of a full system.

The Army has also begun to explore the acquisition of IT services as opposed to the traditional buying and/or building of IT capabilities. IT management systems such as unified capabilities for voice, video, and chat are necessary, but the Army may not need to own the associated equipment and software. Procuring IT capabilities as a service may allow the Army to take advantage of commercial IT management expertise while ensuring we have access to cutting-edge technologies.

Finally, to increase partnership between the department and technology leaders, the Secretary of Defense announced the creation of the department's first permanent office in Silicon Valley as well as a plan to provide venture capital to tap into developing technology for use across the Army and DOD. The Army is looking forward to working through these new initiatives to leverage new technologies that make us faster and better connected. These steps are the first of many to improve our ability to adopt the cutting edge technologies that will enable our information dominance into the future.

MILITARY VALUE ANALYSIS

Question. We are on path to reduce the size of our Army to 450 thousand in 2017, a number we have not seen since the late 1940s. It is incredibly alarming to say the least. This is occurring at a time where we are fiscally constrained. This requires all of us to continuously seek out the most cost effective solutions as we stay focused on the security of our citizens and defense of our homeland. Can you talk about the Army's Military Value Analysis Model and how it will be used to analyze and direct cost saving measures in the coming years? What do you see as the most critical cost considerations as you look across the Army's infrastructure and consider reductions?

Answer. The Army considers a broad array of criteria when making basing decisions as to which forces should be aligned with which installations. The criteria are based on strategic considerations, operational effectiveness, geographic distribution, cost and the ability to meet statutory requirements. They are:

- Strategic Considerations: Aligns Army Force Structure to the Defense Strategy and Defense Planning Guidance.
- Operational Considerations: Seeks to maximize training facilities, deployment infrastructure, and facilities to support the well-being of Soldiers and their Families. Aligns appropriate oversight/leadership by senior Army headquarters for better command and control.
- Geographic Distribution: Seeks to distribute units in the United States to preserve a broad base of support and linkage to the American people.
- Cost: Considers the impacts of military personnel, equipment, military construction, and transportation costs.
- Statutory Requirements: Complies with the provisions of the National Environmental Policy Act (NEPA) as appropriate, including an environmental and socio-economic analysis.

The Army has completed listening sessions at the Army posts that may be affected by the drawdown and will evaluate the comments and make a decision on where to reduce in the future. An announcement is not expected before the end of June 2015.

[CLERK'S NOTE.—End of questions submitted by Mr. Carter. Questions submitted by Mr. Ruppertsberger and the answers there-to follow:]

CBRN DEFENSE SPENDING

Question. Are you sufficiently funded in CBRN defense? If not, where would increased funding be helpful?

Answer. The Army is sufficiently funded for CBRN defense, with all our validated requirements addressed. Additional money could be responsibly spent on procurement of radiological and nuclear defense items.

ACCOUNTING FOR CBRN INDUSTRIAL BASE

Question. As you work to balance force reduction, budget impacts and modernization, do you take into account effects on industrial base?

Answer. Yes, we do consider the effects on the industrial base. The Army's Industrial Base consists of Government-owned (organic) and commercial industrial capability and capacity that must be readily available to manufacture and repair items during both peacetime and national emergencies. We are concerned that we will not be able to retain an Army Industrial Base that provides unique capabilities, sustains the capacity for reversibility and meets the manufacturing and repair materiel demands of the Joint Force. In the Commercial Industrial Base, prime suppliers have increased their role as integrators, and delegated key innovation and development roles to a vast and complex network of sub-tier suppliers. Sub-tier suppliers have responded with their own complex network of suppliers, some of which are small, highly skilled and defense dependent firms these small and specialized firms serve as the warning indicator that gauges the health of the overall industrial base. In FY14, the Army identified those commercial sector industrial capabilities vital to our national defense and sustainment of a credible and capable smaller force. We must continue to protect these capabilities.

CBRN INDUSTRIAL BASE

Question. Does the Army risk losing its CBRN industrial base and the accompanying technological superiority?

Answer. The Army's Industrial Base consists of Government-owned (organic) and commercial industrial capability and capacity that must be readily available to manufacture and repair items during both peacetime and national emergencies. We are concerned that we will not be able to retain an Army Industrial Base, inclusive of a CBRN industrial base, that provides unique capabilities, sustains the capacity for reversibility and meets the manufacturing and repair materiel demands of the Joint Force.

The risks to CBRN equities are due to several factors. First, the overall reduction in defense spending on CBRN. Second, the constant declining workload for CBRN items in the Army's Organic Industrial Base (OIB) forces us to make remaining items in the private sector, where long term production capability is often not fiscally viable to the contractor. Finally, the lack of profitability or production maintainability for CBRN items in the private sector results. These factors all result in a declining industrial base, subsequently driving up overall costs to meet surge demands during specific scenarios or major contingency operations. Current studies confirm that the full spectrum of the industrial base cannot sustain force CBRN requirements under specific contingency scenarios.

Much of the CBRN funds that are available are sent to the private sector, further declining the workload within the OIB and reducing surge capacity flexibility inherent in the OIB.

The Joint Program Executive Office for Chemical Biological Defense (JPEO-CBD) and U.S. Army Materiel Command (USAMC) are engaged in CBRN-Organic Base policy and legislative framework reviews to help sustain the critical manufacturing capability of Pine Bluff Arsenal's CBRN mission and identify suitable workload for the arsenal.

[CLERK'S NOTE.—End of questions submitted by Mr. Ruppertsberger.]

TUESDAY, APRIL 14, 2015.

DEFENSE HEALTH PROGRAM

WITNESSES

LIEUTENANT GENERAL DR. DOUGLAS J. ROBB, DIRECTOR, DEFENSE HEALTH AGENCY

LIEUTENANT GENERAL PATRICIA D. HOROHO, SURGEON GENERAL, UNITED STATES ARMY

VICE ADMIRAL MATTHEW L. NATHAN, SURGEON GENERAL, UNITED STATES NAVY

LIEUTENANT GENERAL THOMAS W. TRAVIS, SURGEON GENERAL, UNITED STATES AIR FORCE

OPENING STATEMENT OF CHAIRMAN FRELINGHUYSEN

Mr. FRELINGHUYSEN. Good morning. The committee will come to order. This morning the committee holds an open hearing on the fiscal year 2016 budget request for the Defense Health Program.

I would like to welcome the Director of the Defense Health Agency, Lieutenant General Douglas Robb. This is your first time testifying before the subcommittee and we are looking forward to hearing how your relatively new agency is operating under your leadership.

I would also like to welcome back three Service Surgeons General, Lieutenant General Patricia Horoho of the Army, Vice Admiral Matthew Nathan of the Navy, and Lieutenant General Thomas Travis of the Air Force.

All three of you, I understand, are short-timers, and I understand this may be your last testimony before the committee, but on behalf of the committee we want to thank you for your years of dedicated service to military medicine and the Nation and wish you the best in your future endeavors. And may I say thank you for your roles over the last decades in terms of meeting the needs of our soldiers and sailors and all those airmen who have worked so hard on behalf of the work of freedom in Iraq and Afghanistan and around the world.

And I know that all of you have been intimately involved in so many cases of issues that relate to those who have paid the ultimate sacrifice, as well as those who have paid with a loss of limb, had issues of traumatic brain injury, and you have been intimately involved in all sorts of things on the battlefield, on various bases in the Middle East, and the very important element of transporting so many of these young people from both Iraq and Afghanistan through Landstuhl back here to the States for the best medical care that they could possibly receive. And on behalf of all of our committee, and I know Mr. Visclosky and all members of the committee, we are extremely grateful for the years of combined service.

I said to you before the meeting you are sort of regarded as the inseparables. And I know that you have been working very closely together. And we admire the whole issue of jointness, but joint dedicated service for that length of time we want to especially recognize this morning.

General HOROHO. Thank you, sir.

Mr. FRELINGHUYSEN. This committee has always supported robust funding for the Defense Health Program to meet the commitment to provide the very best in medical care to the service men and women who defend our country. However, we are once again facing the looming threat of sequestration and reduced budgets. While we continually hear about negative effects on readiness and equipment modernization, we also remain concerned about any effects the declining budget may have on our world-class military health system and how it meets your quadruple aim: improved readiness, better health, better care, at lower cost.

Additionally, as has been the case for the last decade, the Department faces a challenge from the growing cost and long-term sustainability of the military health system. The fiscal year 2016 budget request for the system is approximately \$47.8 billion, nearly 10 percent of the entire defense budget request, and includes the entire Defense Health Program and costs related to military health personnel, medical accrual, and military construction, the latter of which is not included under the jurisdiction of this committee, but we are absolutely keenly interested in that aspect.

Once again the budget request assumes savings associated with several controversial TRICARE proposals, propositions that have been rejected by Congress for at least the past 3 years. As a result, this Appropriations subcommittee has had to add hundreds of millions of dollars to cover the assumed savings. We are interested to hear how these proposals may have been improved from the rejected proposals to garner increased support.

Our committee also remains very concerned about the progress on the electronic health records and issues of interoperability between the Department of Defense and Veterans Affairs systems. The optics on this matter continue to bother all of us, as 8 years ago we started investing in what we thought was a seamless system. It seems we are far from it.

I understand that headway has been made in sharing records in the legacy electronic systems of both of these departments and that the Department of Defense is currently reviewing some expensive, to my mind, some very expensive proposals for their future system. While it is encouraging to see that we have seen some improvement, it is imperative that the goal of genuine interoperability between the departments is not forgotten, as Congress fully mandated full interoperability and our committee has provided significant funding so that it would be accomplished.

Whatever the national focus on problems facing the VA, of course, we hope we never hear the sort of problems they have that relate to our system.

So welcome. We look forward to your testimony and to an informative question-and-answer period.

Now, before we hear your testimony, I would like to turn to my ranking member, Mr. Visclosky, for any comments he may wish to make.

RANKING MEMBER VISCLOSKY OPENING REMARKS

Mr. VISCLOSKY. Thank you, Mr. Chairman.

First of all, I want to thank the chairman for holding the hearing today. And I would associate myself with his entire statement, and thank all of you for your service and for what you do for the health care of all of our people in the military uniform.

Obviously our responsibility, as well as yours, is to see how, looking towards the next fiscal year, we can do it even better. And as the chairman alludes, we continue to have concerns relative to the communication between the Department of Defense and the Veterans Administration, particularly given the Theater Medical Information Program that you run. So I look forward to your testimony and the question-and-answer.

And, again, thank you, Mr. Chairman.

LT. GEN. ROBB OPENING STATEMENT

Mr. FRELINGHUYSEN. Thank you, Mr. Visclosky.

General Robb, front and center. Good morning. Welcome.

General ROBB. Thank you very much. Chairman Frelinghuysen, Ranking Member Visclosky, and members of the subcommittee, thank you for the opportunity to appear here today. I am pleased to represent the Defense Health Agency and present its request for funding of the medical programs for fiscal year 2016.

On 1 October 2013, the Department established our Nation's newest combat support agency, the Defense Health Agency. I am proud to be its first director.

Our responsibilities are clear: to support the Service Surgeons General and our combatant commanders in the execution of their missions. Much like the Defense Logistics Agency or the Defense Information Services Agency, our responsibility is to offer joint, integrated solutions to the military departments where they make sense and where it provides value.

By building a management structure with an enterprise focus, the Defense Health Agency is helping to ensure a medically ready force and a ready medical force, and we are already seeing results. We have used a rigorous and a repeatable business case analysis and a business process reengineering to improve how we as a military health system deliver services. We have successfully established 10 shared services and achieved \$236 million in savings in just our first year of operation.

The budget the Department is proposing for 2016 reflects the improved business processes that the military health system leadership team, led by the Surgeons General and Dr. Woodson, has introduced. The Department of Defense is requesting approximately \$32.2 billion for the Defense Health Program. Compared to last year's budget, this request represents an increase of less than 1 percent.

This budget supports the core values of our military health system strategy: improved readiness, better health, better care, and a

responsible financial stewardship. As one component of this last aim, the Department has again proposed a series of modest efforts to rebalance the health cost shares borne by the government and the beneficiaries we serve. These proposals ensure the Department will continue to provide one of the most comprehensive health benefits offered in this country.

I want to briefly mention the combined threats faced by sequestration. The Department's commitment to quality of care is sacrosanct. In the event of sequestration, we will not allow quality to suffer or place any patient at risk, period. But there are significant negative long-term effects on the overall military health system that can undermine our means to support readiness.

We understand the Department of Defense must do its part in addressing the Nation's budget concerns. However, it must be done in a responsible and a judicious manner. The Defense Health Agency is part of that solution and will achieve these ends through a responsible management approach.

I am honored to represent the men and women of the Defense Health Agency, and I look forward to the questions that you may have.

[The written statement of Lieutenant General Robb follows:]

Prepared Statement

of

Lieutenant General Douglas Robb

Director, Defense Health Agency

REGARDING

THE MILITARY HEALTH SYSTEM

BEFORE THE

HOUSE APPROPRIATIONS COMMITTEE

DEFENSE SUBCOMMITTEE

APRIL 14, 2015

Not for publication until released by the Committee

Chairman Frelinghuysen, Ranking Member Visclosky and members of the Subcommittee, I am pleased to represent the Defense Health Agency (DHA) and present its request for funding of medical programs for fiscal year 2016. I am honored to represent the dedicated military and civilian medical professionals in the DHA whose work directly supports our combatant commanders, the Military Services, and the many individuals who rely upon us for their care. And I am also representing the Assistant Secretary of Defense (Health Affairs) (ASD(HA)) who is responsible for the overall Defense Health Program (DHP) appropriation.

The military health system (MHS) remains a vital component of our national security strategy. Our primary mission is to ensure a medically ready force, and a ready medical force. We ensure a ready medical force by sustaining the clinical skills of our medical forces, and delivering quality health services for 9.2 million eligible beneficiaries worldwide. The budget we have presented is fully aligned with our enduring commitments around the globe and with the strategic objectives of the Department.

In October 1, 2013, the Department established the Defense Health Agency, also designated as a Combat Support Agency, for the specific purpose of supporting the effective execution of the MHS mission. I am proud to be the first Director of the DHA. My responsibilities include managing and executing the DHP appropriation as directed by the ASD(HA); managing shared services to include the TRICARE health plan; supporting coordinated management of enhanced multi-service markets; and exercising authority, direction and control over two military hospitals in the National Capital Region (Walter Reed National Military Medical Center and Fort Belvoir Community Hospital).

Events of the past year reinforce the fundamental need to maintain a high state of readiness for all types of threats. The growth of ISIS, the outbreak of Ebola in western Africa, our continuing obligations in Afghanistan, and other notable events serve as visible reminders of the depth and breadth of the MHS's responsibilities and capabilities in providing medical support to military commanders for a wide range of threats. Ensuring this ready medical force is not a "pick-up game" – our capabilities and capacity must be equal to the threats we face. And we expect that demand for our military medical capabilities will remain high for the foreseeable future.

For Fiscal Year 2016, DoD is requesting approximately \$32.2 billion for the Defense Health Program. Of this request, nearly \$24 billion will support direct patient care activities in our military hospitals and clinics, as well as care purchased from our civilian sector partners. The DHA has responsibilities for distributing the financial resources that are under the authority, direction, and control of the Assistant Secretary of Defense (Health Affairs). This budget request will adequately fund daily operations plus our research programs; and it provides sufficient resources to procure needed medical equipment. Compared to last year's budget, this request represents an increase of less than 1 percent.

Congress has been extremely generous in granting the Department carryover authority each year. This has been an invaluable tool that provides needed flexibility to manage issues that emerge during the year of budget execution. Given the size of our program and the inherent uncertainty in medical usage and costs, and especially medical claims costs related to our TRICARE program, carryover authority allows DoD to better manage the financial volatility within our program. That authority has been helpful to the Department, and we request that it be continued in FY 2016.

This budget supports the core values of the MHS strategic plan, and our strategic framework – the Quadruple Aim: improved readiness, better health, better care, and lower cost. We are committed to sustaining the superb battlefield medical care we have provided to our warriors and the world-class treatment and rehabilitation for those who bear the wounds of past military conflicts. This budget also sustains the long-term medical research and development portfolio allowing us to continually improve our capability to reduce mortality from wounds, injuries and illness sustained on the battlefield.

While the MHS is highly valued as a system of care, we also recognize that it remains a microcosm of American medicine. We are buffeted by some of the same challenges as our civilian peers. We must migrate from a system of healthcare to a system of health. We must hold ourselves accountable for high quality and patient safety. We must serve as wise stewards of the taxpayer's dollars and balance resources and investments in ways that support recruitment, retention and meet the long-term obligations of those who have served us in the past. And, as a public institution, the MHS must develop and execute its strategy with full transparency both internal to the Department and with our external stakeholders.

Improved Readiness

One of our most immediate and strategic challenges is to maintain a ready medical force. In the absence of war – and the welcome reduction in military casualties – we need to continue to ensure our clinical teams are challenged while serving here at home.

Unlike civilian health care institutions, our medical infrastructure – facilities, people, equipment – is not built based on local population projections. It is built upon our wartime requirements to be ready for the full range of military operations – combat, humanitarian, or

disaster response. This wartime requirement includes the provision of primary care services and the prevention of disease.

Once we determine what the Department needs to respond to multiple threats and contingencies, the next imperative is to keep our military medical professionals prepared for combat. Today, DoD is at 55 hospitals in our system of care – a number that has been shrinking even during the wartime years, largely due to the evolution in American health care delivery, the continued migration of care from inpatient to outpatient settings, and the increased sub-specialization of care. It is essential for the Department to adapt to these changing circumstances, and we are.

Over the last several years, the Department has undertaken a comprehensive analysis of our direct care system, known as the MHS Modernization Study, which is aimed at better matching our requirements and our infrastructure. Our overarching purpose is to ensure our medical teams are able to maintain their wartime skills. In the FY 2015 National Defense Authorization Act (NDAA), Congress asked the Department to provide our study along with answers to several other questions to the U.S. Government Accountability Office (GAO) so that they may assess our analytical approach. We plan to deliver the study and the answer to these questions in the coming month.

In addition to the ensuring our military forces and military medical forces are ready, our proposed budget reflects the life-long obligations we have to those who have been wounded or fallen ill in service to our nation. Specific research programs support efforts in combat casualty care, traumatic brain injury, psychological health, extremity injuries, burns, vision, hearing and other medical challenges that are of particular concern and interest to the military community. In

addition to our research programs, many seriously wounded service members are medically retired – and eligible for TRICARE benefits in addition to their VA care. Thus, our budget also reflects those long-term clinical and financial requirements to ensure these service members have access to the most current, evidence-based medicine.

The Department has made exceptional progress in implementing the President's Executive Order to improve mental health care for service members, veterans and their families: we have improved services for service members as they transition to the Department of Veterans Affairs (VA) after separation: we have launched comprehensive communications campaigns to raise awareness of how to best treat mental health issues and reduce the stigma associated with that treatment; we have introduced suicide prevention strategies; we have expanded the number of providers in our network; we have introduced tele-mental health capabilities to allow beneficiaries in remote locations to reach mental health specialists; we have embedded behavioral health specialists in our primary care medical homes; and we continue to invest – along with the VA – in cutting edge research to advance our understanding of how to prevent, diagnose and treat mental health conditions, to include post traumatic stress disorder. We are seeing signs of progress, to include success in reducing the stigma associated with mental health care, seeing more patients while simultaneously increasing access to care.

Another critical support component of our readiness mission is the fielding of a modernized Electronic Health Record. This major acquisition program has understandably generated great interest from Congress and from the private sector. In the FY2016 budget, DoD has requested \$634.9M in support of its electronic health record modernization and interoperability efforts. Upon acquisition award, the DHA will continue to work closely with the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics to

successfully implement the EHR. We will ensure the infrastructure is in place to support our technology, and we will ensure our people are trained and clinical and business processes are reengineered to best integrate the new technology into the military health care delivery system.

DoD and the VA continue to share more information than any two other large-scale health systems in the country. Providers in both agencies, through the Joint Legacy Viewer, have the ability to view the individual medical records in the counterpart system – whether that is DoD’s AHLTA record or the VA’s VISTa record. We know that our work is far from finished. DoD continues to improve data sharing efforts in partnership with the VA and the private sector to create an environment in which clinicians and patients from both Departments are able to share current and future healthcare information for continuity of care and improved treatment. By April 2015, we will have met all interoperability and data sharing requirements included in the FY2014 NDAA.

The demand for interoperability extends beyond just DoD-VA information sharing. Integration of our health information with the private sector is essential – more than half of the care provided to the DoD population is delivered through our TRICARE network partners.

The formal Request for Proposal to acquire an off-the-shelf product was released in 2014, and proposals are in the process of review. The Department anticipates that this approach will save between \$2 and \$5 billion over the previous strategy.

Our readiness mission extends to the long-term investments we make in the area of global health. The Ebola crisis and response is only the most current example of our global health capabilities and obligations. While our nation’s role in confronting the national security threat

from infectious disease in west Africa has been truly a game-changing military engagement, it still only represents one element of our global health strategy.

Our military-to-military medical global health engagements are helping to build host-nation public health capacity, reduce the spread of HIV, and foster greater interagency cooperation in support of our national objectives. Our response to disasters in Haiti, the Philippines, Japan, and other incidents have been important in ways that go beyond the core mission of saving lives and restoring infrastructure. We have helped create the capacity of host-nations to better prepare for and manage crises locally. We have strengthened relationships with international and non-governmental organizations, and our military medical infectious disease research has been instrumental in charting paths forward in understanding how to diagnose, treat and prevent diseases before they become epidemics.

Better Health

We are continuing our internal efforts to “move from healthcare to health.” Operation Live Well remains the overarching framework for a set of programs and services we are offering to our military community. We have made important strides to address the high utilization of tobacco products among our service members.

Additionally, we are assessing the successes from the Healthy Base Initiative in which fourteen military installations and defense agency offices around the world participated in customized local efforts to improve health, and well-being. Although there are many actions we can take to improve readiness, health and cost control, no single item can have as broad an effect across all of our strategic aims as a measurable change in individual and community health

behaviors. This work is important not merely for the health of the existing force, but also to ensure the health of the future force and their families. An important recruiting pool for our military forces includes the sons and daughters of those serving on active duty today. Health behaviors are established early in life – and we are committed to ensuring the entire beneficiary population has the resources and education to live well.

Better Care

The DHA is deeply involved in the conduct and follow-on actions from the Secretary of Defense’s Review of the Military Health System. The overall findings from that review found that the quality of care delivered in military hospitals and clinics is comparable to that found in civilian medicine. But “good” isn’t good enough. Our vision is to serve as national leaders in healthcare quality, access and patient safety. We are now moving forward with an implementation plan for that vision.

A major outcome from the MHS Review was to better implement principles of a high-reliability organization (HRO), those areas “where harm prevention and quality improvement are second nature to all in the organization.” For the MHS, this does not represent a fundamental change, but an evolution in culture and practice that permeates every level of the organization. Over the last thirteen years, this relentless search for how we can improve – whether it was survival from battlefield trauma or reduction in diseases – showed that, as an organization we were able to be self-critical in search of week over week, month over month improvement.

Since October, the High Reliability Organization Task Force – comprised of clinical leaders from the Army, Navy, Air Force, DHA and Office of the Secretary – has been setting the

Department's high level principles, while allowing flexibility in execution that respects the unique missions and needs of the individual Services. This is a long-term strategy for the DoD and for the MHS. We have experience in setting standards for safety, quality and superior outcomes in some of the harshest environments around the globe. We have the people with the skills and experience to light the way.

One of the key findings from the MHS Review was that no single set of metrics was used across the enterprise to monitor performance in access, quality and safety. On January 1, 2015, the Defense Health Agency, to better support the enterprise and the Services' paths toward greater excellence as an HRO, established the MHS Partnership for Improvement (P4I) system in collaboration with the Military Services, providing a set of common measures across both direct care and purchased care settings that included clear performance goals with standardized metrics.

We also continue to invest in one of the cornerstones of our efforts to improve access, quality, safety and health care outcomes. One hundred percent of our Patient-Centered Medical Home (PCMH) is now fully accredited by the National Committee on Quality Assurance. We have introduced a 24/7 nurse advice line that is integrated with the PCMH, and provides an additional, round-the-clock, resource for beneficiaries to connect with medical professionals or receive medical appointments when needed.

Responsible Stewards of Taxpayer Resources

Underpinning our overarching strategy are our efforts to modernize MHS management with an enterprise focus. The establishment of the DHA is central to this effort. Within twelve months of standing up, we had successfully established ten shared services within the agency: the TRICARE Health Plan, pharmacy programs, medical education and training, medical

research and development, health information technology, facility planning, public health, medical logistics, acquisition, and budget and resource management.

Although the stand-up of the shared services were at differing levels of maturity at the one-year mark, we were able to exceed our own milestones for achieving efficiencies and realizing savings. In FY2014, we estimated that the organization was able to achieve \$236 million in savings, implementing a number of actions identified through a rigorous and replicable business case analysis and business process reengineering. Each Shared Service is responsible for tracking and reporting on savings at a detailed level, with regular reviews of progress toward the identified goals. Some examples of initiatives that are driving savings include the legislatively-directed transition of prescription drugs from retail venues to either home delivery or MTF outlets; standardization of medical supplies and equipment; greater use of eCommerce for medical supply purchases; contract consolidation; and pharmaceutical purchasing consolidation and standardization.

But the DHA's establishment is not merely about savings and efficiency. The DHA is also designated as a Combat Support Agency – an important designation that carries with it a process by which the agency is accountable to the Chairman, Joint Chiefs of Staff and the combatant commanders regarding the performance of the agency in meeting their needs. Within each of the Shared Services there is exciting, cutting-edge work underway to ensure and sustain the medical readiness of the total force and readiness of our medical force. I want to touch upon some noteworthy accomplishments made in FY 2014.

The Education and Training Directorate reached initial operating capability (IOC) on August 10, 2014 and has already implemented a one-stop learning management system, which will serve as a new home for online tools and a resource to acquire joint executive skills and

knowledge. The Education and Training Directorate has also built strategic partnerships with the Medical Evaluation and Treatment Clinic (METC) at Walter Reed National Military Medical Center. As it moves toward full operational capability (FOC), the Directorate is in the process of building a military medical education consortium to serve as a network of critical partnerships between civilian and military institutions in support of education and training. Furthermore, this Shared Service is working to advance cutting-edge modeling and simulation technology to replace live animals and support medical training requirements. We have consolidated 23 separate learning management systems into a single, consolidated learning management system in support of three Services.

The Healthcare Operations Directorate has continued to improve delivery models by launching such initiatives as ePrescribing with civilian providers and the Nurse Advice Line – a 24/7 call center that provides instant access to a team of registered nurses who can answer urgent healthcare questions from beneficiaries. Healthcare Operations has also enhanced support to warfighters by providing a central point for coordinating operations across the DHA for efforts such as the Ebola Task Force and supporting development of the Director's Mission Essential Tasks.

The Research, Development and Acquisition Directorate (RDA), in coordination with the Services, created an advanced development capability for Defense Health Program R&D, allowing the MHS to take groundbreaking science and technology achievements and translate them into clinical care and operational use. The execution of the Advanced Development Program will deliver over 20 new products/clinical practice guidelines in the next five years, which include devices to slow or stop non-compressible hemorrhage; eye-tracking systems that can measure cognitive issues related to TBI; and changes to clinical practice across the

continuum of care in the area of wound healing. With a core annual investment of over \$600M, the RDA program is the largest medical research program in DoD and will allow the MHS to continue to develop innovative technologies in areas of trauma care and mental health that will allow wounded warriors to return to the battlefield and lead rich, fulfilling lives post-combat. We greatly appreciate Congress' strong advocacy and support for comprehensive military medical research – support that is particularly important to sustain during a period of time in which the value of research in the areas of infectious disease threats has been so prominent.

The Health Information Technology (HIT) Directorate manages IT shared services and is the oversight authority for IT-related expenditures, promoting greater accountability. We have integrated three parallel, Service-managed health information technology offices into a single, consolidated operation. In 18 months, HIT has helped the Defense Health Headquarters consolidate around a single email and calendar sharing system. Additionally, the Directorate has established a plan to develop and implement a standard infrastructure to support the Electronic Health Record (EHR) Modernization in support of the OUSD(AT&L) EHR acquisition. This infrastructure includes seamlessly integrated Wide, Local, and Wireless Networks; a secure access and authentication capability; a desktop design standardization service; a centrally managed and integrated computing infrastructure; and a consolidated MHS enterprise IT service desk. Furthermore, DHA HIT is actively engaged in collaborative pre-planning to fulfill MHS implementation, training and sustainment needs once a new DoD EHR solution has been acquired.

In FY2014, the Business Operations Directorate earned an unqualified audit opinion for the fifth straight year for purchased care. The DHA has begun the FY2015 DHP audit

examination of the entire program and will shift to full audit in FY2016. In the area of medical logistics, this Directorate partnered with DLA and MHS clinicians to further standardize medical supplies and equipment, and leveraged buying power to obtain lower product costs for more than 1,400 products. As we move towards FOC, this Directorate will also integrate business and financial planning to execute a more effective Program Objective Memorandum (POM) '17 and drive increased commonality across the Services in how they account for purchases. Additionally, the establishment of Health Facilities as a shared service has provided the Department with the ability to streamline our business process for assessing, resourcing, outfitting and maintaining our global medical infrastructure.

Over the past several years, the MHS has introduced a series of measures that have cumulatively reduced government expenditures by billions of dollars. Through these efforts, we have decreased administrative overhead at our headquarters (and will further streamline our headquarters operations in the coming years); we are increasing our joint purchasing of medical supplies and equipment; the establishment of federal ceiling prices for drugs has saved almost \$800 million annually as well as encouraging the use of the less costly mail order pharmacy. We have aligned our payments to hospitals for outpatient services with Medicare, which were fully implemented in FY 2014. And, our ongoing efforts to combat fraud will continue to yield savings based on targeting improper billings by civilian providers.

An essential part of responsible financial stewardship is the management of TRICARE, our military health benefit. Medical cost growth has slowed relative to its meteoric rise in the past decade. Yet, costs continue to rise in ways that threaten other priorities. Within DoD, however, every dollar spent in healthcare is a dollar not spent on modernizing, training or equipping the force. To this end, we again proposed a series of modest efforts to re-balance the

health cost shares borne by the government and the beneficiaries we serve. These proposals are offered after we have instituted a number of internal reforms to improve our own efficiency. And, finally, these proposals still ensure the Department will continue to provide one of the most comprehensive health benefits offered by any employer in this country.

The Department's FY 2016 TRICARE proposal maintains the core objectives of the President's Budget FY 2015 Consolidated TRICARE plan: current active duty service members continue to receive health care free of charge; Active Duty Family Members (ADFM)s are given the option for free health care regardless of assignment location, but with financial incentives to obtain the most cost effective care; and retirees and their dependents will continue to share in their health care costs, with new incentives to obtain the most cost effective care.

We have made adjustments in our proposal from PB FY 2015 that address shortcomings noted by the beneficiary organizations both in their testimony and in their discussions with us. First, we ensured that Active Duty Family Members were held harmless from additional out-of-pocket costs based on their geographic assignment. Second, this proposal addresses the Emergency Department (ED) overutilization and proposes a copay for inappropriate ED use. This latter shortcoming is particularly important to correct as TRICARE beneficiaries use hospital EDs, the most costly method of delivering care, at twice the rate of their civilian counterparts.

The 2016 proposal introduces two care management alternatives within the consolidated TRICARE plan: Care managed by a Primary Care Manager (PCM) at the MTF (PCM Managed) or Self-Managed Care. ADFMs have the option to select between the two alternatives.

ADFM's who choose PCM Managed care will be enrolled in an MTF, and when they require care that the MTF cannot provide, the PCM will issue a referral for that care. This option results in no network copays for the ADFM.

ADFM's who choose Self-Managed care can choose, on a case-by-case basis, to receive free MTF care, pay modest copays for network care, or they can pay a percentage of the cost for out-of-network care after paying an annual deductible. ADFM's who live remotely from an MTF must Self-Manage their care, and they will be exempt from copays, cost shares and deductibles.

In order to address the second shortcoming from the PB FY 2015 plan – decrease misuse of ED care – new fees will apply for all ED care that does not constitute a real emergency.

At the same time as DoD TRICARE proposals are being put forward in this budget, the Department is also prepared to release updated TRICARE Requests for Proposal. The Department plans to reduce the number of contracts from three to two, and we have included other refinements that will help support our efforts to continuously improve quality, safety and contractor performance. A timely release of the RFP and competitive acquisition process will provide the Department with the opportunity to both improve service and reduce administrative costs as compared to the existing contract structure.

We consider the comprehensive benefits we offer supports our objectives of ensuring a medically ready force and ready medical force. It offers an important tool in the recruitment and retention of a skilled volunteer force. And this proposal upholds our commitment to all military beneficiaries, and to the readiness of our armed forces – a commitment to maintain one of the best health care benefits in the country, to protect the most vulnerable members of our population from cost increases, to invest in both health care and health, for the greatest military force in the world, both now and for generations to come.

In addition to presenting you with next year's budget and proposals, I want to address the threats faced by sequestration and I want to highlight what the Assistant Secretary of Defense has promised cannot and will not be compromised -- promises he has made in multiple settings and every year in which sequestration is a threat.

First, our commitment to quality of care is sacrosanct. We will not allow quality to suffer or place any patient at risk. Period.

The Department will also ensure that the care provided to our wounded warriors is maintained. Our focus on their medical treatment and rehabilitation will continue. It is our goal to make sure that from the wounded warrior's perspective, they should see no difference in the care they receive before, during or after sequestration. And we will sustain our close collaboration with other federal and private sector partners, including the VA.

Finally, to the greatest extent possible, we will work to sustain access to our military hospitals and clinics for our service members, their families, retirees and their families. In patient care areas, nearly 40% of our medical staff in military hospitals and clinics is civilian. Civilian hiring freezes can have immediate effects on both access to care and to staff morale. With some exceptions, civilians who remain in place face potential cost reduction measures -- an impact most keenly felt by those valued members of our workforce with lower incomes. These measures could also impact access to care -- perhaps causing inconvenience and dissatisfaction among those patients accustomed to getting their care in military treatment facilities. Furthermore, patients who formerly received care in a military treatment facility may need to obtain care in the private sector at an increased cost to the Department.

But there are other, significant, negative long-term effects on the overall Military Health System. By directing all resources to the provision of patient care under sequestration, we will have less funding to address medical facility maintenance and the needed restoration and modernization projects. This will negatively affect the healthcare environment and potentially drive substantial bills for facility maintenance in the future. While we will continue to fund projects that directly affect patient safety or that are emergent in nature, we will see a degradation in the aesthetic quality and functionality of our medical facilities. This can impact the morale of both the medical staff and the patients and can greatly degrade the patient's experience of healthcare within the military health system. Many of our facilities are older and require substantial upkeep. To delay these medical facility projects only exacerbates the problem and ultimately the medical staff – and more concerning, the patients – suffer the consequences. This is not a sustainable strategy.

In order to continue our health care operations, we will dramatically reduce our investment in equipment. This means equipment will be used longer and will require more maintenance – increasing the potential for equipment breakdowns and increasing maintenance costs. At some point, equipment becomes obsolete and cannot be repaired any longer.

Research and Development projects will also suffer. Congressionally directed research projects are not protected under sequestration. We will protect our core research projects that are directed towards wounded warrior issues. Other core research projects may need to be reduced so that we can “make ends meet” in the delivery of health care. This means that important, promising research projects could be slowed or stopped altogether.

The long-term effects on our ability to recruit and retain the best military and civilian medical experts this country can offer is also at risk. Sustaining a high quality military health system for all of our beneficiaries is our mission and a personal, moral obligation.

We understand DoD must do its part in addressing the nation's budget concerns; however, it must be done in a responsible and judicious manner. The path forced upon us through sequestration is neither. I remain hopeful that Congress can still reach an agreement that will allow us to shape our future in a more careful, deliberate and rationale manner.

The DHA is a strategic enabler to the Department in achieving savings and efficiencies in a responsible, business-focused manner. By building a management structure with an enterprise focus, we are ensuring a medically ready force and ready medical force are ready for any contingency for which they are called to serve. And we are seeing results. The DHA is already exceeding projected savings in just our first year of operations.

I am honored to represent, on behalf of the ASD(HA), the men and women of the Military Health System before you today, and I look forward to answering any questions you may have.

LTG HOROHO OPENING STATEMENT

Mr. FRELINGHUYSEN. Thank you very much, General Robb.

General Horoho, good morning. Thank you for being with us.

General HOROHO. Good morning, sir. Chairman Frelinghuysen, Ranking Member Visclosky, distinguished members of the subcommittee, thank you for this opportunity to tell the Army Medicine story. On behalf of the dedicated soldiers, civilians that make up Army Medicine, I extend our appreciation to Congress for your faithful support.

I want to start by acknowledging America's sons and daughters who are in harm's way. Over 141,000 soldiers are deployed or forward stationed. Army Medicine has nearly 2,500 civilians and soldiers deployed around the globe.

This has been a year of unprecedented challenges and accomplishments. Army Medicine trained every soldier deploying to West Africa to ensure their safety. Medical research teams from Medical Research and Materiel Command (MRMC) serving with our inter-agency partners spearheaded Ebola efforts on the ground in Liberia and in the lab by developing groundbreaking vaccines. Our U.S. treatment facilities were certified as Ebola treatment facilities by the CDC. We made tremendous strides in transformation to a system for health on our journey to high reliable organization, a model for safety and healthcare delivery.

Our soldiers' health readiness remains our number one priority. We added combat power back to the force by reducing the number of soldiers who were not available due to health reasons. We also significantly increased medical and dental readiness. We are enhancing health readiness by weaving the performance triad into the DNA of our Army. The MHS review validated our pathway to improve safety and quality care for our soldiers, family members, and retirees. The review showed we are either above or comparable to the best healthcare systems in our Nation.

The latest U.S. News & World Report Best Graduate School rankings validate using our bricks-and-mortar military treatment facilities as training platforms for our clinicians and administrators. Our certified nurse anesthetist program is number 1 in the Nation, our physical therapy program is number 5 in the Nation, our Baylor program for administration is number 7 in the Nation, and our physician assistant program is number 11 in the Nation.

Our programs and initiatives that contribute to our success are further outlined in our written testimony. I would like to take the balance of my time to discuss two major threats facing Army Medicine today.

An ever-changing security environment demands that Army Medicine vigilantly maintain a medically ready force and a ready medical force. The first threat is viewing Army Medicine through the lens of a civilian healthcare system. We are so much more than that. We are national leaders in medicine, dentistry, research, education, training, and public health. These are all intimately linked to soldiers' and our providers' deployment readiness. Our hospitals are our health readiness platforms. This crucial link to readiness sets us apart from the civilian healthcare system.

Army Medicine provided the majority of the operational medicine and combat casualty care in Iraq and Afghanistan that led to a 91 percent survivability rate for our wounded servicemembers. The NATO Medical Center of Excellence adopted our key areas from our 2011 Health Service Support Assessment as best practices and lessons learned.

These invaluable battlefield experience permeate our education and training platforms at Uniformed Service University, AMEDD Center and School, the Medical Education Training Center, and in our medical centers. Any radical departure from our combat-tested system would degrade readiness in an environment where the next deployment could be tomorrow.

The second threat to Army Medicine is the return of sequestration. Sequestration would have a significant detrimental impact on our patients, our families, and our medical team. Devastating reductions to both civilian personnel and military end strength would impact every Army Medicine program. Sequestration would cause the MEDCOM to close in-patient and ambulatory surgical centers and a number of our military treatment facilities, jeopardizing our ready and deployable medical force. Reductions driven by sequestration would be devastating and very different than our current rightsizing to correctly align our medical capabilities.

Our valued civilian employees were extremely sensitive to the furloughs and the hiring freeze in 2013. Two years later, we still have not been able to replace all of these highly skilled employees.

Servicemembers go into battle confident because Army Medicine, in concert with our sister Services, goes with them. For the past 13 years, when wounded servicemembers on the battlefield heard the rotors of a medevac helicopter, they believed they were going to survive. We must protect that system that gave them that confidence.

I want to thank my partners in DOD, the VA, and my colleagues here on the panel, and Congress for your continued support. The Army Medicine team is proudly serving to heal and very honored to serve. Thank you.

[The written statement of Lieutenant General Horoho follows:]

RECORD VERSION

STATEMENT BY
LIEUTENANT GENERAL PATRICIA D. HOROHO
THE SURGEON GENERAL
UNITED STATES ARMY

BEFORE THE

HOUSE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON DEFENSE

FIRST SESSION, 114TH CONGRESS

ON DEFENSE HEALTH PROGRAM

APRIL 14, 2015

NOT FOR PUBLICATION UNTIL RELEASED BY THE
HOUSE COMMITTEE ON APPROPRIATIONS

Chairman Rogers, Ranking Member Lowey, and distinguished members of the subcommittee, thank you for the opportunity to tell the Army Medicine story and highlight the incredible work of the dedicated men and women with whom I am truly honored to serve.

I would like to start by acknowledging America's sons and daughters who are still in harm's way – today nine of ten Active Army and two Army National Guard division headquarters are committed in support of Combatant Commanders across the globe. More than 141,000 Soldiers are deployed or forward stationed and 18,000 Reserve Soldiers are mobilized, sacrificing for our freedom. And to the thousands of Army Medicine personnel currently deployed in support of global engagements – they and their Families are in my thoughts, making me proud to serve as The Surgeon General of the Army. In the past we spoke of interwar periods, a time to recover, to take a knee. I do not see this recovery period on the horizon...as reflected in our current deployment levels, the op-tempo around the world is accelerating with an ever changing security environment.

Since 1775, America's medical personnel have stood shoulder-to-shoulder with our fighting troops in harm's way, received them at home when they returned, and worked tirelessly to restore their health, both mental and physical. Our world-class combat casualty care, which extends from the medic on the front lines to our CONUS-based medical centers, has resulted in the highest survivability rates in the history of modern warfare. Throughout the most challenging times our Nation has faced, our Soldiers remained confident and mission-focused, knowing when they looked over their shoulder, an Army Medic would be following in their footsteps. While the wounds of war have been ours to mend and heal, our extraordinarily talented medical force also has cared for the non-combat injuries and illnesses of our Soldiers and their Families, in theater as well as at home.

Army Medicine is comprised of a committed team of over 150,000 Active Duty, Reserve Component, Civilian and Contract professionals who serve in over five continents, across 18 time zones, providing cutting edge medical readiness and healthcare throughout the world. Army medicine is so much more than a civilian healthcare system; we are national leaders in medicine, dentistry, medical research, education, and training, and public health. It is an honor to lead this outstanding enterprise, earning the trust and caring honorably and compassionately for our 3.9 million Soldiers, Family Members, and Retirees across the globe.

Today, Army Medicine provides high quality, safe healthcare, while working tirelessly to optimize the readiness, resilience, and performance of our Forces. We continue to focus our efforts across our enduring four priorities: deployment medicine and casualty care; readiness and health of the force; a ready and deployable medical force; and the health of Families and Retirees. These four priorities are engrained in our DNA and drive all that we do; they span the entire spectrum of health readiness delivery from medics saving lives on the battlefield to researchers discovering new vaccinations in our labs across the globe.

Over the last few years, we have made great strides in improving the health readiness of the force, leading the Army's cultural change towards a more ready and resilient Soldier. This success was achieved by promoting the Performance Triad, comprised of healthy sleep, activity, and nutrition, and increasing the impact on our readiness touch points to include embedded providers, Soldier Centered Medical Homes, dental clinics, and garrison medical facilities. Our medical force has remained ready and deployable, leveraging lessons learned in theater to improve care in garrison, and using evidenced-based practice and cutting edge research to improve care delivered far forward.

Clearly, now is not the time to waver in the support we provide to our Nation's heroes. We not only have to keep the faith and provide for those who are still recovering from the visible and invisible wounds of war, but we also need to remain trained and ready to respond to emerging crises around the world, from Ebola to the Ukraine. The increasing instability across the globe demands that we ensure the health readiness of our Soldiers while sustaining our ready medical force. Our Military Treatment Facilities (MTFs) are vital to this as they are our Health Readiness and Training platforms where our medical teams work together to hone their critical wartime skills and remain ever ready.

These complex and uncertain times require that we continue our unwavering dedication to our enduring missions, transform from a healthcare system to a System for Health, persist in our efforts to demonstrate the characteristics and behaviors of a high reliability organization, and lead the way with innovative research, diplomacy, and collaboration. However, all the lessons learned and progress we have made as a result of the last 13 plus years of persistent conflict and our focused efforts at continuous improvement along our four priorities are at risk of being slowed, halted, and reversed, given an unstable funding environment and the detrimental second- and third-order effects of sequestration.

Consequences of Sequestration

There is no doubt sequestration has had and will continue to have a significant negative impact on the Army Medical Command (MEDCOM). This impact is felt particularly hard with our dedicated and absolutely essential civilian staff. While many think of MEDCOM as green suit healthcare providers, the reality is civilian employees comprise 60% of the MEDCOM workforce. They are the backbone, stability, and glue of our system.

Sequestration in FY13, combined with the furlough and hiring freeze, had a profound impact on MEDCOM. Our valued civilian employees were extremely sensitive to the tumult and uncertainty caused by sequestration. Many high performing and valued civilian employees experienced burn out, lost faith, and left the MEDCOM for employment with organizations that were not affected by sequestration, such as the VA. The remaining workforce was challenged to absorb the work of departed personnel. In some cases, reduced staffing led to a negative cycle of decreased access for some beneficiaries resulting in a corresponding reduction in patient loyalty. In addition, the hiring freeze instituted from January through December 2013 inhibited our ability to replace the employees who departed the MEDCOM. Despite aggressive hiring actions since 2014, MEDCOM has not yet regained the lost civilian personnel. As of January 2015, we continue to have a shortfall of over 1,800 civilians.

Sequestration would force us to suspend all discretionary spending, including capital equipment, facility restoration & modernization, sustainment and procurement. Additionally, this would place significant constraints on all non-healthcare delivery spending, such as training, education and public health. Every effort would be made to protect primary care, behavioral health (BH), specialty care, surgical capabilities, inpatient services, and healthcare delivery at our largest MTFs, in addition to world-wide public health/veterinary services (food and water source inspections) to protect required go-to-war clinical capabilities. Based on our experience from the 2013 Sequester, we expect to lose an additional 3,000 civilians across the command.

With a reduced civilian workforce, sequestration will also lead to reductions in military end-strength in the MEDCOM. The Army is preparing to drawdown to an Active Duty end strength of 450,000 Soldiers that will result in a reduction of more than 800 active duty MEDCOM personnel. If sequestration returns, the Army may be compelled to reduce active duty end-strength to 420,000, leading to an anticipated reduction of greater than 3,000 active duty MEDCOM personnel.

We will not compromise the safety of our patients as a result of sequestration; however, the combination of military and civilian reductions will cause the MEDCOM to close inpatient and ambulatory surgical centers at a number of MTFs. This would severely impact our ability to support the health readiness of our Soldiers, impact the readiness of our providers, and break trust with our Soldiers, Families, and Retirees, by forcing them to the TRICARE network.

I have grave concerns essential programs for rebuilding our Soldiers after over a decade of conflict will take the brunt of these cuts. The impacts will be visible in decreased resources to sustain initiatives in BH and Traumatic Brain Injury (TBI); a decrease in access to care; and extended appointment wait times for our Soldiers, Families, and Retirees at our health readiness platforms. MEDCOM would reduce research and training programs throughout the Command to “must-fund” levels. This will significantly reduce progress that has been made in medical programs over the last few years both in the areas of research and training of the force.

With this said, we have every intention to work diligently to maintain our progress, and act as faithful stewards of all that we are provided.

Unwavering Dedication to Enduring Missions

Even as the Army shifts from years of continuous war, ongoing operations demand that Army Medicine sustains the enduring missions essential to the health and wellness of our Soldiers. These enduring missions include Warrior Care, BH, Tele-health, TBI, the role of women in the Army, and Sexual Harassment / Assault Response and Prevention (SHARP). These programs are the backbone for restoring and then optimizing the health readiness of our Soldiers and preparing them for future global engagements or transition to their post-Army careers.

Warrior Care

Caring for our wounded, ill, and injured is our highest calling. We must continue to ensure they are provided the best healthcare possible to remain on active duty or to successfully transition out of military service back to Hometown, USA. Warrior Care is an enduring mission for the Army and Army Medicine. It remains fully funded despite budget turmoil.

Over the past seven years, there has been significant investment in the development of the Warrior Care and Transition Program (WCTP). WCTP personnel are committed to providing the best care and treatment for every wounded, ill, or injured Soldier. As of February, 2015, a total of 66,113 Soldiers have completed the WCTP with 29,492 of these Soldiers

returning back to the force. This unprecedented 45% return-to-duty rate is a direct result of the dedication of our Wounded Warrior cadre, clinical providers, and support staff.

From February 2014 through February 2015, the overall Wounded Warrior population decreased by more than 40%, from 7,008 to 3,996. This is largely attributed to the drawdown of forces in Afghanistan. The Warrior Transition Command (WTC) conducts an analysis twice yearly to ensure that Warrior Transition Units (WTU) are properly structured to provide optimal care for our wounded, ill, and injured Soldiers. As the wounded, ill and injured population continues to decline, we will make recommendations to the Army to right size the WCTP footprint to meet the population needs while still sustaining the high quality care we provide today, regardless of the population.

As a result of the analysis completed during FY13, The WTC successfully inactivated five WTUs and all nine Community Based WTUs (CBWTU) in FY14. Additionally, 11 Community Care Units (CCUs) were activated. CCUs improve care for assigned Soldiers, provide better access to resources on installations, and reduce delays in care. Soldiers re-assigned to a CCU from an inactivating CBWTU maintained continuity of care with their same primary care team within their local community. In addition, no Soldiers receiving care within the WCTP had to move or PCS due to an inactivating or activating CCU. As of February 1, 2015, a total of 677 Soldiers (17% of the total population) were assigned to a CCU receiving care in their home communities.

The WCTP remains committed to returning Soldiers to duty. However, when Soldiers are unable to return to duty, we are dedicated to supporting a seamless transition to ensure their continued success. Approximately 60% of Soldiers in the WTUs are enrolled in the Integrated Disability Evaluation System (IDES). MEDCOM, in collaboration with the VA, continues to improve guidance to increase standardization and reduce variation within the Medical Evaluation Board (MEB) phase of the IDES process. In 2014, Army Medicine launched the Medical Evaluation Board Remote Operating Centers (MEBROCs) to increase IDES enterprise capacity. As a result of this monumental effort, the total Army average for the MEB Phase has remained below the 100-day active duty and a 140 day Reserve Component standard across all components for 16 consecutive months. Additionally, the efficiencies created by the IDES Service Line led to an overall savings of \$12.8M in 2014. These improvements not only benefit

our wounded, injured, or ill Soldiers and their Families, but also maintain the overall medical readiness of our total force enabling the Army to fully support future global engagements.

As the WCTP shifts to aiding a population more likely to be ill or injured rather than wounded, our Cadre training is continuously refined to meet the needs of the Soldier. The WTC recently finalized a draft Army Regulation as a single source document which consolidated all existing WCTP policies. The draft Army Regulation is being staffed and will be released in the coming months. A newly created WCTP Soldier and Leader Guide offers practical guidance to facilitate the recovery and transition of Soldiers and their Families. The Army Medical Department Center & School (AMEDDC&S), in coordination with the WTC, provides a comprehensive, blended-learning training program to better prepare Soldiers from all Military Occupational Specialties (MOSS) to serve as cadre in the WTUs. The training program orients new cadre and nurse case managers to this very unique environment where physical injuries, PTSD and other BH issues, and Family concerns are commonplace.

Career and Education Readiness activities are the centerpiece of an effective transition from the Army for Wounded, Ill and Injured Soldiers. WTC's coordination of enhanced WTU vocational, career opportunities and programs in coordination with Army G-1's Soldier for Life (SFL) Transition Assistance Program (TAP) and other external resources, is successfully preparing Soldiers for post-Army employment, education, and independent living services. SFL TAP provides robust transition assistance as part of the new Veterans Opportunity to Work initiative which is available to all eligible Soldiers. Soldiers complete a 12 month post-transition budget, identify any skill gaps during a Military Occupational Specialty crosswalk with civilian occupations, and complete career assessments in order to effectively make future career decisions.

The Soldier will always be the center of gravity for our Army and Army Medicine. The optimized WCTP will remain an enduring program that helps fulfill the Army's commitment to never leave a fallen comrade.

Behavioral Health (BH)

The longest period of conflict in our Nation's history has undeniably inflicted physical, mental and emotional wounds to the men and women serving in the Army—and to their Families. The majority of our Soldiers have been extremely resilient during this period and are thriving. However, Army Medicine is keenly aware of the unique stressors facing Soldiers and

Families today, and continues to address these issues on several fronts. Taking care of our own—mentally, emotionally, and physically—is the foundation of the Army's culture and ethos, and is unquestionably an enduring mission.

Army Medicine anticipates sustained growth in BH care requirements. In FY15, the Army will resource an estimated \$350M to support BH and sustained implementation of BH initiatives. These funds specifically support the 11 recognized enterprise BH Service Line (BHSL) clinical programs under each MTF's standardized Department of Behavioral Health.

The Army's continued emphasis to extend BH care to Soldiers and Families and decrease stigma is likely to increase the use of BH care. The readiness of the force is contingent upon providing access to high-quality BH care to Soldiers and Family Members. The Army's BH System of Care (BHSOC) standardizes and integrates the best clinical practices into a single, interconnected system. It supports the readiness of the force by promoting health, identifying BH issues early, delivering evidence-based treatment, and leveraging all resources in the Army community to decrease risk for suicide and other adverse events.

The Army screens Soldiers for BH conditions, including PTSD, at several points in the Force Generation cycle. The Army's screening program includes assessments before and after every deployment and annually, exceeding the DoD requirements. The Army also screens for BH conditions at primary care visits and has placed BH professionals in Patient Centered Medical Homes (PCMHs) to expedite consultation and treatment. As MEDCOM expanded access to the BHSOC, utilization of outpatient BH increased from approximately 900,000 encounters in FY07 to over 2.1 million in FY14. Soldiers with BH conditions used outpatient BHcare more frequently to address BH issues and fewer acute crises have occurred. Soldiers required 173,000 inpatient BH bed-days in 2012, but only 112,000 in 2014. We are also confident the BHSOC, along with the Army's Suicide Prevention Programs, contributed to the decrease in suicides from 2012 to 2014.

The Army is removing the stigma associated with seeking BH care with programs such as Embedded BH (EBH) that provides targeted care in close proximity to Soldiers' unit areas and in close coordination with unit leaders. As of January 2015, Army Medicine has 49 EBH teams, including 10 that were established in 2014. Of these, 36 directly support Brigade Combat Teams (BCTs), while the remaining 13 support non-BCT operational units including military police and combat engineers. By FY16, we expect to have 65 EBH teams operational.

In 2014, Army Medicine implemented the BH Data Portal (BHDP) at every MTF. BHDP is a web-based application that gathers standardized, automated clinical data from Soldiers receiving care for BH conditions. It tracks patient outcomes, satisfaction, and risk factors to improve program assessment and treatment efficacy. This innovative program was identified by the DoD as a best practice and selected to be implemented across the other Services. Additionally, it was cited in the August 2014 President's executive actions on improving BH services throughout the DoD.

We continue to use complementary and alternative therapies to decrease the use of psychotropic drugs. The use of psychotropic drugs in Soldiers is trending down. From 2012 to 2014, the rate of prescribed psychotropic drug use decreased from 23.15% to 20.7%. This is a direct result of our BH support programs and management of these conditions through evidence based non-medication regimens.

Due to the significant national shortage of child and adolescent BH providers, traditional models of care have been unsuccessful in delivering services to Family Members. In response, Army Medicine implemented the Child and Family Behavioral Health System (CAFBHS) in March 2014, a new and innovative method to deliver BH care to Army Families. The CAFBHS more efficiently delivers care by consulting and collaborating with primary care teams in the PCMH, placing BH providers in on-post schools, and using regional tele-consultation to increase access to BH care. In addition, primary care managers are trained in the screening and treatment of common BH disorders within the PCMH. There are currently 150 BH providers working in the CAFBHS, including 50 providers in 46 schools at 8 installations. Over the next two years, CAFBHS will increase to 381 BH providers supporting 107 schools across 32 installations delivering comprehensive BH support to Army Families.

Tele-health

The expansion of Tele-health (TH) capability is a vehicle for Army Medicine to expand our influence into the Lifespace of our Soldiers, Families, Retirees, and Civilians. TH is the future of medicine and a core clinical capability of Army Medicine that can increase access to care, reduce cost, and alleviate quality and readiness challenges. Army TH currently provides clinical services across the largest geographic area of any TH system in the world including 18 time zones in over 30 countries and territories across all five Regional Medical Commands

(RMCs) and in active theaters of operation. Army TH accounts for over 95% of all clinical TH encounters in the DoD.

During FYs 08-14, Army TH provided over 150,000 provider-patient encounters and provider-to-provider consultations in garrison and operational environments across 30 specialties. Tele-BH (TBH) currently accounts for 88% of total TH volume in garrison and 58% in the operational environment. Army Medicine currently executes approximately \$21 million per year on clinical uses of TH such as TBH. Additionally, the Army developed and uses mobile health applications for beneficiaries with TBI and is expanding its use of educational systems as a force multiplier for Pain Management.

In FY15, Army Medicine is introducing a three-year expansion plan for TH to create a Connected, Consistent Patient Experience (CCPE). The CCPE will create a 360° care continuum around patients using advanced TH modalities. The core elements of the CCPE include establishing a Virtual PCMH, optimizing provider-to-provider tele-consultations systems, expanding clinical video-teleconferencing systems to new specialties, piloting remote health monitoring, and continuing to mature Army TH in operational environments.

Traumatic Brain Injury

Another enduring mission is our focus on providing our Soldiers and other beneficiaries the very best TBI care in the Nation. From January 1, 2000, through June 2014, approximately 307,283 Service Members have been diagnosed with TBI, with 253,350 (82%) of these injuries being classified as mild TBI (mTBI), or concussions. Since 2000, Army Soldiers comprise approximately 58% of all DoD TBI cases, making this issue a clear priority for Army Medicine. The number of Soldiers diagnosed with concussions has steadily increased among all Army components, with the sharp increases beginning in 2006 attributable, in part, to screening efforts and other early detection initiatives.

The Army TBI Program continues to build on innovations, partnerships, and research to better prevent, diagnose, treat and track mTBI and concussion as we transition from a conflict-focused to garrison-focused program. This program focuses on five essential elements: A mandatory education component for all Army personnel; one worldwide standard of care for assessing and treating Soldiers who may have been exposed to a potentially concussive event; an expansive garrison clinical care program to meet the medical and rehabilitation needs of patients with all severities of TBI; baseline neurocognitive testing of all deploying Soldiers; and an

aggressive research program to advance mTBI and concussion diagnosis and treatment. Through collaborations with the National Football League and the National Collegiate Athletic Association, the Army is increasing awareness, reducing stigma associated with seeking care, and changing the culture regarding brain injuries on the battlefield and at home.

The Army accepted a proffer from the Intrepid Fallen Heroes Fund to build six centers devoted to advanced treatment of complex mTBI. These Intrepid Spirit clinics will provide advanced integrative care and intensive outpatient programs for patients with multiple diagnoses (to include TBI, chronic pain, and BH conditions). Intrepid Spirit Fort Campbell opened on September 8, 2014, and facilities at Fort Hood and Fort Bragg are expected to be completed by November 2015. Army Intrepid Spirit Clinics are programmed for Joint Base Lewis-McChord and Forts Carson and Bliss.

The Army manages the largest portfolio of TBI-related research in the world, with an investment of over \$800 million since 2007. For FY15, the total expenditures are estimated at \$96M, with the bulk of TBI funding from DHP Congressional Special Interest (CSI) funding. As of June 2014, over 590 research projects have been awarded or are pending award. Research is ongoing across the continuum of care from prevention, early screening and identification, to better diagnostic tools, imaging, and treatment options, to rehabilitation and return to duty determinations. From a treatment perspective, the Medical Research and Materiel Command is dedicated to developing FDA-approved therapies designed to assess and treat the injured brain. These innovations will ensure those without injury can stay in the fight, while those who are diagnosed are effectively treated to preserve their future health.

Additionally, we are leveraging the strength of multiple agencies, including the Defense Centers of Excellence for Psychological Health and TBI (DCoE), the Defense and Veterans Brain Injury Center (DVBIC), our sister Services and the VA to translate research findings into the latest guidelines, products, and technologies.

Women in the Army

Women have played a key role in America's military efforts since the Revolutionary War. Time and time again they have proved their value in all operational and garrison environments. From the medic on the battlefield, to the civil affairs officer, women in uniform have been an irreplaceable asset to our Nation. Advances in medical care and research that

enhance the health, performance and readiness of female Soldiers and Family Members are improving the readiness of our Total Army Family.

The Army continues to open previously closed positions and occupational specialties to women. Over the past 27 months, the Army opened six previously closed MOSs and over 55,000 positions across all Army components. Army Medicine is providing direct support to the Soldier 2020 initiative led by the US Army Training and Doctrine Command (TRADOC) and Army G-1 to identify, select, and train the best-qualified Soldiers for each MOS.

The US Army Research Institute of Environmental Medicine (USARIEM) supports TRADOC in conducting the “Physical Demands Study” to establish occupational-specific accession standards for the combat arms specialties currently closed to women. The goal is to develop valid, safe, legally defensible physical performance tests that predict a Soldier’s ability to perform the critical, physically demanding occupational tasks of currently closed MOSs. The Army’s scientific approach for evaluating and validating MOS-specific performance standards aids leadership in selecting and training Soldiers, regardless of gender, to safely perform the physically demanding tasks of their Army occupation. This approach will ensure that standards are maintained and will give every Soldier the opportunity to serve in positions where he or she is capable of performing to standard.

In July of 2011, I had the distinct honor to deploy in support of the International Security Assistance Force in Afghanistan to examine healthcare in the Central Command Area of Responsibility. Specifically, the team focused on readiness, resilience, MEDEVAC enhancements, medical information technology, education and training, and enhancements to Body Armor. Recently, the lessons learned were adopted by 15 NATO partners at the Military Medicine World Conference in Budapest, Hungary.

Our work on the ground served as the foundation for the Women’s Health recommendations in the Health Services Support Assessment in May 2012, the establishment of the Women’s Health Task Force, and the creation of 26 tasks focused on supporting female Soldiers in austere deployed environments. We established standardized education for healthcare providers and treatment algorithms throughout theater to avoid unwarranted movement of women inside a combat zone for care allowing Soldiers to focus on the primary mission. These and other efforts across the Army served as the preamble for integrating women into expanded roles and opportunities while protecting them from illness and disease.

The Women's Health Task Force is now issuing its final report after making significant progress on a number of fronts and transitioning their work to our institutional organizations. Key accomplishments include: helping develop female specific body armor, introducing devices and exploring the feasibility and utility of self-diagnosis kits, updates to training curriculum, establishing a women's health internet portal, and addressing mental health and SHARP issues in a deployed environment. I am very proud of the team and the tremendous contributions they have made to our Army.

The Women's Health Service Line (WHS�) is dedicated to ensuring safe, quality patient care and a consistent patient experience across the enterprise. Their efforts focus on wellness and readiness, perinatal, and operational medicine in areas such as group prenatal care, cancer prevention, and postpartum readiness have been instrumental in improving healthcare outcomes and patient satisfaction. Human Papillomavirus (HPV) is the primary causative agent for cervical cancer and, according to the National Cancer Institute, is responsible for nearly of all vaginal cancers. Partnered with an education component, WHSL has taken the lead in the effort to vaccinate both boys and girls beginning at age 11 and as late as 26 years old to stamp out this preventable disease.

Sexual Assault / Sexual Harassment Prevention

The Army and Army Medicine continue to attack the complex challenges of sexual assault. While we have made much progress, much work remains. Sexual assault and harassment directly contradict Army Values. These acts degrade our readiness by negatively impacting the male and female survivors who serve within our units; it also negatively impacts other Soldiers exposed to this behavior.

As an integral participant in the Army's Sexual Harassment/Assault Response and Prevention (SHARP) program, Army Medicine continues to be at the forefront of the management, regulatory guidance, and oversight of care for all sexual assault victims. Regardless of evidence of physical injury, all patients presenting to our health readiness platforms with an allegation of sexual assault receive comprehensive and compassionate treatment. They are offered a Sexual Assault Forensic Examination (SAFE) by a trained and competent Sexual Assault Medical Forensic Examiner (SAMFE) within our military health system or at a local facility through a memorandum of agreement. Seamless follow-on care is

coordinated and managed through the sexual assault medical management team who are a designated multidisciplinary group of healthcare providers who coordinate with the Sexual Assault Response Coordinators (SARCs) and Victim Advocates (VAs) to develop a care plan based upon the patients input and needs. Army Medicine has 217 SARCs and VAs. Furthermore, there are 118 qualified SAMFEs supporting 32 MTFs, meeting the 2014 NDAA requirement to have a Sexual Assault Nurse Examiners at each of our 20 MTFs with a 24-hour emergency room capability.

The AMEDD SAMFE training meets CENTCOM pre-deployment requirements for healthcare providers assigned to Role II and Role III healthcare facilities. To support pre-deployment and local SAMFE requirements, the MEDCOM SHARP Program Office hosted and trained 141 SAMFEs in FY14. Army Medicine is in the process of aligning our SAMFE training in the AMEDDC&S and developing a certification process for all SAMFEs. The 2015 NDAA directs that our SAMFEs are trained and certified; with these changes to our curriculum, not only do we meet the requirements of the NDAA 2015, but we establish ourselves as a lead and benchmark for the DoD.

Transitioning from a Healthcare System to a System for Health

Army Medicine has made great progress over the last three years in our transition from a Healthcare System to a System for Health (SFH). Health is a critical enabler of readiness, and Army Medicine is a valuable partner in making our Force "Army Strong." In 2012, we began our journey to aggressively transition from a healthcare system—a system that primarily focused on injuries and illness—to a System for Health that now incorporates and balances health, prevention and wellness as a critical enabler for readiness. This also moves our health activities outside of the “brick and mortar” facility, brings it outside of the doctor’s office visit, and into the Lifespace where more than 99% of time is spent and decisions are made each day that truly impact health. Our efforts to transform to a System for Health are aligned along three lines of effort focusing on the Performance Triad, Delivery of Health, and Healthy Environments.

The Performance Triad

The strength of the Army and the cornerstone of landpower’s historical and future success hinges on the human dimension—the Soldier. Yet, daily, over 43,000 Soldiers, or the equivalent of 12 Brigade Combat Teams, are non-deployable; annually, 10 million duty-days are limited or lost related to injuries, 80% of which are preventable. As the Army faces a draw

down, it remains obligated to provide a Total Force that is ready for any mission in a complex world with an ever changing geopolitical landscape.

The impacts of restful sleep, regular physical activity, and good nutrition are visible in both the short- and long-term. The Performance Triad is a solution and key enabler to augment individual and unit readiness. It optimizes Soldier performance, and tackles the non-deployable and injury challenges by teaching, coaching, and mentoring Soldiers and Families to improve health related behaviors. The Performance Triad empowers them to take personal responsibility for the betterment of their health readiness, resilience and performance. The Performance Triad is a lifestyle, a way of being, and represents how to impact the Lifespace of the Total Force - where people live, work, and play.

The Performance Triad is aligned with the Army Warfighting Challenges, the Human Dimension, and the Chief of Staff of the Army's Soldier optimization efforts. The Performance Triad enhances readiness by promoting sleep, physical activity, and nutrition through health literacy campaigns delivered through a variety of channels including traditional print, digital and social media. These efforts are targeted to meet the needs of our Soldiers, Families, DA Civilians, and Retirees where they live and work. When individuals and units adopt the tenets of the Triad, they optimize the physical fitness, cognitive dominance, and emotional resilience of the Total Army Family.

Over the past year, the Army completed a six-month pilot program that tested the Performance Triad curriculum across three active duty battalions, including one deployed to Afghanistan. The results of the pilot project revealed that the majority of Soldiers are not meeting the basic Performance Triad targets essential for readiness, health, and performance. More detailed FY14 Performance Triad pilot results revealed that few Soldiers understand how to properly train to be tactical athletes, only 4-5% of Soldiers met the sleep targets, only 2-4% met all of the nutrition targets, and despite unit physical training, only 29-42% met the activity targets. After completion of the program, positive changes included: Soldiers who slept eight hours during the weekends improved from 33% to 46%, refueling after exercise and fish consumption improved, and overall, 26 to 40% of Soldiers improved on the Performance Triad targets. Over 50% of Soldiers reported they liked the program, felt the program influenced readiness, would use the information in the future, felt the program was successful, and would

recommend Army-wide implementation. From a small unit leadership perspective, Soldiers believed their squad leaders became better coaches over the course of the program.

The feedback and lessons learned from the FY14 pilot informed the FY15 Performance Triad curriculum revision. Utilizing the revised content, a second pilot will provide training to up to 30,000 active duty Soldiers across Forces Command, the US Army Reserve and National Guard. As part of this pilot, Army Medicine initiated a pilot at the AMEDDC&S in January 2015 within the Basic Officer Leader Course, the Captain's Career Course, and the Non-Commissioned Officer School to teach leaders the importance of practicing the tenets of the Triad in all environments and to be able to impart knowledge within their spheres influence. For military units, the Performance Triad is a squad-leader-led program that provides first-line supervisors easy-to-use tools required to coach, teach, and mentor the tenets of human performance optimization. In support of mission command, the Performance Triad curriculum influences health readiness and serves as a forcing function to synchronize efforts across installations and operationalize policies and programs offering a whole-of-Army approach.

The Army continues to invest in the Performance Triad to achieve the collective vision set forth in the Army Warfighting Challenges, the Human Dimension, and the Ready and Resilient Campaign. The successful Army-wide implementation of Performance Triad tenets will optimize the health readiness, resilience and performance of the Total Force.

Delivery of Health

The Delivery of Health domain focuses on restoring health through providing early access to evidence-based, safe, high quality, person-centered, predictive, proactive and collaborative healthcare while focusing on restoring health and wellness after an injury or illness. Integration of PCMH, SMCH and our health service lines, such as the Physical Performance Service Line, with tools, resources, and pathways to facilitate health, wellness, and readiness is imperative, as are critical programs such as the Army Wellness Centers, Dental "GO First Class," and our focus on optimizing Brain Health.

Musculoskeletal injuries (e.g., low back pain) are the leading reason for Soldiers seeking medical care. Outpatient medical encounter rates for active duty members across all Services nearly doubled between 2002 and 2012. These types of injuries negatively impact military readiness. At any time, 10% of active duty Soldiers are non-deployable due to physical profiling

for musculoskeletal issues. More than 75% of non-battle medical evacuations from Iraq and Afghanistan were for musculoskeletal conditions.

Given the magnitude of this problem, MEDCOM established the Physical Performance Service Line (PPSL) to implement a standardized system of care to address such musculoskeletal health. This service line is focusing on four lines of effort to track the Soldier across the spectrum of musculoskeletal health, from human performance optimization (HPO) and injury prevention (IP) through early identification and expert management of musculoskeletal injuries, and subsequently through rehabilitation and reintegration processes.

PPSL's initial areas of effort included development of an operational training course for embedded physical therapists in the BCTs, development and oversight of musculoskeletal action teams (MATs), standardized Physical Readiness Training-based e-profile templates for upper and lower body injuries, acute and traumatic musculoskeletal injury screening, referral tools for primary care providers, and a standardized aquatic rehabilitation pilot program. They are leading the way in ensuring we are delivering the very best standardized and far forward musculoskeletal care to our Soldiers, Families and Retirees across our System for Health.

Army Wellness Centers (AWC) are also instrumental in assessing and improving the health of the force, especially those who are at increased risk for obesity or other chronic conditions. In FY 2014, the AWC served 27,964 clients of all beneficiary type in 22 locations. An analysis of clients who visited AWCs between October 1, 2010, and September 30, 2014, revealed that of the 7,464 clients who had at least one follow-up BMI assessment (with at least 30 days between assessments), 59% saw a statistically significant decrease in BMI. These clients averaged a 4% decrease in BMI during this same timeframe.

Another health delivery domain initiative is the dental "GO First Class" readiness program. This has spearheaded dental readiness compliance by combining dental exams with cleanings resulting in a 50% reduction in oral disease related to caries (cavities) among active duty Soldiers. The cost savings associated with this initiative has recovered the equivalent of 61 man-years and \$13.5 million in treatment costs across the Army Dental Command.

We also placed a special emphasis on brain health to improve Soldiers' cognition, emotional, and physical strength. Brain health rehabilitation and reconditioning programs assist Soldiers as they return to highest possible level of fitness and readiness. Our goal is to also optimize cognitive and emotional fitness enriched by training, learning, and improving

performance in all human domains through attention, reasoning, decision making, problem solving, learning, communicating, and adapting. These programs are an integral step in helping Soldiers and beneficiaries return to a full state of health readiness and performance.

Healthy Environments

Healthy Environments diffuses the SFH into the Lifespace of our beneficiaries through environmental, occupational, and public health programs that promote healthy lifestyles to reduce the likelihood of illness or injury. This requires a “whole Army” approach where everything from physical layouts, installation services, and command policies at installations support this focus on readiness and transition to health. SFH maintains health in safe, sustainable communities which support informed choices and healthy lifestyles through the promotion of Healthy Environments.

Recently on a visit to Fort Campbell, I saw this in action. The hospital has done an outstanding job in focusing on the nutritional aspects of the Performance Triad in addition to sleep and activity. They have a garden where young children come to help tend and are educated on the nutritional aspects of different vegetables. They also took out soda machines and replaced them with healthy drink options. In six weeks they eliminated 600 pounds of sugar being consumed by our Service Members, employees and Family Members. They also moved the dessert bar which was the first thing you saw when you walked into the dining facility to the rear and replaced it with a salad bar. The results were nearly a 50 percent reduction in sales of desserts and a 40 percent increase in sales of salads.

These are only a few examples of the impactful changes our SFH is having across our Army. This momentum absolutely must continue, and will surely pay readiness dividends in the future.

Continuous Journey to a High Reliability Organization

While our transition to a SFH is relatively new, we have been on a longstanding, continuous journey to fully demonstrate the characteristics and behaviors of a high reliability organization (HRO), and serve as the Nation's leader in creating a culture of safety in healthcare.

HROs exceed the standards for their industry by having well-established policies and systems in place that ensure consistency of practice and enable them to reach their goals of zero preventable harm, a paramount of patient safety. A HRO is committed to achieving zero preventable harm by successfully limiting the number of errors in an environment where normal

accidents can occur due to the risk factors and complexity of the practice. The success of a HRO relies on leadership, an established culture of safety, and robust process improvement initiatives leading to enhanced efficiencies and effectiveness of health care delivery culminating in positive patient outcomes.

Recently, Army Medicine completed four of five HRO Regional Command Summits across the United States and Europe. The theme was educating and developing a collective mindfulness on “what we can do today to become an HRO tomorrow.” Command teams were charged with determining actions that can be executed immediately to empower their teams in prioritizing safety in a deliberate approach to patient-centered care and positive outcomes. This effort is a cornerstone to the future of not just Army Medicine, but to healthcare across the globe.

SECDEF MHS Review

In May 2014, the Secretary of Defense ordered the Military Health System (MHS) Review to assess the state of health care, patient safety, and quality of care within the MHS. We electively chose to compare ourselves to the best facilities by utilizing quality and safety benchmarks employed by other high performing civilian hospitals. The review concluded that the Army provides high quality care that is safe and timely, and is comparable to the healthcare found across the civilian sector. However, we are not satisfied and will continue to strive to lead American healthcare specifically in the area of patient safety.

This extensive report clearly validated that our transformation to a HRO is the correct course in providing safe and quality care to our Soldiers, Families and all entrusted to our care. Over the next year, transparency will be increased regarding patient safety metrics so our patients and external stakeholders can measure our system against the best in the Nation. The journey to become a HRO will not be complete in the next few years, but will take a generation to achieve our pursuit of zero preventable harm.

Operating Company Model

Army Medicine accelerated our transformation into a HRO with the implementation of the Operating Company Model (OCM) methodology as a means of decreasing variance and improving consistency, clarity, and accountability. Within the OCM framework, we established seven service lines, as previously described in this testimony, that are aligning capabilities to improve patient safety, quality, efficiency, productivity, and financial optimization across

multiple clinical domains. The utilization of these service lines and the OCM was a necessary step to further the principles and imperatives of a HRO across the enterprise.

Integrated Resourcing and Incentive System

During these challenging fiscal times, Army Medicine must continue to enhance value across the enterprise and drive the adoption of OCM practices. We have achieved this through the use of a financial incentive model called the Integrated Resourcing and Incentive System (IRIS). IRIS is the vehicle for Army Medicine to ensure that our MTFs are resourced for value production at an adequate level to improve access to care, recapture care, improve satisfaction, improve quality of care and incentivize for improved health outcomes. IRIS is MEDCOM's tool to adequately fund MTFs based on their performance plan to produce quality outcomes and safe delivery of healthcare.

Patient-Centered Medical Home

As part of our ongoing movement to become a HRO, we have focused on not just delivering care, but ensuring superior health outcomes. A major proponent of successful health outcomes for our Soldiers, Families, and beneficiaries is our PCMH model. Army Medicine is a clear leader in transforming primary care within the Military Health System. The PCMH model encompasses all primary care delivery sites in the direct care system, under the umbrella of the Army Medical Home (AMH), including our MTF- based Medical Homes, Community-Based Medical Homes and SCMHs.

Primary Care is delivered through an integrated healthcare team of professionals that proactively engages patients as partners in health. It relies upon building enduring relationships between patients and their provider – doctor, nurse practitioner, physician assistant and the extended team – and a comprehensive and coordinated approach between providers and community services. The AMH is the foundation of Readiness and Health and represents a fundamental change in how we provide comprehensive care to our beneficiaries including primary care, BH, clinical pharmacy, dietetics, physical therapy, and case management. Currently, 137 AMHs across the United States, Europe, and the Pacific are caring for 1.3 million beneficiaries supported by a budget of \$74.3M. All of the AMHs have been recognized by the National Committee for Quality Assurance (NCQA) representing the gold standard of patient-centered medical care.

Army Medical Homes consistently perform better than the historical Army clinic model. They distinctly focus on quality and safety outcomes, medical readiness categories, polypharmacy and BH admission rates, as well as cost containment by decreasing emergency room utilization, medical board timelines, and per capita cost while increasing patient continuity with a focus on wellness. Their overall patient and staff satisfaction is exponentially higher than the historical Army clinic model.

A major initiative introduced in the PCMH to improve readiness of the force and Family health is the integration of clinical pharmacists. Army Medicine recognizes the expanded role of clinical pharmacists to address polypharmacy risk, the use of multiple medications to treat chronic conditions, and adverse drug events that lead to a higher rate of hospital admissions. Integrating clinical pharmacists into PCMHs improves patient quality, safety, and efficiency by decreasing overall healthcare costs, minimizing adverse drug events, reducing hospital admissions and improving patient outcomes. In 2014 Army Medicine programmed \$16M for FY16 to support this critical initiative. This funding is significant because it provides a clinical pharmacist for every 6,500 enrolled beneficiaries, fully integrating clinical pharmacists into medical homes.

Additionally, the MEDCOM Primary Care Service Line initiated a six-month pilot program at two medical homes to compare the effectiveness of digital versus traditional paper BH screening for depression, PTSD, anxiety, and alcohol misuse. The pilot revealed that digital screening was more than twice as sensitive as paper screening (30% versus 12% positive response rate). In the digital group, twice as many positive screens were addressed by their primary care manager (PCM) when compared to the paper group. The digital record also provides seamless access by the PCM to review historical response trends resulting in a comprehensive plan of care to more effectively address the condition. On average, there are 25,000 primary care visits per day across Army medicine; this tool could potentially increase access to thousands of patients with unaddressed BH concerns each day. Based on these results the primary care service line is developing a strategy to deploy digital BH screening to all medical homes.

Recognizing a need for increased, confidential interaction between patients and medical providers, the Army Medicine secure messaging system (AMSMS) was developed to provide both patients and providers with additional convenient means of communication through online

messaging. Messages from patients are triaged and answered by staff without the challenges of navigating telephonic processes. AMSMS has been deployed throughout all Army Medical Homes. As of September 30, 2014, Army Medicine had nearly 305,000 uniquely connected patients (some could be multiple members in a single Family) with approximately 3,400 registered providers and 6,500 registered support staff, supporting approximately one million messages since its inception. Secure messaging has a 97% satisfaction rating. The MHS Review specifically highlighted secure messaging as a powerful tool to help the MHS improve in access, safety, and quality. We are actively conducting a marketing campaign to promote this critical initiative aimed at increasing the number of beneficiaries enrolled in secure messaging.

Surgical Services Line

The Surgical Services Service Line (3SL) is focused on a surgical services model that optimizes the productive, efficient and financially sustainable delivery of surgical care, increasing access to value-based, quality care for beneficiaries across all MTFs. 3SL's success is measured not only by increased access to care for our beneficiaries, cost savings to MEDCOM and higher quality outcomes, but in a ready and deployable medical force, enhanced Soldier readiness and improved combat casualty care. In 2014, 3SL implemented the National Surgical Quality Improvement Program (NSQIP) at all 25 surgical MTFs. Less than 10% of all US hospitals that provide surgical care utilize NSQIP. The initiatives spearheaded by 3SL realized an estimated cost savings of \$38M for in FY 2014. These and many other advances have been the catalyst to move Army Medicine forward and serve as a blueprint to become a HRO.

Clinical Performance Assurance Division

As part of our transition to a HRO, the Clinical Performance Assurance Division (CPAD), containing the Patient Safety Program, was established in 2012 and aligned under the MEDCOM Deputy Commanding General for Operations. The MEDCOM Patient Safety Program, in coordination with regional and MTF Patient Safety Leaders, works to engage leadership at all levels to cultivate a culture of safety environment of trust, transparency, teamwork and communication to improve safety and prevent adverse events. They frequently conduct scheduled and unscheduled visits at the MTF level to address system issues potentially affecting patient safety through training and clinical process review. Since the establishment of CPAD, Army Medicine has made significant progress in the reporting, investigation and mitigation of issues that could cause patients harm.

Partnership for Patients

In 2014, the continued implementation of Partnership for Patients, a national program sponsored by the Centers for Medicare and Medicaid, resulted in a 26 percent decrease in preventable harm events over the last two quarters and a 37 percent decrease overall since Army Medicine implemented the program in 2012. The CPAD medication safety team provided an analysis of workload, resulting in the hiring of 21 clinical pharmacists and 17 pharmacy technicians to increase the oversight of medication safety across Army Medicine. They also petitioned the Drug Enforcement Agency to provide DoD an exemption to allow our pharmacies to take back unused medications including scheduled medications in an effort to provide an increased level of safety for our Army Families.

Team Approach

MEDCOM continues to build a culture of safety through the further incorporation of Team Strategies and Tools to Enhance Performance and Patient Safety (Team STEPPS) to enhance team communication and collaboration so that every team member has a voice in providing health. TeamSTEPPS is an evidence based teamwork system that employs group huddles to encourage open dialogue and synchronization of efforts to optimize the use of information, people, and resources to achieve the best clinical outcomes for patients. TeamSTEPPS was initially deployed across the MEDCOM in 2011 and has led to significant improvements in teamwork and collaboration in critical areas such as our surgical suites and inpatient care areas. The TeamSTEPPS program facilitated the training of over 400 trainers through virtual training programs leading to over 60K medical and dental personnel trained. Additionally, TeamSTEPPS simulation based Operating Room Team training program was facilitated at 12 MTFs since 2012, resulting in the identification and avoidance of potential patient safety incidents while safely increasing operating room efficiency.

Patient CaringTouch System

To reduce variance and improve patient outcomes, the Army Nurse Corps developed and implemented the Patient CaringTouch System (PCTS). The PCTS is a strategic, patient-centered framework for nursing, founded on evidence-based practice and collaboration with America's top performing hospitals. It provides a framework which focuses on patient advocacy, enhanced communication, evidenced based practice, capability building, and healthy work environments.

The PCTS methodology is the foundation for the delivery of high quality, evidence-based care that includes the Family and is driven by patient-centric outcomes. When the five elements are combined synergistically, PCTS improves patient outcomes and nursing staff effectiveness, as well as decreases clinical practice variance. The focus on the patient experience through the implementation of PCTS resulted in a decrease in wait times, increase in attentiveness to patient and Family needs, and increase in patient engagement to discuss symptoms and medications.

Leading the Way

Army Medicine is leading the way in the areas of innovative medical research, diplomacy, and collaboration. History is replete with examples of war serving as a catalyst for medical innovation and of battlefield medicine producing advances in civilian healthcare. For more than 200 years, the Army's efforts to protect Soldiers from emerging health threats have resulted in significant advances in medicine. The U.S. Army Medical Research and Materiel Command (MRMC) is the Army's medical materiel developer responsible for medical research, development, and acquisition and medical logistics management. MRMC's role is to research and develop technologies and tools to ensure our Soldiers remain in optimal health and are equipped to protect themselves from disease and injury, particularly on the battlefield. Research conducted at MRMC thru joint efforts leads to medical solutions—therapeutics, vaccines, diagnostics, and actionable information—that benefit both military personnel and civilians.

More than a decade of war has led to tremendous advances in knowledge and care of combat-related wounds, both physical and mental. Our decisions today must preserve the Army's core medical research competencies and, through continued medical research investments, ensure strategic flexibility to respond to future operational threats. The DoD stands alone as the world's leading organization for trauma research and development.

The Joint Trauma System (JTS) was established in 2006 and is located at the U.S. Army Institute of Surgical Research (ISR), Joint Base San Antonio. Its mission is to improve trauma care delivery and patient outcomes utilizing continuous performance improvement and evidence-based medicine driven by analysis of data maintained in the DoD Trauma Registry. The JTS has collected data from more than 130,000 combat casualty care records from Iraq and Afghanistan. The data have resulted in 39 Clinical Practice Guidelines (CPGs) to provide enduring evidence-based, best-practice recommendations for trauma care. The continuous monitoring and evaluation of outcomes after implementation of the CPGs provides evidence necessary to turn

results into improved outcomes for combat casualties. The success of the JTS is clearly reflected through sustainment of the lowest lethality rate ever recorded during our current conflicts.

In conjunction with delivering rapid and effective combat casualty care, the Army continues to refine surgical and hospital capabilities based on lessons learned from the past thirteen years of conflict. These initiatives complement our advances in combat casualty care at the point-of-injury to sustain and to increase battlefield survival rates. Lessons learned from the Iraq and Afghanistan theaters of operations led to the clear requirement to make fundamental changes to the design of the Forward Resuscitative Surgical Team (FRST) and the Field Hospital (FH). The key changes to the FRST and FH designs include modularity, scalability, and the ability to conduct split-based operations. The new structure, approved in August 2014 by the Vice Chief of Staff of the Army, will meet the needs of both conventional and non-conventional forces. These enhanced capabilities will be critical to rapidly supporting future operations in various conflict environments across the globe.

MRMC will expertly manage and execute congressional special interest (CSI) funds to meet the intent of Congress, to seek and fund the best science with a keen focus on military relevance, where applicable. The CSI funds are executed through established, highly effective, efficient, and low cost processes using only approximately 15% in research management support costs for the MRMC and the remaining 85% of all the CSI funds being placed on awards to maximize the science and the taxpayers' investment.

Historically, infectious diseases are responsible for more US casualties than enemy fire. Continued progress to address these emerging threats requires ongoing commitment to funding, developing personnel with expertise in infectious diseases, and maintaining stateside and overseas laboratory infrastructure and overseas field sites for clinical studies and response to contingencies. The coordinated and swift response to the Ebola virus outbreak demonstrated the value of continued funding in this area.

Army Medicine closely partnered with interagency partners including the Centers for Disease Control and Prevention (CDC) in the domestic and global Ebola virus response. The US Army Medical Research Institute of Infectious Diseases (USAMRIID) Diagnostic Systems Division provided Ebola testing capability for the National Laboratory Response Network (LRN), qualification testing for other LRN laboratory use of the FDA Emergency Use Authorization (EUA) Ebola diagnostic assay, and pre-deployment training for laboratory

personnel staffing mobile laboratories in Liberia. USAMRIID laboratory personnel, in collaboration with National Institute of Allergy and Infectious Diseases personnel have continuously staffed the Liberian National Reference Laboratory at the Liberian Institute of Biomedical Research, in a host nation capability and capacity development initiative to provide lasting enhancements to laboratory capability that will endure beyond the current outbreak.

MRMC overseas laboratories, the US Army Medical Research Unit-Kenya and Armed Forces Research Institute of Medical Sciences in Thailand, are providing technical support to their host nations' laboratory preparedness and Ebola virus disease (EVD) response planning efforts. Additional EVD research and development efforts executed at MRMC including the Walter Reed Army Institute of Research (WRAIR) and USAMRIID, funded by the Chemical and Biological Defense Program (CBDP), have contributed to the development of investigational EVD therapeutics, vaccines and diagnostics. Vaccine development efforts are being accelerated in response to the current West African outbreak to include several CBDP-funded candidates projected to enter Phase 2-3 clinical testing in early 2015. The MRMC Ebola Response Management Team has developed a proposed organizational framework for DoD and HHS elements to partner and collaborate with other US Government agencies involved in the EVD outbreak, the World Health Organization, non-governmental agencies, and foreign governments (i.e. Liberia, Sierra Leone, and Guinea) to collaboratively engage West Africa in the conduct of clinical trials at the strategic, operational, and tactical levels. The WRAIR HIV program is currently conducting an early Ebola Vaccine Trial in collaboration with National Institutes of Health (NIH)-National Institute of Allergies and Infectious Diseases (NIAID) to test the safety and immunogenicity of an experimental vaccine candidate.

As we globally rebalance to the Pacific, our Soldiers will deploy to areas plagued with endemic infectious diseases such as malaria and dengue, as well as emerging disease threats across 105 million square miles. Experts predict that infectious diseases will be the primary cause of hospitalization of US military in the Asia-Pacific region. In an effort to combat this distinct threat to the force, USAMRMC laboratories continue to build on partnerships with Navy Medicine, Federal agencies, academia, non-governmental organizations, other private entities, and foreign Governments. These relationships leverage resources for continued development of endemic infectious disease treatments, preventive drugs, vaccines, vector control, and diagnostic tools essential to preserving the readiness of the force.

Examples of recent successes include a rapid diagnostic test for cutaneous leishmaniasis, developed by MRMC and industry partners under the US Army Small Business Innovation Research program. This device received FDA clearance in November 2014 and is now commercially available. Additionally, two malaria treatment drugs are expected to be licensed in 2018 and two malaria vaccine candidates are scheduled to be transitioned to advanced development in FY17-18. Early clinical trials have begun on the effectiveness of vaccines targeting hemorrhagic fever and organisms causing bacterial diarrhea.

It is imperative we sustain funding to finalize these revolutionary advances that will not only ensure the safety of our global force, but ultimately save millions of lives across the world.

Education and Training

Army Medicine continues to lead the nation in attracting and educating the best medical minds. Our Graduate Medical Education (GME) programs and education programs receive high praise from accredited bodies, and our trainees routinely win military-wide and national level awards for research and academics. Currently, we have 1596 Health Professionals Scholarship Program students in medical, dental, veterinary, optometry, nurse anesthetist, clinical psychiatry and psychiatric nurse schools. Additionally, the Uniformed Services University of the Health Sciences is a critical institution dedicated to developing and training clinicians in leadership, clinical, and combat casualty care as well as operational medicine. Our GME training programs have 1,476 trainees in 148 programs located across 10 of our MTFs. Our GME graduates have continued to exceed the national average pass-rate of 87% for specialty board certification exams, with a consistent pass rate of approximately 92% for the last 10 years with 95% first-time board pass rate last year.

Our education programs have been recognized nationally. The Army Medicine's Physical Therapy Program at Baylor University is currently the 5th ranked program in the country out of over 210 national programs; our graduates have a 100% licensure pass rate in the past 3 years and have advanced the science through numerous peer-reviewed journal article publications. US News and World Report most recent survey of graduate schools ranked the US Army Graduate Program in Anesthesia Nursing (USAGPAN) as the number one program in the Nation out of 113 nursing anesthesia programs. Furthermore, it ranked the Army-Baylor University Graduate Program in Health Administration program as the 11th out of 75 national

programs. Overall, we not only have the largest training program in the military, we are one of the largest medical education systems in the country.

Global Health Diplomacy

Demand for Army capabilities and presence continues to increase across all Combatant Commands in response to growing and emerging threats. We continue to develop key relationships with our interagency partners and our allies to enhance security cooperation, provide foreign humanitarian assistance, build partner capacity, and participate in multi-lateral exercises. Army Medicine is a key combat multiplier that increases access and collaboration with military medical activities in partnerships across the globe. Increasing health diplomacy offers a collegial and non-threatening means of engaging with partner countries, states and foreign groups. Health in many instances offers access and opens gateways not otherwise available through conventional means.

Establishing and maintaining medical partnerships is crucial to supporting the Army's Regionally Aligned Forces (RAF) construct. Many RAF engagements during 2014 were focused primarily on medical support and humanitarian assistance, especially in Africa, South America and across the Asia Pacific regions. Furthermore, health diplomacy facilitated by Army Medicine personnel has opened dialogues and shaped early working relationships with China, Vietnam and other foreign militaries and groups. These engagements have strengthened our relationship with many of our allied partners throughout the world. For example, just one unit, the 30th Medical Brigade, will complete engagements with 19 partner nations this year alone.

Sustaining the Force through Collaboration

Just as Army Medicine increases engagement with our global partners, we are increasing collaboration with the Department of Veterans Affairs, as well as supporting the establishment of the Defense Health Agency (DHA) to ensure our Soldiers and Veterans have improved access to the care and support they have earned through their distinguished service.

Over the past decade, the Army has increased partnerships with the VA through sharing agreements that provide care to VA beneficiaries in various healthcare facilities that have excess capacity. This enables VA beneficiaries to receive high quality, cost effective, and timely care in locations where the VA may have limited capability or resources. In FY14, Army Medicine provided \$49 million in healthcare services to VA beneficiaries at 19 locations across the

country. The range of services varies by location and is the result of matching VA's needs with the Army's excess capacity. In some locations, such as Honolulu and El Paso, we provide a broad spectrum of inpatient and outpatient specialty services.

Although Army Medicine does not have any joint facilities with the VA, there are locations where the Army and VA facilities are located in close proximity or connected, but remain distinct organizations with close collaboration. In a new collaborative effort, the Army will occupy a portion of the Major General William H. Gourley VA-DoD Outpatient Clinic in Marina, California. At this location Army staff will provide care to DoD beneficiaries in a DoD clinic imbedded within the larger VA facility. The clinic is expected to open in FY17.

Operating as a joint team allows us to share best practices and lessons learned across the services. Together with Dr. Woodson, the Service Surgeons General are working to organize and lead the MHS into the future by building a stronger, even more integrated team. The establishment of a DHA in October 2013 represented a major milestone towards modernization and integration of military medical care.

Army Medicine has been a key contributor to the transition and integration of the ten shared services by providing 643 personnel to the DHA thus far. In the last year, all ten shared services have reached initial operating capability and are expected to reach full operating capability by October 1, 2015, with some possibility of establishing full operating capability ahead of schedule. The AMEDD will continue to drive fundamental changes within the MHS and support these transformation efforts that improve readiness and quality of healthcare while containing costs.

As part of Governance reform, six enhanced Multi-Service Markets (eMSM) were also established covering San Antonio, the Puget Sound, Hawaii, Colorado Springs, Tidewater, and the National Capital Region. The MHS expects substantial savings from these markets because they enable the market manager to cross Service boundaries and shift health care from the private sector to military treatment facilities, which are our readiness platforms. This workload recapture directly impacts the readiness of the Army by ensuring providers, nurses, and other clinicians are able to sustain their clinical combat trauma care skills and capabilities. The Army currently is the Service Lead in three markets: Hawaii, Puget Sound, and San Antonio.

Conclusion

Army Medicine provides certainty in an uncertain world. We have always been a force enabler, assuring and caring for Soldiers on the battlefield and at home. We have also always been a leader in healthcare and health, contributing enormously to solving military, national, and global health concerns. To adapt from a World War I song lyric: “When we are needed – we are there!”

During these uncertain times, Army Medicine must continue to provide certainty to our Soldiers, Families, and our Retirees. We must deliver on our Nation’s obligation to care for our Soldier’s needs, restore full function, promote readiness, and optimize their performance. These efforts will provide the foundation for the effectiveness of our entire Army, and play an important role in contributing to global stability.

It is during this time, as we draw down from over 13 years of conflict, that we must ensure that Soldiers and their Families are strengthened with resiliency built to carry them through future global conflicts and hardships. It is during this vital period that Army Medicine will play an essential role as the Army’s health readiness platform. I am committed to ensuring that during these drawdown years, our ability to carry out the readiness mission does not diminish. Together, we must keep the momentum going and remain proactive, ensuring our enduring missions, transition to a System for Health and progress toward a high reliability organization with our innovative research, diplomacy, and collaboration continuing full speed ahead.

The fiscal challenges that loom ahead are daunting. However, we will continue to support the Army in any austere environment at home or abroad. These are times of great uncertainty and opportunity, and while there will be many challenges, anything less than our top performance will cost lives. As partners with Congress, I am confident that none of us will allow that to happen on our watch.

VADM NATHAN OPENING STATEMENT

Mr. FRELINGHUYSEN. Thank you, General, for your testimony. Admiral Nathan.

Admiral NATHAN. Chairman Frelinghuysen, Ranking Member Visclosky, distinguished members of the subcommittee, I am grateful again for the opportunity to appear before you today. On behalf of the dedicated men and women of Navy Medicine, I want to thank the committee for your outstanding support and confidence.

I can report to you that the Navy Medicine team is mission ready and delivering world-class care anywhere, any time. Navy Medicine protects, promotes, and restores the health of sailors and marines around the world, ashore and afloat, in all warfare domains. We exist to support the operational missions of both the Navy and the Marine Corps. These responsibilities require us to be agile expeditionary medical force capable of meeting the demands of crisis response and global maritime security.

In this regard, we are staying the course with our strategic priorities of readiness, value, and jointness. Individually and collectively, these mutually supportive focus areas are instrumental in shaping our decisionmaking, internal processes, and organizational capacity. Our strategy is aligned, balanced, and unified, and I believe strengthened, because everyone in Navy Medicine has a distinct and important role in contributing to the success of these efforts.

By leveraging the capabilities of our patient-centered medical home, Medical Home Port, and completing our CONUS Hospital Optimization Plan, we are moving more and more workload into our military hospitals, growing our enrollment, rebalancing staff, and reducing overall purchased care expenditures. We recognize the health of our beneficiaries is the most important outcome, and our systems must be aligned to support this priority. Health care should not be a supply-driven or volume-based commodity. It is about patient-centered care and focused on all dimensions of wellness, body, mind, and spirit.

We must never waiver in our commitment to provide care and support to our wounded warriors and their families. This is particularly true for the treatment of mental health issues and traumatic brain injury. While our present conflicts may be coming down, the need for quality mental health and TBI care will be a continued need, and we are poised to provide these services now and in the future.

We continue to embed mental health capabilities in operational units and primary care settings in order to identify and manage issues before they manifest as psychological problems. This priority extends to suicide prevention efforts where we train sailors, marines, and their families to recognize operational stress and use tools to manage and reduce its effects.

As leaders, we have renewed our emphasis on ensuring that we focus on every sailor every day, particularly those in transition or facing personal or professional adversity. We know that an increased sense of community and purpose is an important protective factor in preventing suicide, and we must remain ready and accessible to those who need help.

Strategically, I am convinced that we are stronger as a result of our work with the other Services, our interagency partners, including the VA, leading academic and private research institutions, and other civilian experts. These collaborations are vital as we leverage efficiencies and best practices in clinical care, research and development, medical education, and global health security.

The enterprise strength of Navy Medicine is now and always will be our people. I can assure you that the men and women serving around the world are truly exceptional and guided by the Navy's core values of honor, courage, and commitment. Of note, I am continually inspired by the skill and dedication of our young hospital corpsmen, many of whom are just out of high school and whose parents, like me as the father of a teenager, marvel at their ethics and capability but still wince a little as we hand them the keys to our car.

We ask a lot of these young people, and they step up. As I travel and see our corpsmen operating forward aboard ships or deployed throughout the world in the combat AORs, I can assure you, Mr. Chairman, that you and the American people can be very proud of their performance. In fact, of the 15 Silver Stars awarded to Navy sailors throughout OIF and OEF, 14 of those have been awarded to Navy corpsmen.

Mr. FRELINGHUYSEN. Wow.

Admiral NATHAN. We need to recognize what sets us apart from civilian medicine. We are truly a rapidly deployable, fully integrated, vertically integrated combat casualty care support system. This capability allows us to support combat casualty care with unprecedented battlefield survival rates over the last 13 years; to meet global health threats expediently, as we did in deploying labs and personnel to Liberia that slashed the Ebola testing time from days to hours; and to have our hospital ships, the *Comfort* and the *Mercy*—*Comfort* underway as we speak—ready to get out and about to support humanitarian assistance and disaster relief efforts around the world.

We must also understand that our readiness mission is inextricably linked to the work our personnel do day in and day out in our hospitals and clinics, in our labs and our classrooms. Our patients expect a lot of us, and they should. I am privileged to work so closely with my fellow Surgeons General who are equally passionate about continuous improvement in moving the military health system forward as a truly highly reliable organization.

These are transformational times for military medicine, the likes of which I have not seen in my career. There is much work ahead as we navigate the important challenges and seize opportunities to keep our sailors and marines healthy, maximize the value for all our patients, and leverage joint opportunities. I am encouraged with the progress we are making, but not yet satisfied. We continue to look for ways to improve and remain on the forefront of delivering world-class care any time, anywhere.

Thank you, sir, for your steadfast support, and I look forward to your questions.

[The written statement of Vice Admiral Nathan follows:]

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THE HOUSE COMMITTEE ON APPROPRIATIONS

STATEMENT OF
VICE ADMIRAL MATTHEW L. NATHAN, MC, USN
SURGEON GENERAL OF THE NAVY
BEFORE THE
SUBCOMMITTEE ON DEFENSE
OF THE
HOUSE COMMITTEE ON APPROPRIATIONS
SUBJECT:
DEFENSE HEALTH PROGRAM

April 14, 2015

NOT FOR PUBLICATION UNTIL RELEASED BY
THE HOUSE COMMITTEE ON APPROPRIATIONS

Chairman Frelinghuysen, Ranking Member Visclosky, distinguished Members of the Subcommittee, on behalf of the Navy Medicine team – over 63,000 dedicated men and women serving around the world – I want to thank the Committee for your tremendous support. I am grateful for the opportunity to appear before you today and I can report to you that Navy Medicine is capable, mission-ready and steadfast in our commitment to deliver world-class care, anytime, anywhere.

Strategy: Aligned, Balanced and United

The core mission of Navy Medicine is inextricably linked to that of the United States Navy and the United States Marine Corps. We protect the health of combat-ready Sailors and Marines in support of global expeditionary missions. Navy Medicine operates underway in all warfare domains and in all environments. This mission requires us to be agile to support the full range of operations and be ready to respond where and when called upon. The Chief of Naval Operations has maintained this imperative through his Sailing Directions: (1) Warfighting First; (2) Operate Forward; and (3) Be ready. These tenets are impactful as we sustain our readiness posture to meet these demanding missions.

Within Navy Medicine, we are staying the course with our 2015 strategic priorities of readiness, value and jointness. Specifically:

Readiness: We provide agile, adaptable, and scalable capabilities prepared to engage globally across the range of military operations with maritime and other domains in support of the national defense strategy.

Value: We provide exceptional value to those we serve by ensuring highest quality through best health care practices, full and efficient utilization of our services, and lower care costs.

Jointness: We lead Navy Medicine to jointness and improved interoperability by pursuing the most efficient ways of mission accomplishment.

Individually and collectively, these mutually-supportive focus areas are instrumental in shaping our decision-making, internal processes and organizational capacity. We are continuing

to drive progress in several key objectives including delivering ready capabilities to the operational commanders and ensuring clinical currency of our medical force. Within the context of providing best value for our beneficiaries, we are sustaining efforts to decrease enrollee cost and increase recapture of private sector purchased care, as well as standardize our clinical, non-clinical and business processes. Navy Medicine continues to leverage joint capabilities to improve interoperability and efficiencies. Our priorities are strengthened because everyone in Navy Medicine has a distinct and important role in contributing to the success of these efforts.

We are advancing joint efforts through the Defense Health Agency (DHA) and its supporting role to the Services' medical departments. Our collective goal is to facilitate greater integration of clinical and business processes across the Military Health System (MHS) through the implementation of shared services. This portfolio of services, all on track to reach full operating capability by October 2015, includes: facilities; medical logistics; health information technology; health plan; pharmacy; contracting; budget and resource management; medical research and development; medical education and training; and, public health. They will be important in building a sustainable business model for the DHA, creating system-wide efficiencies and reducing process variation.

Our collaborative work is evident in response to the comprehensive review of the MHS directed by the Secretary of Defense in May 2014. The 90-day review was directed to assess whether (1) access to medical care in the MHS meets defined access standards; (2) the quality of health care in the MHS meets or exceeds defined benchmarks; and (3) the MHS has created a culture of safety with effective processes for ensuring safe and reliable care of beneficiaries. This review applied evidence to what we had previously only been able to presume with regard to quality, safety, and access. We can now assertively conclude Navy Medicine performs

comparably to civilian health care systems. This rigorous self-assessment demonstrated that we have areas of excellence and areas that could benefit from further improvement. The review afforded us the opportunity to drill down on these opportunities for improvement. In response, we are systemically and aggressively addressing all lagging outliers within Navy Medicine, with demonstrable results already achieved. We are also working with the other Services and the Assistant Secretary of Defense for Health Affairs (ASD (HA)) to transform the MHS into a high reliability organization (HRO) and build a robust performance management system. The review served as an important catalyst to support performance improvement through better analytics, greater clarity in policy, improved transparency, and alignment across training and education programs. I am committed to these transformation efforts and confident that we have a sound and actionable strategy to support our way forward.

Within Navy Medicine, our continuous process improvement (CPI) efforts are leveraging both our Lean Six Sigma (LSS) program and our industrial engineering (IE) capabilities to ensure that efforts are aligned with Navy Medicine strategic priorities. This approach enables us to track the progress of projects, validate results, communicate lessons learned and best practices, as well as improve communication at all levels. In FY2014, over 100 performance improvement projects were completed throughout Navy Medicine, with approximately the same number currently in progress. Focus areas include standardizing clinical and business practices, improving quality and access, recapturing private sector care, as well as specific initiatives in logistics, pharmacy, laboratory processes and surgical services.

Sound fiscal stewardship of our resources is critical to ensuring we have the capability to provide outstanding care to our beneficiaries. The President's Budget for FY2016 adequately funds Navy Medicine to meet its medical mission for the Navy and Marine Corps; however, we

remain concerned about the uncertainties and associated challenges with any sequestration impacts. The President's Budget also contains important proposals to modernize and simplify TRICARE, along with adjusting cost sharing requirements for some beneficiaries and incentivizing the use of the mail order pharmacy. We support these important proposed changes as necessary to help sustain an equitable health care benefit. Navy Medicine appreciates the Committee's strong continuing commitment to our resource requirements and recognizes the significant investments made in support of military medicine.

We are committed to achieving the Department of Defense (DoD) objective of preparing auditable financial statements and reports, including providing substantiating supporting documentation. As a result, audit readiness is a priority for Navy Medicine and we continue to make progress in this important area. We have deployed standard operating procedures supporting key financial business processes and provided thousands of training hours to financial, materiel management and administrative personnel across the enterprise. These efforts strengthen internal controls, improve documentation and help foster continuous business process improvement. In addition, this work helps our decision-making capabilities and demonstrates to our stakeholders that Navy Medicine is an accountable steward of the resources we receive.

Mission: Force Health Protection

The foundation of Navy Medicine is force health protection. We protect, promote and restore the health of our Sailors and Marines in all environments, ashore and afloat. This responsibility requires us to be agile, flexible and capable in all aspects of expeditionary medical operations from preventive medicine to combat casualty care to humanitarian assistance and disaster response (HA/DR). As a ready medical force, we must be prepared for any contingency and be capable of operating where it matters and when it matters.

Navy Medicine continues to sustain unparalleled levels of mission success, competency and professionalism while providing world-class trauma care and expeditionary force health protection in support of U.S. and coalition forces in the southern Afghanistan Train Advise and Assist Command-South (TAAC-S) Combined Joint Area of Operations (CJOA). As troop levels decreased more than 75 percent during 2014, the forward deployed NATO Role 3 Multinational Medical Unit (MMU) continued to provide the high-level evaluation, resuscitation, surgical intervention, post-operative care, behavioral health and patient movement services our combatant commanders expect from us. Despite manning reductions from 133 to 87 personnel, the MMU maintains 12 trauma bays, four operating rooms, eight intensive care beds and 12 intermediate care beds.

In 2014, trauma teams at the Role 3 MMU cared for over 1,600 trauma patients and 130 point-of-injury patients that led to 220 admissions and 75 successful operative procedures. The Role 3's patient movement element safely evacuated over 145 patients to higher echelons of care. Navy Medicine's dedication to the warfighter and successful mission accomplishment led to the sustainment of the highest combat injury survival rate in the history of modern warfare, 98 percent. A significant force-multiplier, the Role 3 MMU enabled execution of decisive war-fighting strategies by meeting and exceeding operational and force protection requirements across a highly kinetic battle space.

Navy Medicine has been supporting DoD's interagency efforts in response to the Ebola Virus Disease (EVD) outbreak in West Africa. In September 2014, the Naval Medical Research Command deployed two mobile labs to Liberia in support of U.S. Africa Command (AFRICOM) participation in Operation UNITED ASSISTANCE (OUA). The mobile labs, each manned by Navy Medical Service Corps microbiologists and hospital corpsmen (advanced laboratory

technicians), are rapidly deployable detection laboratories that incorporate immunological and molecular analysis techniques. The mobile labs optimize these technologies to rapidly detect infectious pathogens. The labs' detection capabilities effectively reduced the amount of time it takes to determine whether a patient has EVD from several days to a few hours, which greatly reduced the amount of contact that suspect, non-infectious EVD cases have with confirmed infectious cases. We also deployed 23 Navy Medicine personnel in support of the in-theatre Joint Medical Training Teams which are providing important training to host nation health care personnel. In addition, 28 Navy Medical Corps and Nurse Corps officers completed specialized Ebola-specific training at Fort Sam Houston as part of the Joint Expeditionary Medical Support Team. The team maintained a continuous response posture in support of the Department of Health and Human Services' (DHHS) mission to provide specialized services for domestic Ebola-related prevention and response. Navy Medicine hospitals and clinics assiduously prepared for potential EVD patients by implementing Centers for Disease Control (CDC) protocols, performing exercises and training in personal protective equipment.

Navy Medicine's investments in Global Health Engagement (GHE), including participation in humanitarian civic action (HCA) missions and multi-lateral exercises, are critical to improving and sustaining medical response capacity and stability, preventing and combating global health risks, and providing force health protection for our personnel. These efforts directly support our capability to respond to world-wide crises and offer unmatched training opportunities to build joint, interagency and international relationships. Naval forces are uniquely positioned to readily meet the challenges of HA/DR missions across the globe. In this regard, we are maturing our strategic partnerships in support of global health security, health threat mitigation, and health stability operations. Building relationships through health promotes our U.S. security interests

and supports important theatre security cooperation activities. These efforts also leverage interoperable capabilities with our allies, as well as interagency and non-governmental organizations (NGOs).

Navy Medicine's participation in enduring HCA missions and military-to-military exercises is also important to sustaining the readiness skills of our personnel. In 2014, the hospital ship USNS MERCY (T-AH 19) participated in the 24th Rim of the Pacific (RIMPAC) – a biennial exercise that included 22 nations, 49 ships and submarines, more than 200 aircraft and 25,000 personnel. RIMPAC featured robust military medical engagement, with MERCY participating in exchanges and drills with partner nations, including the People's Republic of China. Plans for Navy's HCA missions in 2015 include Pacific Partnership (PP) and Continuing Promise (CP) which foster relationships with partner and host nations in the Pacific Rim/East Asia and South America/Caribbean, respectively. These missions include both hospital ships with MERCY participating in PP and USNS COMFORT (T-AH-20) supporting CP. These missions will also include medical personnel from the Army and Air Force as well as NGO partners and regional host nations.

In support of the geographic combatant commanders and Navy component commands, Navy Medicine personnel are assigned world-wide supporting GHE activities and global health security, including research and development at our overseas laboratories, public health through Navy Environmental Preventive Medicine Units (NEPMUs). We also have cadre of interagency liaison officers and two health affairs advisors in the Pacific area of responsibility assigned to the embassies in Port Moresby, Papua New Guinea and Hanoi, Vietnam.

Readiness is also directly supported by important health services such as the provision of eyewear. The Naval Ophthalmic Support and Training Activity (NOSTRA), located in

Yorktown, Virginia, is DoD's lead agent for all ophthalmic needs. The command coordinates the fabrication of eyewear amongst 26 Navy and Army optical laboratories to produce nearly 1.5 million pairs of spectacles, gas mask inserts, and ballistic eye protection eyewear annually for active duty, reserve component, and qualified beneficiaries. NOSTRA also fabricates eyewear in support of Pacific Partnership, Continuing Promise and other civic action missions. Committed to continuous improvement, this past year NOSTRA reduced its ophthalmic production rework to a 1.2 percent yearly average, which is well below the national average of 6 percent, through implementation of process changes and staff training.

Health: Delivering Patient and Family-Centered Care

We recognize the health of our beneficiaries is the most important outcome and our systems must be aligned to support this priority. It is not supply-driven or volume-based; it is patient-centered, focused on health outcomes and includes all dimensions of health – body, mind and spirit.

Our Medical Home Port (MHP) program is the foundation to providing integrated and comprehensive primary care. It is a team-based approach offering same day access, preventive services, standardized clinical processes, interactive secure messaging and access to a 24-hour Nurse Advise Line. All Navy MHP practices have undergone rigorous evaluation of clinical and business process standards and achieved recognition by the National Committee for Quality Assurance (NCQA) and the Tri-service Patient-centered Medical Home Advisory Board.

Nearly all of Navy Medicine's 750,000 MTF enrollees are receiving care in a MHP and our metrics show continued improvement. In FY2014, access to acute and routine appointments improved ten and five percent, respectively, while emergency department utilization decreased by six percent from the prior year. We have also seen an increase in the number of beneficiaries

utilizing secure electronic messaging to communicate with their providers, with over 290,000 patients sending more than 30,000 messages per month. These tools enhance provider-patient communication, improve access and help reduce unnecessary clinic visits and expensive use of the emergency department.

We are also expanding important population health management capabilities at several of our MHP sites. The adaptable and scalable framework is derived from a MHS Innovation Award-winning pilot program at Naval Medical Center, San Diego and Naval Hospital Camp Pendleton. This initiative allows for the development of a cohesive and targeted population health strategy that utilizes stratified analyses to determine the type and amount of resources necessary to manage health needs at the local facility. Efforts will focus on all levels of disease prevention in order to improve the health outcomes of our patients. We are also leveraging the unique data analysis capabilities and the health promotion and wellness expertise of the Navy and Marine Corps Public Health Center (NMCPHC) to support each site.

We are ensuring that our Sailors and Marines have access to the benefits of MHP by tailoring programs for the operational forces, including access to integrated behavioral and psychological health care providers. We implemented six Marine-Centered Medical Home (MCMH) and three Fleet-Centered Medical Home (FCMH) demonstration sites and planning is underway for an additional 19 sites by the end of 2015. The trends are encouraging with initial data showing Marines not enrolled in MCMH are twice as likely to seek care via the emergency department as compared to those enrolled in a MCMH. Most importantly, we are getting positive feedback from our line and USMC commanders about improved access and readiness for their personnel.

The Navy Comprehensive Pain Management Program (NCPMP) is now integrated within MHP furthering the interdisciplinary approach. This alignment allows us to better focus on

prevention, compliance with clinical practice guidelines and improved provider and patient education. In partnership with the University of New Mexico and Army Medicine, we implemented Project ECHO™ – a tele-mentoring program connecting pain management specialists with our primary care providers to help manage patients with chronic or acute pain. Complementary and Alternative Medicine (CAM) modalities are also provided at various Navy MTFs such as acupuncture to treat chronic pain, migraine headaches, back and neck pain and a variety of other conditions. In FY2014, we expanded acupuncture and pain management training opportunities for our clinicians to help broaden the availability within Navy Medicine.

The maturation of our MHP efforts has been complemented by the implementation of the Navy CONUS Hospital Optimization Plan, a comprehensive initiative at nine of our U.S. hospital MTFs. Inpatient bed capacity, workload, staffing and beneficiary population were carefully assessed at each MTF to determine ability to recapture inpatient workload, optimize primary care enrollment and determine specialty services. The plan resulted in the realignment of personnel and services at several of our MTFs which will help sustain the operational readiness skills of our provider teams, improve MHP enrollment capabilities and enhance our private sector care recapture efforts. The plan also focused on the realignment of our family medicine graduate medical education (GME) programs in order to strengthen our training pipeline by maximizing our residents' exposure to required case numbers and complexity of care.

We are grateful for your support of our military construction requirements as we work to provide outstanding facilities for our patients and staff. The new Naval Hospital Guam opened its doors in April 2014 in a location Navy Medicine has served proudly since 1899. The new hospital incorporates advances in health care delivery, providing a facility that will improve patient life safety and increase efficiencies in hospital operations, while meeting the full

spectrum of medical and surgical care for all eligible beneficiaries. The completed hospital provides 281,000 square feet of modern health care spaces, including 42 beds, four operating rooms, two cesarean-section rooms, and improved diagnostic and ancillary capabilities to include magnetic resonance imaging and computed tomography scanning suites. As a vital readiness and quality of life platform for Joint Region Marianas (JRM) and the pivotal Pacific AOR, this military construction project also established a successful model for building regional partnerships. Collaborating with JRM and through the defense reutilization program, medical equipment from the old hospital that was not selected for reuse by DoD generated opportunity and goodwill to benefit other health care facilities and partners in that medically underserved region. Our service members, their families, retirees, and veterans are better served by the opening of this state-of-the-art facility.

Navy Medicine is committed to providing quality medical care to our wounded warriors and their families. This is particularly true for the treatment of mental health issues and traumatic brain injury (TBI). While our present conflicts are coming to an end, the need for quality mental health and TBI care will continue and we are poised to provide these services now and in the future. We work closely with Navy Safe Harbor and the USMC Wounded Warrior Regiment to ensure quality care, coordinated care, and smooth transitions of care.

Navy Medicine provides timely, evidence-based mental health care for Sailors, Marines and their families across the continuum of care, including resiliency training, outpatient care, and inpatient treatment. Evaluation and treatment services are available ashore and underway, in the United States, and in a variety of locations overseas. The primary objective of all mental health care is to help individuals achieve their highest level of functioning while supporting the military mission. We are increasingly focused on ensuring that our care is evidenced-based and

supported by quantifiable treatment outcomes. Regular audits conducted by our Psychological Health Advisory Board reflect both the benefits of our mental health care and compliance with clinical practice guidelines that exceed the civilian sector particularly for the treatment of post-traumatic stress disorder (PTSD) and depression, which are common issues within the wounded warrior population. We are also encouraged by the promising research conducted by the Naval Health Research Center (NHRC) in alternative therapies such as mindfulness as a stress reduction and resilience building technique.

We continue to embed mental health providers directly within operational units. Embedded mental health providers reduce stigma, increase access to care, and help detect stress injuries early before they lead to decreased mission capability and mental health problems. We are also embedding mental health providers in primary care settings. The Behavioral Health Integration Program (BHIP) in the Medical Home Port will establish over 80 BHIP sites throughout the Navy, Marine Corps, and the fleet. BHIP sites are established at two Marine-Centered Medical Homes, one Fleet-Centered Medical Home and 38 Navy Medical Home Ports.

We must also ensure that our families have access to the support services they need. Since its inception in 2008, the Families Over Coming Under Stress (FOCUS) program has enhanced resilience and decreased stress levels for thousands of active duty service members and their families. FOCUS supports family psychological health and resiliency-building and addresses family functioning in the context of combat deployments, multiple deployments, and high-operational tempo. Through the application of a three tiered approach to care (community education, psycho-education for families and brief-treatment intervention for families), FOCUS has shown statistically significant outcomes in increasing family functioning and reducing negative emotions in both parents and children. To date over 500,000 service members, families,

providers and community members have participated in this service at one of our 23 locations worldwide. As part of the transition to a government operated program, we are working to continue these important support services and planning is ongoing to ensure they are appropriately realigned within Navy and Marine Corps family programs.

Navy Medicine remains committed to supporting the psychological health needs of Navy and Marine Corps reservists and their families. The Navy and Marine Corps Reserve Psychological Health Outreach Program (P-HOP) provided over 13,000 outreach contacts to returning service members and provided behavioral health screenings for approximately 12,000 reservists in FY2014. They also made over 600 visits to reserve units and provided presentations to approximately 63,000 reservists, family members and commands. Over 1,500 service members and their loved ones participated in one of 14 Returning Warrior Workshops (RWWs) conducted last year. RWWs assist demobilized service members and their families in identifying issues that often arise during post-deployment reintegration.

Navy Medicine continues to work with the National Intrepid Center of Excellence (NICoE) to enhance our treatment regimens and increase our understanding of TBI. We currently have one NICoE satellite clinic located at Naval Hospital Camp Lejeune with another planned for Marine Corps Base Camp Pendleton in proximity to the new hospital. The NICoE satellites are designed to provide advanced evaluation and care for service members with acute and persistent clinical symptoms following a TBI. These facilities adhere to a core concept of care (including a standardized staffing and treatment model) that was jointly developed by the Services, as well as the NICoE, the Defense Centers of Excellence for Psychological Health and TBI (DCoE), and the Defense and Veterans Brain Injury Center (DVBIC). Through our NICoE satellites, Naval Hospital Camp Lejeune and Naval Hospital Camp Pendleton will serve as the East and West

Coast hubs for the referral and treatment of patients with acute and persistent post-concussive symptoms.

The OASIS program (Overcoming Adversity and Stress Injury Support) provides assessment and treatment for severe combat stress reactions and combat-related PTSD – with the goal of returning as many troops as possible to full duty, while also improving the quality of their lives and relationships. OASIS is a residential program located at Naval Base Point Loma in San Diego that offers a variety of evidence-based therapies, individual case management, recreation therapy, mind body medicine, family involvement, and peer support in a safe, secure, and therapeutic environment. To date, over 300 service members with recalcitrant PTSD have benefited from a broad variety of therapeutic experiences, such as “moral injury” group therapy (an existential group therapy program), meditation, yoga, anger management, sleep retraining, recreation therapy, acupuncture and therapeutic art.

The Navy Case Management team is comprised of over 220 specially trained licensed registered nurses (RNs) and social workers (LCSWs) committed to helping service members and their families understand their medical status and obtain required services throughout the entire care process. In 2014, Navy clinical case managers were assigned to 23 MTFs and provided services to over 23,000 patients, an 11 percent increase from 2013. Clinical case managers work as part of the recovery team along with recovery care coordinators (RCCs), nonmedical case managers (NMCs), and/or federal recovery coordinators (FRCs). Together these specialists help service members successfully navigate through the military medical system, which can be very complex.

Each and every suicide is a tragedy that has significant impact on families, shipmates and mission readiness. As part of the Department of the Navy’s commitment to suicide prevention,

Navy Medicine works closely with our line counterparts to reduce suicide risk by equipping Sailors with training, tools and practices to be psychologically healthy and resilient. Education and prevention initiatives train personnel to recognize stress in themselves and others and apply tools to manage and reduce its negative effects. Suicide prevention requires all of us to be vigilant and strengthen the connections with those around us. We recognize that personnel in the midst of professional or personal transitions may be particularly vulnerable to suicide so we continue to reinforce importance of reaching out to every Sailor, every day.

The Department of the Navy does not tolerate sexual assault and has implemented comprehensive programs that reinforce a culture of prevention, response, and accountability for the safety, dignity, and well-being of Sailors and Marines. Navy Medicine directly supports the Sexual Assault Prevention and Response (SAPR) program by ensuring the availability of sexual assault forensic exams (SAFE) at shore and afloat settings. We are focused on having proficient, confident and caring SAFE providers ready to perform 24/7 in meeting the short and long-term medical needs our victims of sexual assault. SAFE providers – including sexual assault nurse examiners, physicians, physician assistants, advanced practice nurse practitioners and independent duty corpsmen – are trained and available to ensure timely and appropriate medical care for sexual assault victims in all military platforms served by Navy Medicine. We currently have over 875 SAFE-trained providers in our MTFs and serving on operational platforms (surface, air, submarine and expeditionary).

Navy Medicine recognizes the importance of leveraging collaborative relationships with the Army and Air Force, as well as the Department of Veterans Affairs (VA), and other federal and civilian partners. Our partnerships foster a culture in which the sharing of best practices is fundamental to how we do business. These synergies will help all of us provide better care and

seamless services to our beneficiaries and be better positioned to address future health care challenges.

We work closely with the VA in assessing opportunities to collaborate cost effectively share services to meet the needs of service members and veterans. There are a full range of unique collaborations, sharing agreements and partnerships that benefit both Departments' beneficiaries. Our shared goal remains to seek opportunities to partner in local markets in order to measurably and mutually improve the access to health care services. We continue to see progress at the Captain James A. Lovell Federal Health Care Center (FHCC), the first demonstration of an integrated DoD/VA facility established in 2010. To ensure our personnel sustain their readiness and combat casualty skills, the FHCC and Stroger Hospital in Chicago initiated a new training partnership that embeds our Navy Medicine personnel in Stroger's busy trauma and burn units for one to two-month rotations. The Cook County Trauma Experience (CCTE) allows Navy physicians, nurses and corpsmen to work alongside Cook County trauma surgeons and gain valuable trauma care experience. An important focus area remains ensuring efficient health information technology to support providers' ability to deliver health care to both VA and DoD beneficiaries in the FHCC integrated environment. As statutorily required, a thorough evaluation of the FHCC, led by DoD and the VA, is currently underway to objectively assess the demonstration and consider options for both Departments moving forward.

We, along with the Army, Air Force and DHA, are working with DoD in support of the Defense Healthcare Management Systems Modernization (DHMSM) efforts to acquire and configure a new electronic health record (EHR). This EHR will be used in our MTFs, onboard naval vessels and in the field with the Marines forces. It is also fundamental to supporting our interoperability with the VA and private sector providers. Two Navy MTFs, Naval Hospital

Bremerton and Naval Hospital Oak Harbor, are expected to be part of initial operating capability (IOC) deployment.

Mission-Ready: The Navy Medicine Team

The Navy Medicine team, officers, enlisted personnel, government civilians and contractors, serves around the world delivering outstanding care and support services to Sailors, Marines, their families and all those entrusted to our care. This diverse and inclusive workforce is guided by the Navy Core Values of honor, courage and commitment. I am inspired by their contributions to ensuring that Navy Medicine, and those we serve, are mission-ready.

Active component (AC) and reserve component (RC) health professions recruiting and retention remains a priority and we are grateful for the Committee's support of important special pay and incentive programs. In FY2014, Navy Recruiting was successful in attaining 100 percent of the AC Medical Department officer goal and, due to high retention rates, overall officer manning reached 100 percent, a 10-year high. Some specialty shortages exist mainly due to billet growth and primarily in mental health specialties; however, we continue to see progress in psychiatry, clinical psychology and social work, with manning levels at 92 percent, 90 percent and 93 percent, respectively. We recognized the increasing demand for mental health services and have worked to recruit, train and retain personnel in these specialties.

Overall RC Medical Department officer manning is 95 percent; however, there are significant shortages in Medical Corps manning at 75 percent and shortfalls continue in orthopedic surgery, general surgery and anesthesiology. In FY2014, RC Medical Corps recruiting attained 67 percent of the accession goal relying heavily on the direct commission officer market. RC shortages are being addressed by continuing to offer targeted special pay and initiating retention

bonuses, loan repayment plans and monthly stipends for health care professionals pursuing a critical subspecialty.

Both AC and RC Hospital Corps enlisted recruiting was successful in FY2014 with both attaining 100 percent of goals. While overall manning is healthy in both components, challenges exist within the Fleet Marine Force Reconnaissance Corpsman specialty due to billet growth and a complex production pipeline.

Navy Medicine's federal civilian workforce provides stability and continuity within our system, particularly as their uniformed colleagues deploy, change duty stations or transition from the military. Throughout our system, they provide patient care and deliver important services in our MTFs, research commands, and support activities as well as serve as experienced educators and mentors, particularly for our junior military personnel. As of January 2015, our civilian end strength was 11,510, which is in line with our overall requirements, and we continue to emphasize the importance of attracting and retaining talented civilian personnel within Navy Medicine.

Navy Medicine's Reintegrate, Educate and Advance Combatants in Healthcare (REACH) Program is an important initiative that provides recovering service members mentors in our MTFs who provide them with hands-on training and learning experiences in health care. Additionally, recovering service members are connected with career coaches who offer career and educational guidance for a number of medical disciplines. The program also strengthens our personnel's continued care and support when they see the patients they have cared for and mentored become one of their colleagues. This positive feedback allows the REACH Program to continue to expand. This year, Naval Hospital Jacksonville joined Naval Medical Center Portsmouth, Naval Medical Center San Diego, Naval Hospital Camp Lejeune, Naval Hospital

Camp Pendleton, Walter Reed National Military Medical Center and Naval Health Clinic Annapolis as MTFs that participate in the REACH program. Last year, over 200 hundred wounded warriors have accessed services at our REACH sites. Since the inception of the program in March 2011, 58 students have transitioned to health care careers in Navy Medicine, other federal agencies or in the private sector.

Education and Training: Sustaining Excellence

Investments in education and training are critical for meeting our current requirements and preparing for future challenges. We support the continuum of medical education, training and qualifications that enable health services and force health protection. Our Naval Medical Education and Training Command (NMETC) is continuing to apply innovative, cost-effective learning solutions to fully leverage technology, partnerships and joint initiatives. These collaborative efforts were important as the DHA reached initial operating capability for medical education and training shared services. During calendar year 2014, 3,609 Sailors completed METC Basic Medical Technician Corpsmen Program at the joint Medical Education and Training Campus (METC) and earned the rating of hospital corpsman. They trained alongside Soldiers and Airmen in an outstanding academic environment. In addition, 2,249 hospital corpsmen trained in advanced technician programs at METC.

Navy's Medical Modeling and Simulation Training Program Management Office is co-located with the Air Force Medical Modeling and Simulation Training Office at Randolph Air Force Base, Texas. They are collaborating to address common approaches to simulation utilization to support training for care of combat injuries as well as training for high-risk populations such as the complicated obstetric and neonatal cohort. Shared projects included

identification of best airway trainer and identifying standardized training adjuncts to support trauma combat care courses for all three Services.

Our Surface Warfare Medicine Institute (SWMI) expanded its training for the Surface Force and Dive Independent Duty Corpsman (IDC) with two new state-of-the-art virtual reality medical simulation rooms and expanded access to training at the Bio-Skills Center at the Naval Medical Center, San Diego. This training is critical as we prepare high-performing hospital corpsmen for challenging assignments in the fleet and with the Marine Corps.

Graduate medical education (GME) is critical to the Navy's ability to train board-certified physicians and meet the ongoing requirement to maintain a tactically proficient, combat-credible medical force. Robust GME programs continue to be the hallmark of Navy Medicine. Despite the challenges presented by fiscal constraints, pressures due shifting priorities and new accreditation requirements, GME remains resilient and focused on the mission, with particular emphasis on readiness, value and jointness.

Our institutions and training programs continue to demonstrate outstanding performance under the Next Accreditation System of the Accreditation Council for Graduate Medical Education (ACGME). All Navy GME programs have now transitioned to the Next Accreditation System (NAS) and the three major teaching hospitals all successfully underwent Clinical Learning Environment Review (CLER) visits this year.

Strategic efforts to improve recruiting into undermanned specialty training programs over the past several years have been successful. We have had enough qualified applicants for previously challenging specialties such as neurology, neurosurgery, urology and radiation oncology to restore and maintain the required pipeline. Specialties that are still working to attract sufficient

qualified applicants are at the top of our priority list and include general surgery, family medicine and aerospace medicine.

In addition, this year family medicine training sites and billets were realigned consistent with our CONUS Hospital Optimization Plan. Navy GME restructured from six sites four and redistributed the inservice training billets among the remaining sites, reserving five outservice training billets per year for both PGY-1 and PGY-2 training as needed to maintain the pipeline during the transition.

Board certification is a universally recognized hallmark of strong GME. The five year average first time board certification pass rate for Navy trainees is 93 percent. Our board pass rates meet or exceed the national average in virtually all primary specialties and fellowships. Our Navy-trained physicians continue to demonstrate they are exceptionally well-prepared to provide care to all members of the military family and in all operational settings ranging from the field hospitals of the battlefield to the platforms that support disaster and humanitarian relief missions.

Research and Development: Driving Innovation

For over 75 years, Navy Medicine has conducted a global research and development (R&D) program that is currently executed through the Naval Medical Research Center (NMRC), its subordinate labs, numerous joint service initiatives and a well-established cooperative infrastructure of universities, industry, and other government agencies. The mission is focused on biomedical research supporting our operational forces and service members. These priorities include: traumatic brain injury and psychological health; medical systems support for maritime and expeditionary operations; wound management throughout the continuum of care; hearing restoration and protection; and undersea medicine.

NMRC and the seven subordinate laboratories (Naval Health Research Center, San Diego; Naval Medical Research Unit-SA, San Antonio; Naval Medical Research Unit-D, Dayton; Naval Submarine Medical Research Laboratory, Groton; Naval Medical Research Unit Two, Singapore; Naval Medical Research Unit Three, Cairo, and Naval Medical Research Unit Six, Lima) collectively form the NMR&D Enterprise that is the Navy's and Marine Corps' premier biomedical research, surveillance/response, and public health capacity building organization. Over 1,600 dedicated professional, technical, and support personnel are focused on force health protection and enhancing deployment readiness of DoD personnel world-wide. Earlier this year, I visited our Naval Medical Research Unit Three in Cairo, the oldest overseas military medical research facility and one of the largest research laboratories in the North Africa-Middle East region. I had an opportunity to see firsthand the outstanding research being conducted and the importance of our enduring partnerships in this important region.

Ongoing research and development ensures service members' health is better protected, operational tempo is more effectively performed, and the rehabilitation of the ill and injured is continuously improved. In addition, NMR&D is an active participant in global health security efforts and focuses on mitigating the spread of antimicrobial resistance, emerging and re-emerging infectious diseases, including EVD, malaria, and Middle East Respiratory Syndrome caused by a Coronavirus (MERS CoV). NMR&D Enterprise labs work with partners around the world to enhance detection and bio-surveillance capabilities, to improve reporting systems and to build host-country response capacity. In collaboration with the Walter Reed Army Institute of Research (WRAIR), our experts are engaged in military malaria research, including the development of candidate malaria vaccines.

Active collaboration with industry is important given the dual-use nature inherent in military medicine research. In 2014, Navy Medicine executed almost 100 new public-private Cooperative Research and Development Agreements (CRADA) partnerships leveraging internal and external capabilities and resources toward accelerating the development of new biotechnologies

Navy Medicine professional training activities continue to satisfy all requirements that exist for accreditation of post-graduate health care training programs in which new medical, dental, nursing and allied health professionals gain advanced skills. An important component that supports the accreditation of our post-graduate health care training programs is through trainee participation in the Clinical Investigation Programs (CIPs) based at our teaching MTFs. The conduct and findings from these investigations, in addition to satisfying training requirements, also support the need to develop new knowledge and advanced interventions to better treat service members with combat injuries, to prevent training injuries, and to provide better medical care to our health care beneficiaries. With \$3.6 million funded by Navy Medicine in FY 2014 and an additional \$4 million in external grants received for clinical research, our teaching MTFs conducted a total of 612 clinical research projects which resulted in 296 scientific publications and 701 scientific presentations. These clinical research projects directly improve the delivery of quality medical care at the MTF sites. The findings of the clinical research projects were published in high-impact, peer-reviewed medical and scientific journals and were presented at both national and international scientific meetings.

Way Forward

Our center of gravity is readiness. We continue to ensure that our Sailors and Marines are medically ready to successfully execute their demanding missions, whether deployed or ashore.

Our operating forces are supported by a highly trained, innovative and cohesive Navy Medicine team whose primary focus is taking care of them, their families and others entrusted to our care. This mission – our obligation – is what makes us unique. We continue to make steady progress; however, all of us recognize the formidable work ahead during this unprecedented period of transformation in health care. I am confident Navy Medicine will meet these challenges with commitment, skill and professionalism.

LT. GEN. TRAVIS OPENING STATEMENT

Mr. FRELINGHUYSEN. Thank you, Admiral.

General Travis.

General TRAVIS. Yes, sir.

Mr. FRELINGHUYSEN. Welcome again.

General TRAVIS. Good morning. Chairman Frelinghuysen, Ranking Member Visclosky, distinguished members of this subcommittee, thanks again for inviting us to appear before you today, the last time together, I might add, and that is a meaningful moment for us.

Since 9/11, the Air Force has accomplished over 200,000 patient movements in our Aerovac system, including 12,000 critical care patients. The very high, unprecedented survival rate for U.S. casualties once they enter the theater medical system is a reflection of our combined commitment to the highest quality care of our patients.

Critical care transport teams were developed by the Air Force in the late 1990s and have become the international benchmark for safe ICU-level patient movement, dramatically changing how military operates in a deployed setting. We have adapted that capability to meet the Joint Staff requirements for intratheater and route tactical critical care transport of fresh, perhaps underresuscitated or post-operative ICU-level casualties via rotary and tactical aircraft, many from point of injury.

Our medical response teams include rapid deployable modular and scalable field hospitals that provide immediate care within minutes of arrival. The expeditionary medical support health response teams, which is an evolution of our combat proven EMEDS teams, are now being deployed across our Air Force. They provide immediate emergency care within minutes, surgery and intensive critical care within 6 hours, and full ICU capability within 12 hours of arrival.

Because of our experience with EMEDS in support of Operation United Assistance in Liberia, an Air Force medical team quickly deployed and set up the first healthcare worker Ebola virus disease treatment center utilized by the U.S. Public Health Service.

Our medical forces, as my partners have said, must stay ready through their roles in patient-centered, full tempo healthcare services that ensure competency, currency, and satisfaction of practice while fostering innovation. We can't separate care at home from readiness, as what we do and how we practice at home translates into the care we provide when we deploy, and we have proven we do it well.

In addition, for well over a decade we have had a cadre of our best physicians, nurses, and technicians embedded in world-class Centers for Sustainment of Trauma and Readiness Skills facilities, such as the University of Maryland's Baltimore Shock Trauma, University of Cincinnati, and St. Louis University, in order to train trauma and critical care transport teams before they deploy.

We are now committed to expanding training opportunities for nonsurgical and trauma-related skills to ensure all of our personnel remain ready and current, providing hands-on patient care of greater volume and complexity than we normally see in our facili-

ties. Our first course was recently held at Nellis Air Force Base, Nevada, in cooperation with University Medical Center in Las Vegas, with more than a dozen classes to follow in 2015. This will further expand the system we have in place to identify training requirements and track completion of training events down to the individual.

I leave the Air Force in June after 39 years. In the Air Force I grew up in, the operators were primarily pilots and navigators. There are many more types of operators these days, as air power is projected through the various domains in very new ways.

Air Force Medicine is adapting and innovating to better support the airmen who safeguard this country 24/7, 365 days a year. In that regard, Air Force Medicine is now focusing on human performance. Our AFMS strategy embraces this, and to focus on this as a priority we recently changed our vision to state our supported population is the healthiest and highest-performing segment of the Nation by 2025. This vision is focused on health rather than health care and is connected to the imperative to assure optimum performance of these exquisitely skilled airmen. We have begun either embedding or dedicating medics to directly support missions such as special operations, remotely piloted aircraft, intel, or other high-stress career fields, and we have had a clearly positive impact on these airmen, their mission effectiveness, and their families.

Patient safety and quality care are foundational to supporting our beneficiaries in their quest for better health and improved performance. In order to improve safety and quality, we are committed as part of the military health system to the high reliability healthcare journey, adopting safety culture and practices similar to other high reliability sectors, such as aviation, something with which we are very familiar.

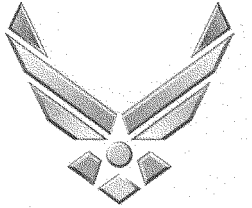
This is a journey being undertaken by healthcare systems across the Nation. The AFMS joins with our Navy and Army partners as we transform into a fully integrated system that consistently delivers quality health care while improving the health and readiness of our force.

With our vision of health and performance in mind, we are committed to providing the most effective prevention and best possible care to a rapidly changing Air Force, both at home and deployed. I am confident that we are on course to ensure medically fit forces, provide the best expeditionary medics on the planet, and improve the health of all we serve to meet our Nation's needs.

Thank you again for your strong support of Air Force Medicine and for the opportunity to provide further information today.

[The written statement of Lieutenant General (Dr.) Travis follows:]

United States Air Force



Presentation

Before the House Appropriations
Committee, Subcommittee on Defense

Defense Health Programs

Witness Statement of
Lieutenant General (Dr.) Thomas Travis,
Surgeon General, USAF

April 14, 2015

Not for publication until released by the House Appropriations
Committee, Subcommittee on Defense

Defense Health Programs

April 14, 2015



BIOGRAPHY



UNITED STATES AIR FORCE

LIEUTENANT GENERAL (DR.) THOMAS W. TRAVIS

Lt. Gen. (Dr.) Thomas W. Travis is the Surgeon General of the Air Force, Headquarters U.S. Air Force, Washington, D.C. General Travis serves as functional manager of the U.S. Air Force Medical Service. In this capacity, he advises the Secretary of the Air Force and Air Force Chief of Staff, as well as the Assistant Secretary of Defense for Health Affairs on matters pertaining to the medical aspects of the air expeditionary force and the health of Air Force people. General Travis has authority to commit resources worldwide for the Air Force Medical Service, to make decisions affecting the delivery of medical services, and to develop plans, programs and procedures to support worldwide medical service missions. He exercises direction, guidance and technical management of a \$6.6 billion, 44,000-person integrated health care delivery system serving 2.6 million beneficiaries at 75 military treatment facilities worldwide.



General Travis entered the Air Force in 1976 as a distinguished graduate of the ROTC program at Virginia Polytechnic Institute and State University. He was awarded his pilot wings in 1978 and served as an F-4 pilot and aircraft commander. The general completed his medical degree from the Uniformed Services University of the Health Sciences School of Medicine, where he was the top Air Force graduate, and in 1987 he became a flight surgeon. For more than three years, General Travis was Chief of Medical Operations for the Human Systems Program Office at Brooks Air Force Base, Texas. He later served as the Director of Operational Health Support and Chief of Aerospace Medicine Division for the Air Force Medical Operations Agency in Washington, D.C.

Prior to his current assignment, Gen Travis served as Deputy Surgeon General, Headquarters U.S. Air Force, Washington, D.C. The general has commanded the U.S. Air Force School of Aerospace Medicine; 311th Human Systems Wing at Brooks AFB; Malcolm Grow Medical Center and 79th Medical Wing, Andrews AFB, Md.; and the 59th Medical Wing, Wilford Hall Medical Center, Lackland AFB, Texas. He also served as the Command Surgeon, Headquarters Air Force District of Washington, and Command Surgeon, Headquarters Air Combat Command, Langley AFB, Va. He is board certified in aerospace medicine. A command pilot and chief flight surgeon, he has more than 1,800 flying hours and is one of the Air Force's few pilot-physicians. He has flown the F-4, F-15 and F-16 as mission pilot and, the Royal Air Force Hawk as the senior medical officer and pilot.

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EDUCATION

1976 Distinguished graduate, Bachelor of Science degree in biology, Virginia Polytechnic Institute and State University, Blacksburg, Virginia
 1980 Master of Science degree in physiology, Virginia Polytechnic Institute and State University, Blacksburg, Virginia
 1986 Doctor of Medicine degree, Uniformed Services University of the Health Sciences School of Medicine, Bethesda, Maryland
 1991 Master of Science degree in public health, University of Texas Health Science Center, San Antonio, Texas
 1996 Air War College, by correspondence
 1999 Distinguished graduate, Master of Science degree in national resource strategy, Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D.C.
 2000 Medical Capstone, Walter Reed Army Medical Center, Washington, D.C.
 2003 Federal Health Care Executive Course, Interagency Institute, George Washington University, Washington, D.C.
 2005 Capstone, Fort Lesley J. McNair, Washington, D.C.

ASSIGNMENTS

1. April 1977 - March 1978, student, undergraduate pilot training, Williams AFB, Arizona
2. May 1978 - August 1978, student, fighter lead-in training, Holloman AFB, New Mexico
3. August 1978 - February 1979, student, F-4 Replacement Training Unit, MacDill AFB, Florida
4. February 1979 - June 1982, F-4 aircraft commander, 334th Tactical Fighter Squadron, Seymour Johnson Air Force Base, North Carolina
5. August 1982 - May 1986, medical student, Uniformed Services University of the Health Sciences School of Medicine, Bethesda, Maryland
6. July 1986 - June 1987, internship, Andrews AFB, Maryland
7. July 1987 - July 1990, F-15 pilot physician, Langley AFB, Virginia
8. August 1990 - June 1992, resident in aerospace medicine, Brooks AFB, Texas
9. July 1992 - April 1996, Chief, Medical Operations, Human Systems Program Office, Brooks AFB, Texas
10. April 1996 - June 1998, senior medical officer pilot, Royal Air Force School of Aviation Medicine, Farnborough, England
11. July 1998 - June 1999, student, National Defense University, Industrial College of the Armed Forces, National Defense University, Fort Lesley J. McNair, Washington, D.C.
12. July 1999 - July 2001, Director, Operational Health Support, and Chief, Aerospace Medicine Division, Air Force Medical Operations Agency, Washington, D.C.
13. July 2001 - February 2003, Commander, U.S. Air Force School of Aerospace Medicine, Brooks AFB, Texas
14. February 2003 - September 2005, Commander, 311th Human Systems Wing, Brooks City-Base, Texas
15. September 2005 - May 2006, Commander, 89th Medical Group, Andrews AFB, Maryland
16. May 2006 - August 2006, Command Surgeon, Headquarters Air Force District of Washington, Bolling AFB, D.C., and Commander, 79th Medical Wing, Andrews AFB, Maryland
17. September 2006 - August 2007, Command Surgeon, Headquarters Air Combat Command, Langley AFB, Virginia
18. August 2007 - November 2010, Commander, 59th Medical Wing, Lackland AFB, Texas
19. November 2010 - July 2012, Deputy Surgeon General, Office of the Surgeon General, Headquarters U.S. Air Force, Washington, D.C.
20. July 2012 - present, Surgeon General, Office of the Surgeon General, Headquarters U.S. Air Force, Washington, D.C.

FLIGHT INFORMATION

Rating: Command pilot and chief flight surgeon
 Hours: More than 1,800
 Aircraft flown: F-4, F-15, F-16 and Royal Air Force Hawk

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MAJOR AWARDS AND DECORATIONS

Distinguished Service Medal
Legion of Merit with oak leaf cluster
Meritorious Service Medal with four oak leaf clusters
Aerial Achievement Medal
Air Force Commendation Medal
Joint Service Achievement Medal
Combat Readiness Medal
Air Force Recognition Ribbon

OTHER ACHIEVEMENTS

1994 Julian E. Ward Memorial Award, Aerospace Medical Association
1994 Unger Literary Award, Society of U.S. Air Force Flight Surgeons
1995 Paul W. Myers Award for outstanding contributions to Air Force medicine, Air Force Association
2003 Stewart Lecturer, Royal Aeronautical Society
2007 Marie Marvingt Award, French Society of Aerospace Medicine
2007 George E. Schafer Award, Society of USAF Flight Surgeons
2008 John D. Chase Award for Physician Executive Excellence, Association of Military Surgeons of the United States

PROFESSIONAL MEMBERSHIPS AND ASSOCIATIONS

Academician, International Academy of Aviation and Space Medicine
Member and former President, Society of U.S. Air Force Flight Surgeons
Member and former President, International Association of Military Flight Surgeon Pilots
Fellow, Aerospace Medical Association
Fellow and former Aerospace Medicine Regent, American College of Preventive Medicine
Life member, Association of Military Surgeons of the United States
Order of the Daedalians
Alpha Omega Alpha Honor Medical Society

EFFECTIVE DATES OF PROMOTION

Second Lieutenant June 2, 1976
First Lieutenant December 2, 1978
Captain February 25, 1982
Major February 25, 1988
Lieutenant Colonel February 25, 1994
Colonel May 31, 1998
Brigadier General September 1, 2004
Major General June 2, 2007
Lieutenant General July 13, 2012

(Current as of October 2013)

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Chairman Frelinghuysen, Ranking Member Visclosky, and distinguished members of the Subcommittee, thank you for inviting me to appear before you today. After more than 13 years of war, in which the Military Health System (MHS) attained the lowest died-of-wounds rate and the lowest disease/non-battle injury rate in history, the Air Force Medical Service (AFMS) is envisioning future conflicts and adjusting our concepts of operations to prepare to provide medical support in situations that could be very different than what we have faced in the current long war. Among many efforts, we are focusing on en-route care to include aeromedical and critical care evacuation, expeditionary medical operations, and support to personnel during combat operations. Future contingencies may require longer transport times of more acute casualties without the benefit of stabilization in fixed facilities, as we have had in Iraq and Afghanistan. We have to consider worst case scenarios, which will prepare us well for less challenging circumstances. By enhancing clinical skills through partnerships with busy, high acuity civilian medical centers (such as our training programs in Baltimore, Cincinnati, St. Louis, and, most recently, Las Vegas), regular sustainment training for all team personnel, and developing new medical capabilities, we are committed to being just as ready or more ready at the beginning of the next war as we are in the current war. Our Nation expects no less – and our warriors deserve no less.

Since 9/11, we have logged over 200,500 patient movements, including 12,000 critical care patients. The 96% survival rate for U.S. casualties once they enter the Theater Medical System is a reflection of our commitment to the highest quality of care for our patients. As part of a remarkable Joint expeditionary health care system, deployed care has dramatically evolved during the wars and produced advances in scientific knowledge now in use across the U.S. to improve trauma outcomes.

Critical Care Air Transport Teams (CCATT) were developed in the late 1990s and have become the international benchmark for safe ICU-level patient movement. The AFMS adapted that capability to create the Tactical Critical Care Evacuation Team (TCCET), which consists of teams of medical personnel and equipment with specialized skills and training to meet Joint Staff requirements for intra-theater en-route tactical critical care transport of fresh and post-operative ICU-level casualties via rotary-wing or other tactical aircraft. Additionally, we recently developed a capability called Enhanced TCCET

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(TC CET-E), which is capable of short notice deployments performing surgical stabilization using interior of aircraft if required and supporting long-range patient movement. We have teams poised and ready to launch on C-130s or C-17s in the EUCOM/AFRICOM AOR today.

Our health response teams now include rapidly deployable, modular, and scalable field hospitals that provide immediate care within minutes of arrival. The Expeditionary Medical Support Health Response Teams (EMEDS-HRT), an evolution of our combat-proven and scalable Expeditionary Medical Support (EMEDS) teams, are now being deployed across our Air Force. They provide immediate emergency care within minutes of arrival, surgery and intensive critical care units within six hours, and full ICU capability within 12 hours of arrival. The HRT also helps tailor clinical care to the mission, adding specialty care such as OB-GYN and pediatrics for humanitarian assistance or disaster relief missions. This evolved expeditionary HRT capability has been successfully deployed and is on track to replace our previous generation of EMEDS by 2016.

In support of OPERATION UNITED ASSISTANCE in Liberia, an Air Force medical team quickly deployed and set up the first health care worker Ebola Virus Disease (EVD) treatment center utilized by the U.S. Public Health Service. The Air Force also provided 24 medical personnel to the Healthcare Worker Training Program, training over 1,500 health care workers in the proper procedures in dealing with Ebola infected patients. In support of Health and Human Services within the continental United States, the AFMS provided 12 personnel for USNORTHCOM's rapid response team that could respond to any city within the U.S. Additionally, the Air Force and USTRANSCOM developed the first Transportable Isolation System (TIS) to provide a capability to transport multiple contagious patients while mitigating/minimizing the risk of exposure to the aircraft and aircrew. While thankfully not needed in the recent EVD response, this is a capability which could prove useful in future infectious disease contingencies around the globe or here at home.

Our medical forces must stay ready through their roles in patient-centered, full-tempo health care services that ensure competence, currency, and satisfaction of practice and foster innovation. In support of the MHS Quadruple Aim of Readiness, Better Health, Better Care, and Best Value; the AFMS is

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incorporating best practices such as Patient-Centered Medical Home (PCMH) and advanced surgical technology and techniques to ensure our staffs have the needed tools to care for patients at home or deployed. We can't separate care at home from readiness, as what we do and how we practice at home translates into the care we provide when we deploy. We have to augment our experience and training to be truly ready, as there is undoubtedly a difference between being prepared for downrange combat casualties and the type of every day medical care provided at in-garrison medical treatment facilities (MTF). We have a mature, combat-proven system for augmenting the clinical experience of our teams.

For well over a decade we have had a cadre of our best physicians, nurses, and technicians embedded in world-class Center for Sustainment of Trauma and Readiness Skills (C-STARS) facilities such as the University of Maryland's Baltimore Shock Trauma, University of Cincinnati, and St. Louis University. Hundreds of our medics have had elite trauma and critical care training through these facilities and remain prepared to deploy anywhere needed; whether to the AF-led theater hospitals in the CENTCOM AOR, as CCATT team members, or to whatever location U.S. forces are deployed. We remain committed to the relationship we have with these civilian facilities, and rather than reducing training platforms as we come home from the current war, we intend to expand training opportunities to keep skills current and our team ready.

We are committed to expanding training opportunities for non-surgical and trauma related skills to ensure all our personnel remain ready and current. The AFMS continues its transition to a tiered, centrally managed training platform called Sustained Medical and Readiness Training, or SMART, which provides hands-on patient care of greater volume and complexity. Our first SMART course began recently at Nellis AFB, Nevada, in cooperation with the University Medical Center in Las Vegas, with plans for more than a dozen additional classes with students from all over the Air Force in the next year. As SMART requirements expand and the program matures, other local and regional partnerships will be developed to meet AFMS training needs, and we will establish a training "battle-rhythm" to provide deployable Airmen hands-on, high acuity care opportunities on a regular basis. This will further expand

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the system we have in place to identify training requirements and track completion of training events down to the individual.

Collaboration with the Department of Veterans Affairs (VA) through sharing agreements and joint initiatives enhances our providers' clinical currency, saves federal dollars, and maintains readiness. As a result of our efforts to encourage participation in the DoD-VA Resource Sharing Program, we now have 49 Air Force-VA sharing agreements with 10 Master Sharing Agreements covering all available clinical services at nine MTFs. Our relationship with the VA extends to clinical currency opportunities for both entities.

One recently developed venture of this nature is with the Buckeye Federal Healthcare Consortium in Ohio. This consortium promotes health care resource sharing between Wright-Patterson AFB Medical Center and VA medical facilities in Dayton, Columbus, and Cincinnati, serving over 150,000 enrolled veterans. A sharing agreement with Veterans Integrated Service Network 10, which supports veterans in three states, is currently being reviewed. Air Force-VA sharing agreements enhance access to specialty care for VA patients, allow VA physicians to use the MTF's operating suites, and provide a great venue for our Air Force medics to hone their readiness skills in a high-acuity environment.

The United States Air Force's core missions are Air and Space Superiority, ISR (Intelligence, Surveillance, and Reconnaissance), Rapid Global Mobility, Global Strike, and Command and Control. These are almost identical (but in different terms) to the missions the USAF had in 1947. But we now do these missions in three domains: air, space, and cyberspace. In the Air Force I grew up in, the "operators" were primarily pilots and navigators. There are many more types of "operators" these days, as Air Power is projected through the various domains in very new ways. Air Force Medicine is adapting and innovating to better support the Airmen who safeguard this country 24/7, 365 days a year. In that regard, Air Force Medicine is now focusing on human performance. This is not a huge shift for us. Since the AFMS began in 1949, Air Force medics have focused on occupational and population health and prevention. We are simply taking it to the next level. Our AFMS strategy embraces this, and to focus on this as a priority, we recently changed the AFMS vision to state: *"Our Supported Population is the*

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Healthiest and Highest Performing Segment of the U.S. by 2025.” This goal is focused on health rather than health care, and is clearly connected to the imperative to assure optimum performance of Airmen. Every Airman (or other-Service member) has human performance demands placed on them by virtue of their operational and mission tasks – and these demands have changed, rather than decreased, due to the technologies employed in current mission environments. This strategy will help to change culture, ultimately enabling our Airmen to not only strive to prevent or ameliorate disease, but to promote performance.

In view of our evolving Air Force, the AFMS is evolving to ensure that as many of our supported Service members are available to their commander as possible, able to perform the exquisite set of skills that are now required of them. Health in the context of mission equates to performance, and every medic or health care team must know how the mission might affect the health of the individual or unit, and how medical support affects the mission. I think this is just as relevant for other beneficiaries, to include family members and retirees, who also have performance goals in their day-to-day activities. Toward that goal, we have begun either embedding or dedicating medics to directly support missions such as special operations, remotely piloted aircraft, intel, and explosive ordnance disposal (EOD), which have had a clearly positive impact on those Airmen, their mission effectiveness, and their families. We are moving rapidly to make this “mission specific” support a more wide-spread practice.

At the clinic level, our intent is to provide customized prevention, access, and care for patients, recognizing specific stresses associated with career specialties. Our goal is to prevent physical or mental injuries where possible, and if unable to prevent, provide rapid access to the right team for care and recovery to full performance. As a result, mission effectiveness and quality of life should improve, and long-term injuries or illnesses should be mitigated to provide for a healthier, more active life, long after separation or retirement. Concordantly, long-term health care costs and disability compensation should also decrease.

Patient safety and quality care are foundational to supporting our beneficiaries in their quest for better health and improved performance. In order to improve both safety and quality we are committed,

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as part of the MHS, to become a high reliability health care system. This is a journey being undertaken by health care systems across the country. To achieve this goal we need a focused commitment by our leadership and staff, instilling a culture of safety and quality, constant measurement of the care we provide combined with robust process improvement at all levels. These key tenets will enable the AFMS to achieve the principles of high reliability seen in aviation and nuclear communities, and are aimed at eliminating medical errors. To that end, we are committed to strengthening our performance improvement programs and training all medics as “process improvers.” This will require advanced training for key leaders and staff, driving process improvement activities from the executive suite down to the front lines of our clinics and wards. A culture of safety requires that all AFMS members are empowered and understand their responsibility to report any unsafe condition or error, with the intent to make improvements and raise awareness across the enterprise.

In support of Human Performance and En-Route Care initiatives, our C-STARS faculty and civilian partners are comparing aeromedical evacuation timing and combat casualty outcomes to help medical teams determine ideal timing of evacuation to optimize treatment successes. While we have been very proud of our accomplishments in quickly transporting patients to higher levels of care, the decision of when to move a patient must be data-driven, and our experience in the current long war should help guide such future decisions, and may have great relevance in anti-access/area denial scenarios in future wars.

We also focus research on better care and health for Air Force families. Over the last few years we have teamed up the Wright-Patterson AFB Medical Center with the Nationwide Children’s Hospital and Dayton Children’s Hospital in Ohio to identify autism spectrum disorder susceptibility genes, rare variants, and interventions to enable early intervention and treatment. This endeavor continues to support development of the Central Ohio Registry for Autism, which will enroll 150 families in the next phase of patient studies through September 2015, 50 percent of which are military families. Early intensive behavioral intervention with Applied Behavior Analysis (ABA) therapy offers promise. According to research, up to 20 percent of children diagnosed with autism before age 5 who receive ABA therapy

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“recover” from the condition. There are many AF families who could potentially benefit from this type of treatment, and we will continue this important collaborative effort.

With more than one million patients enrolled, Patient-Centered Home (PCMH) has made significant progress toward greater continuity of care and improved patient and provider satisfaction. Over the last year, patients have seen their assigned provider team 92 percent of the time, our highest continuity rating thus far. PCMH has increased primary care manager same day access, reduced local emergency room utilization, decreased the need for specialty care referrals, and improved patient experiences resulting in a remarkable health care satisfaction rating over 95 percent.

In concert with PCMH is our ongoing secure messaging capability called MiCare. The Air Force has now implemented MiCare at all 75 of its MTFs worldwide and averages over 220,000 messages per month. As of December 2014, there are over 412,000 Air Force registered users, allowing patients and providers to communicate on a secure network regarding non-urgent health care concerns. The network also allows our patients to view their health care record, make appointments, renew prescriptions, and receive important preventive care messages from their PCMH team. A recent secure messaging satisfaction survey demonstrated that 97 percent of over 13,000 survey respondents were satisfied with their secure messaging transaction and more than 86 percent agreed it helped them avoid a trip to an emergency room or an MTF for a medical problem.

Another important initiative concerning in-garrison care is our continued support of a robust Tele-Health program. Project ECHO (Extension for Community Health Outcomes) has evolved to cover eight long-term health care concerns and services to include complicated diabetic management, chronic pain management, traumatic brain injury, behavioral health, acupuncture, addiction, neurology, and dental disease. This Tri-Service effort builds specialty care capacity into a primary care clinic and participating ECHO providers comment on their increased clinical knowledge and confidence in patient management of these complicated diseases. Providers report an overall 95 percent approval rating in the ECHO’s value to their practice. ECHO fits seamlessly into the PCMH model of health care delivery. During 2014, ECHO saw technological improvement by moving from the traditional VTC suite to the providers’

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desktop web-based video platform. In effect, we are using “new” technology to bring back the “old fashioned” curbside consult. Based on the University of New Mexico model, when fully matured, ECHO is projected to reduce referrals to the Tricare network across 21 specialties over a seven-year expansion plan. This has the potential to enhance team-based care for chronic disease by incorporating the specialist into the team via digital connections.

The AFMS currently has two major health promotions initiatives. First, we’re rolling out our “Health care to Health” program at six installations to better address adult and childhood obesity through proven patient and parent-focused interventions. Secondly, we’re implementing a nutrition therapy Tele-Wellness at 15 smaller MTFs. This will allow those stationed at smaller locations access to one of our 31 dietitians stationed around the globe. We’re also developing our Group Lifestyle Balance (GLB) and 5210 Healthy Military Children programs. GLB addresses the fastest growing problem facing our population today, pre-diabetes. It is geared towards helping participants lose five to seven percent of their body weight and increasing their physical activity level. The 5210 Healthy Military Children program is a primary prevention approach to childhood obesity with consistent messaging about healthy habits.

The wellness and resilience of our deploying Airmen remains a top AFMS priority. We have a new and improved Pre-Deployment Mental Health Training module designed to enhance an Airman’s understanding of combat related stresses and how to mitigate the risk factors. The training has four platforms tailored to different target audiences -- leaders, medical and mental health providers, chaplains, and all other Airmen. Our redeploying Service members whose deployed role poses an increased risk for posttraumatic stress have been attending a two-day program at our Deployment Transition Center at Ramstein Air Base, Germany. Research demonstrates this initiative has reduced reported Post-Traumatic Stress (PTS), interpersonal conflict, and problematic alcohol use in our returning Service members. Each Airman is screened for PTS several times per deployment. When signs of PTS are detected, evidence-based treatments are provided in our MTFs. PTS rates continue to be low across the Air Force due in part to these combined efforts.

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Airmen account for 14% of Service member traumatic brain injuries (TBI), only two percent of these cases are deployment related and 86% of those are mild concussion injuries. Though the incidence of TBI is low in the Air Force, we remain committed to providing quality care for our Airmen who have sustained these injuries. Our Air Force TBI clinic at Joint Base Elmendorf-Richardson maintains cross-Service support to optimize care within the DoD. For our more difficult cases we partner with the National Intrepid Center of Excellence for Psychological Health and TBI and Intrepid Spirit Satellites.

Air Force suicide rates remain lower than the U.S. and DoD average, but suicide awareness and prevention is a major concern for all Air Force leaders. Identified suicide risk factors continue to be relationship issues, financial problems, and legal problems. Our most “at risk” career fields continue to be security forces, aircraft maintenance, and intelligence. This year’s suicide prevention efforts will transition from computer-based training to a more personalized, face-to-face delivery method. Supervisors and other mentor-leaders will facilitate small group discussions allowing more direct participation by Airmen. This will leverage our “Wingman culture” which is key to identifying and assisting Airmen. We are also adding an annual Frontline Supervisor Training refresher for our at-risk career field leaders to ensure their mentoring and awareness skills remain honed. Timely intervention utilizing counseling techniques learned during these training just may prevent future tragedies. Counseling services are available to our Airman and their families from chaplains, Military Family Life Consultants at the Airman and Family Readiness Centers, mental health providers working in primary care settings, and of course, evaluation and therapy delivered in our mental health clinics. Suicide prevention in the Air Force relies on leaders and communities working together to bolster Airmen resilience and create a supportive environment where seeking help early is seen as a strength. We know what we do prevents some suicides, but we are not satisfied and will continue to focus hard on this issue.

We remain vigilant in our efforts to prevent hearing loss among Service members exposed to high intensity occupational noise. Often these exposures result in auditory and balance injuries, to include tinnitus (ringing in the ears) and hearing loss, currently the clear number one and two VA reimbursable

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health concerns. The DoD Hearing Center of Excellence (HCE) is a Tri-Service/VA collaboration with the Air Force serving as the lead agent. The HCE aim is to improve the auditory health of beneficiaries.

This year the HCE will implement the DoD Comprehensive Hearing Health Program designed to prevent and ultimately eliminate noise-induced hearing loss. A lofty but possible goal with outreach and awareness essential to making this work. Identification of hazardous noise sources, effective and consistent hearing conservation methods, as well as monitoring hearing and proper hearing protection use are all education topics important to the HCE. This year also marks the beginning of the Baseline Audiogram (hearing test) at Accession Program for all Air Force members. This initiative ensures Airmen have a documented hearing screening prior to initial noise exposure, allows comparison of hearing ability over the course of a military career, provides better tracking ability of hearing loss trends throughout our Air Force, and when necessary, provides the capability to remove Airmen from hazardous noise exposure.

In 2015, the HCE will continue to develop the Joint Hearing Loss and Auditory System Injury Registry, a comprehensive effort to identify and track the incidence and care of auditory and balance system injury, facilitate research, develop best practices, and better educate Service members and veterans. The registry will improve the quality, reliability, and continuity of health care for Service members while they're on active duty and once they've transitioned to the VA. In addition to registry efforts, the HCE is focused on allowing Active Duty hearing conservation documentation to be shared with the VA to allow a smooth transition and continuity of care across the two departments.

Looking ahead, the AFMS is committed to working with our sister Services in continuing to shape the Defense Health Agency (DHA). We are optimistic that our efforts will result in efficiencies and cost savings across the MHS, as well as provide common solution sets to enhance interoperability at home and in a deployed setting. The ten shared services, such as IT and logistics, will standardize processes and reduce duplication across the MHS. Another example of our integration across the medical Services is our focus on enhanced multi-Service markets, or eMSMs, where we have large beneficiary

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populations and can target operational and business efficiencies, such as in the National Capital Region, Tidewater, San Antonio, Colorado Springs, Puget Sound, and Hawaii markets.

The AFMS joins with our sister Services as we transform, as part of the MHS, into a fully integrated system that consistently delivers quality health care while improving the health and readiness of our forces. With our vision of health and performance in mind, we are committed to providing the most effective prevention and best possible care to a rapidly changing Air Force, both at home and deployed. I am confident that we are on course to ensure medically fit forces, provide the best expeditionary medics on the planet, and improve the health of all we serve to meet our Nation's needs. I thank the Committee for your continued strong support of Air Force medicine and the opportunity to provide further information in this session.

REMARKS OF CHAIRMAN FRELINGHUYSEN

Mr. FRELINGHUYSEN. Thank you, General.

And before I yield to Mr. Carter, who was first in the committee hearing, this may not be politically correct, but I am in awe of the men and women that work for you and have worked for you for decades, from the battlefield, when they are a special operations unit, where every person in that unit has some degree of medical training, they could look after their brothers, to the transport issue, the things that you have done are incredible.

I was at Bethesda yesterday, and the patient count is down, but the lives you put back together, and I think the committee recognizes this, for some of these young people and not so young, whether it is physical or mental, the things that you do collectively we are hugely appreciative of. I know we are the resource committee, but we are also very thankful for the things that we have invested in that you have done some remarkable things with.

General Carter—or General Carter, yes. You are the general from Fort Hood.

MEDICAL CARE DURING DEPLOYMENTS

Mr. CARTER. No. No, sir. No, sir. I know some, though.

General Dempsey once stated that we don't walk out on our forward operating bases unless we have the confidence that if we are wounded we have someone there who can help care for us and evacuate us back to the next level of treatment.

As you know, planning and employing echelons of medical care is vital in setting the conditions for our service men and women to provide the best possible care for those we put in harm's way. There is overwhelming evidence for how successful our military has been at saving lives in large-scale deployments to Iraq and Afghanistan. I believe that we call that the golden hour.

Now, as we wind down operations in Afghanistan and Iraq, how are we transforming our echelons of care without reducing the quality of care? We are deploying small contingencies with less medical assets to a lot of new places. Are we able to replicate the quality of combat care we have in places like Afghanistan?

Can you walk us through the care our troops would receive if they suffered a critical injury as a result of, say, a vehicle rollover, a range mishap in a place like Ukraine or Romania? Can you speak to the process of establishing and operating echelons of care in areas where we have recently expanded other operations, Africa and Eastern Europe?

Are there any constraints on medical resources which could potentially result in us becoming overly reliant on host nations? In other words, does that golden hour extend to small units scattered all over the world? And how do you do it?

General HOROHO. I will start, sir, but it is kind of a joint response when we are looking at this. When we look at what we are doing in Europe there is a tremendous amount of training that is being done in Grafenwoehr in really looking at how do we capitalize on the capabilities that we have in the U.S., but with our coalition partners, so that we have a certain standard level of care. We are also incorporating telecapabilities into some very remote

areas so that we take expertise from our bricks and mortar and we extend that through IT systems to get that knowledge to our young combat medics and combat lifesavers so that we are having a larger virtual reach, which I think is very important.

We are also looking at medical diplomacy in how do we today, where we don't have engaged conflicts, how do we today help build up the capabilities within our coalition partners so that we have better integration and a certain standard level of care. And then we are taking the lessons learned that we have seen over 13 years of war and getting those back into our training centers to make sure that our skill level maintains.

Admiral NATHAN. Sir, your question is particularly germane to the naval forces, which have distributed platforms all the world, often in isolated places, and may suffer a kinetic or accidental trauma. And so like the other Services we have been providing all of our basic corpsmen now with TCCC: tactical combat casualty care training.

The big sea change in combat care now compared to, say, 20 years ago was that our young medics and corpsmen come out equipped to do sophisticated lifesaving procedures at the scene of injury to allow some time and to allow the golden hour. We also have forward deployed expeditionary resuscitative surgical systems where we have teams now that can carry backpack operating rooms on them. They can carry anesthesia machines and ORs, in small groups of four or five people who could do surgery on this table in front of you if they had to at a moment's notice.

The medevac evacuation still remains kind of the long pole in the tent. How do you get people from distributed isolated places back to the mother ship in order to provide care. And we have enhanced that, and I think General Travis can talk about en route care and about the ballet of medevac that occurs between the rotary lift and the fixed-wing aircraft.

General TRAVIS. Ballet is not a word I would have used. But, sir, it is a wonderful question, and, frankly, it is a challenge. As we deal with nonstate actors in remote places like Africa, you mentioned a few others, certainly the folks, the commanders who are placing warriors at risk, I don't care what the Service, are hesitant to operate without great medical care nearby. They carry their own organic assets. We are extremely well trained and have benefited from the experience of this war to understand how to provide combat casualty care better than any time in history. A lot of those advances, by the way, have translated to better casualty care in this Nation.

With specific emphasis on places where the golden hour is a challenge, where there may not be organic capability or we may not have fixed facilities like we have had the benefit of in Iraq and Afghanistan in this long war, we in fact have stood up some tactical critical care evacuation teams at the next level, called enhanced tactical critical air evacuation teams. We have teams standing by in Germany, for example, that can get on an airframe of opportunity and carry surgical capability downrange, where a special operations surgical team may have done the initial resuscitation, then perhaps, as Admiral Nathan mentioned, do surgery on an air-

plane on a ramp. And so these are the kind of innovative things we are having to think about as we deal in very remote areas.

I would just comment on, as we pull out of Afghanistan, the three of us have travelled there together, and it became very clear as operations have changed there and certainly forces have moved, you are right, the challenge to keep that golden hour is tough. One of the things that we have all learned and we are all doing is pushing better capability further forward to where actually you take the care out there rather than trying to get them back. And you still get them back, but the care you put out there, and we learned this from some of our allies, if you put out advanced care to the point of injury, as I mentioned in my testimony, you will watch survival rates go up as well.

Mr. FRELINGHUYSEN. Thank you, Judge Carter.

Mr. Israel, and then Mr. Calvert.

SCLERODERMA RESEARCH

Mr. ISRAEL. Thank you, Mr. Chairman.

General Robb, a very specific question about scleroderma research. This is something that I have been working on. You may not have the exact answer at your fingertips, but if you would commit to looking into it for me and getting back to me, I would be very grateful.

I have been involved in the issue of scleroderma research for some time, and it is linked to cancer as an acceptable study area that could be funded under the Peer Reviewed Cancer Research Program. It was included in the subcommittee's recommendations last year but was not included in the final version of our bill. And I would appreciate it if you would take a look at this and advise me on whether studying a disease like scleroderma, which is not cancer but is an indicator of predicting cancer, is a worthwhile study area to be included in the PRCRP.

General ROBB. Yes, I will be glad to do that. And as you know, with our Murtha Cancer Center and also our relationship with the National Institutes of Health and with their national cancer programs over there, I think we have got a bed of knowledge that we can go back and see what we can do for you, yes, sir.

[The information follows:]

Scleroderma is not a good fit for the Peer Reviewed Cancer Research Program (PRCRP). Scleroderma is considered a rheumatoid and connective tissue disease because it is characterized by inflammation of the joints as well as pain and hardening of the connective tissues. The majority of scleroderma patients do not have cancer associated with their disease. Research concerning prevention, arrest, or reversal of symptoms in scleroderma is critical as well as how to decrease organ involvement, especially the lungs. These areas of research focus are crucial to understanding the disease and patient care, but they are not aligned to a cancer research program. As a singular topic, though, scleroderma and its general study as an autoimmune disease is best served outside a cancer program. Scleroderma research is currently supported under the Peer Reviewed Medical Research Program (PRMRP).

Mr. ISRAEL. I appreciate that. I will have another question on the second round having nothing to do with this, but I will hold to the second round.

Mr. FRELINGHUYSEN. Thank you, Mr. Israel.

Mr. Calvert.

ACQUISITION OF PROFESSIONAL MEDICAL SERVICES AND JOINT FIRST AID KIT

Mr. CALVERT. Thank you. Thank you, Mr. Chairman.

Good morning, General Robb, General Horoho, Admiral Nathan, General Travis. First, thank you for all being here today and thank you for what you have done for our country, and wish you well in the future.

The fiscal year 2012 NDAA required the GAO to study DoD's acquisition of professional medical services. Once the GAO had completed its study, they recommended that DoD develop a Department-wide approach for contracting healthcare professionals, and DoD apparently agreed with those recommendations.

The fiscal year NDAA required the SecDef to develop a strategy for carrying out the recommendation, then execute that strategy. The strategy was required to, one, identify opportunities, to consolidate requirements and reduce costs for professional healthcare staff and services; and two, analyze, using reliable and detailed data covering the entire Department, the amounts of funds expended on contracts for healthcare professionals.

General Robb, I would like to hear your update on how the DHA is progressing with a strategy for implementing the GAO recommendations as laid out in the NDAA.

And while you are on that, speaking of Service-wide, there was a recommendation to go to a Service-wide first aid kit—

General ROBB. Sure.

Mr. CALVERT [continuing]. A standardized first aid kit that had a 5-year shelf life. I understand that has been delayed. I don't know if that is an acquisition problem or not. And there is apparently some additional cost to that. So maybe you could touch on that too. Thank you.

General ROBB. Yes, sir. As far as looking at the consolidation of the contracts, that is, again, one of the primary and foundational elements for the Defense Health Agency. And through our shared services in our contracting division, what we are doing for a way ahead is looking Service-wide where it makes sense to consolidate our contracts, whether it is in the professional services or whether it is in the hiring of, again, healthcare professionals, or if it is equipment purchases.

And what we do is we look at all the different contracts, we look at where there is overlap, where there is redundancies, and then how we can move forward to negotiate, again, a more standardized approach to our healthcare delivery, so it makes it more viable, number one, and then, again, updated towards what we call a modernization in an organized feature.

As far as the joint first aid kit, I tell you what, that is a success story, sir. We have agreed upon, all of the four Services, I think for the first time in my career, have agreed on all the elements in the joint first aid kit. What we are working through right now is, actually it is the carrying bag, and we are pretty close to deciding what that is going to be. But the equipment, and we are lined up that that will be one of our first joint products across the board, that will be issued. And that is key, in taking what we call the tac-

tical combat casualty care principles and moving them forward and standardizing them on the battlefield.

Mr. CARTER. And that kit has a 5-year shelf life. When do you believe you are going to deploy that?

General ROBB. Sir, I will have to get back to you with that, because I know we are working all the contracting issues on that. And as far as the contract being let out, I can get back to you on that. Yes, sir.

[The information follows:]

Per U.S. Code Title 10, the Services maintain doctrine, training, and funding responsibility for lifesaving medical materiel. First Aid Kits are not a new requirement and per Service replenishment cycles and FAR Part 8 requirements (e.g., AbilityOne Procurement List), each Service will renew its AbilityOne contracts to satisfy its JFAK demand.

In December 2014, the U.S. Air Force contracted for its new JFAKs with all core components having a five year shelf life. It expects delivery of initial units in approximately June 2015. The contract, written in collaboration with DLA Troop Support, enables the other Services to renew their AbilityOne contracts for JFAKs using the improved unified language and details. The other Services are in various replenishment cycles and will exhaust their first aid kit inventories and then replenish with the JFAK per OASD (HA) Memorandum Department of Defense Joint-Service First Aid Kit Standardization Guidance, dated August 18, 2014.

Mr. CALVERT. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you.

Ms. McCollum.

RECRUITING AND TRAINING HEALTHCARE PROVIDERS

Ms. MCCOLLUM. Thank you, Mr. Chair.

First to the two of you who have announced retirement, and it sounds like there is a pending one, thank you all for your service. Very, very much appreciated. And you deal with families facing tragedy, and so thank you for your care and your compassion as well.

And I would like to do a little bit of a shout-out for you, Lieutenant General HOROHO. First woman and nurse to have the position that you have. And I am sure the doctors in the room will agree nurses are with us most intimately at the beginning of our life and also at the end of our life. So thank you for your profession.

General HOROHO. Thank you.

Ms. MCCOLLUM. Now for my question. So in your written testimony you all touched on something I would like to focus on a little more, and that is the challenges that you face recruiting and training the healthcare professionals you need, from doctors all the way on down in the highly technical skill set nurse professionals are developing. Because having a highly trained healthcare system is critical for our troops and for our families and for our national security, whether it is the service men and women or children, such as myself when I was younger accessing your facilities. And then you have, as Mr. Carter pointed out, the responsibility of battlefield and abroad. So you have got a healthcare workforce that needs to be really flexible, highly qualified, up to date on delivery-of-care service.

But then at the end of many military careers, a lot of the healthcare professionals don't do what you do, retire from the military, they go into the civilian workforce. So it is important for us, for the Department of Defense to be there to train the next genera-

tion of physicians, nurses, nurse practitioners, physician's assistants, the list goes on and on, and now with the importance on mental health that we are finally starting to recognize and then fold in total care.

And I am concerned about what I am seeing happening with our teaching hospitals nationally. You are a teaching hospital as well. So could maybe you elaborate for us as a committee, because you are going to impact the health of not only our service men and women but our entire country, what are some of the barriers and challenges that exist right now that make it more difficult for you to recruit and train the next generation of healthcare professionals? And looking at the long term, what barriers or challenges do you think in the next 5 to 10 years will impact your healthcare readiness, including what might be going on in civilian teaching hospitals?

Thank you.

Admiral NATHAN. Well, ma'am, I will start first. I have been involved in graduate medical education at every level for over 30 years. Currently we enjoy a fairly robust recruiting and retention in Navy Medicine. I attribute that partly to patriotism and an awareness of service to country and partly to the economy. We always keep a close eye on the economy dial, because it ebbs and flows, and so does our recruiting.

We have a little more problem in our Reserves right now. That is my Achilles' Heel in the medical corps in that we have more people staying in. That is a smaller pool where we recruit from, for our reserves. Plus the Reservists, some of whom have spent their time being pulled into a 13-year conflict, being cycled one or two times, and are less apt to sign up in the combat casualty area. So we are looking at incentive pays and things like that.

So far the health of our training programs, at least in the medical departments, have been very, very good. We have one of the highest board pass rates for all three Services across the country. And so I think we are producing fine physicians. I think our nursing programs, and Patty can speak to that better than I can, but so far we have the pick of the litter. We fill our nursing programs very early, and we have more applicants than we have room for. I am not resting on that laurel, nor do I think that can continue in perpetuity, but currently we think we have a good recipe.

I share your concern across the Nation with changes and transformational changes in how we educate physicians and residents in training. On one hand we have afforded them shorter work hours and more opportunity to rest and read and learn; on the other hand, it is still an apprenticeship-type profession. And many educators, senior educators are lamenting that perhaps we have overdone it and that we are not giving people enough time at the bedside or enough time with the patients to learn via an apprenticeship.

But that is something we wrestle with in the military as well as in the civilian sector, and I think as we come together as graduate medical education review boards to look at the sweet spot for how do we give somebody the optimal time to learn and also the time to be an apprentice.

General HOROHO. And, ma'am, I will just add a little bit onto what Admiral Nathan just said. So if we look at it through the lens of where we have concerns, the areas of concerns would be in our subspecialty care. Being able to recruit some of those highly skilled professionals from the civilian community into Active Duty service is a challenge in some areas, so neurosurgeons, cardiologists, and those areas.

The other area where I have the biggest concern is that if we move towards sequestration and it impacts our ability to conduct research, that translational research of evidence-based practice at the point of healthcare delivery and really being able to make sure that that is threaded through every one of our graduate medical education programs to enhance quality of care, and then there is a relevancy for the deployment environment. That is the area where I have concerns. And then that is what makes our graduate programs nationally ranked, is we are able to take that strong research and have it really embedded into the way that we train.

When I look at an area, an avenue in which to get more of our clinicians and physicians, one of the programs that Uniformed Service University just started, which is taking highly educated young enlisted servicemembers from all Services and actually have them go through a premed program, getting ready to go into and be competitive for medical school. And we have seen this last batch, most of the enlisted had GPAs in school of, like, 3.9 and 4.0, extremely impressive. And so that is another avenue that we are constantly looking at.

Maintaining our recruitment and retention bonuses is absolutely critical. I appreciate Congress' support in that area, because that has allowed us to maintain the right skill set over the last 13 years of war.

And then lastly I would just say from a national issue where I believe if we are going to really look at the cost of health care changing, if we don't start educating across all of our disciplines, to include engineering schools and building our communities, the impact of health and how we increase that knowledge so that it changes behavior, I don't think we are going to ever bend that cost curve in the way that we need to.

General TRAVIS. I would only add, and I am glad General Horoho mentioned the bonuses and the pay equity, and it is not going to be equitable, but the support for the bonuses and the specials pays is going to be crucial.

I would also add the pipeline is where we get the majority of our forces and the training pipeline, so support for HPSP is extremely important. Certainly Medical Corps, Dental Corps, that is a great majority. Eighty percent of our Medical Corps comes out of HPSP, and so it is very important, and FAP, the financial assistance. So we really do need continued support of that. We are doing very well with a not fully qualified accessions, but our pipelines are strong.

The only other thing I would mention is while we are retaining more, there are some certainly who are combat-proven specialists, trauma surgeons come to mind, and I am personally aware of a few who have deployed several times in Iraq or Afghanistan who are trauma czars, who would now like to make the transition to the Reserves. They are finding that is hard to do. And so we are work-

ing through the difficulty now. We would love to keep those folks on the bench ready for the next eventuality, wherever that is. So we are taking a very hard look at that, and that may be something that we might need help with from Congress.

Thank you, ma'am.

Mr. FRELINGHUYSEN. Thank you, Ms. McCollum. Excellent line of questioning.

Mr. Crenshaw.

MALARIA VACCINE

Mr. CRENSHAW. Thank you, Mr. Chairman.

And let me add my words of welcome to all of you. Thank you for the work that you do.

You know, we hear, I guess we have heard in our hearings from all the different Services, talked about the impact the budget has on their ability to meet our National Defense Strategy. Obviously you are very important in terms of the well-being of the troops. Just common sense, if you are not well and your family is not well, you are probably not going to be an effective fighter.

So thank you for the work that you do. And as the chairman said and my colleagues agree, I don't think you will find a group of folks more dedicated to supporting the work that you do. So thank you for that.

I want to ask you about, particularly, General Horoho, last year we talked about malaria. I am chairman of what they call the Congressional Malaria Caucus, and so I like to keep abreast of what is going on. And when you were here last year, you said there were clinical trials that were going on, phase III clinical trials, and those have been completed now. And I think we all know, we have talked about the fact that malaria has all but been eradicated here at home, but it is probably the number one infectious disease that our military troops face. I was going to ask you maybe in a minute about when we had the Ebola crisis, how it impacted there.

But the big question is, tell us a little bit about, update us, the clinical trials are over, as I understand it. We have got vaccines for typhoid and yellow fever, but we still haven't developed a vaccine for malaria. And somebody said the mosquito is the most lethal insect there is. More people die from mosquito bites than just about any other animal or insect. So it is a big problem, obviously. Tell us what we are doing. Where are we in developing that vaccine?

General HOROHO. Yes, sir. Thank you very much.

We do have a vaccine that is not efficacious for protection of our troops, but it is, what we have seen, efficacious for taking care of young children that are exposed. And so I think the power of that is that it shows that we can develop something that does the preventive measures, and so it will allow us to build upon that aspect of it.

We are also looking at the different types of medication that can be used. When we look at just the vaccine piece of this, the ability to really reduce the cost of health care, because if we could vaccinate, it is about a dollar per person, vice Malarone, which is about \$100 per soldier, and then much cheaper, you know, with Doxycillin. And also the compliance piece.

So with Ebola, we had five soldiers that actually contracted malaria. We believe that it was probably due to noncompliance with the medication regime that they needed. All of them are all doing very, very well. But we continue to invest in that area.

Mr. CRENSHAW. Do you think, will there be a day, for children, and I know it is devastating to children around the world, obviously. I mean, some of the appropriations we have given you in the Walter Reed Research Center. Where are we in terms of maybe the next step, not just children, but where it might be valuable, more valuable to our troops as they go?

General HOROHO. I think continuing to ensure that we are aggressively funding and capitalizing on the research and the collaborative research that we have in our research centers in Thailand, and the Navy has theirs as well, to be able to make sure that we are learning from those labs that we have and that we keep the funding going so that we keep that collaborative partnership with the host nations as well as ourselves. I think that is going to be absolutely critical.

And when you look at the missions in which we are deploying more and more to, the threat of malaria is one of the biggest threats, and maybe the number one threat, about 50 percent risk there. And so I think in that area is to continue that pipeline of funding.

COMPOUND PHARMACEUTICALS

Mr. CRENSHAW. Thank you.

Mr. Chairman, I have a question about when we talk about pharmaceuticals. This is something that just jumped out at me. I was reading, you know, that from 2000 to 2014, spending on compound pharmaceuticals went from, like, \$5 million to \$500 million in a 10-year period, and it was going to be \$2 billion in the next 3 years. What gives? I mean, in terms of compound. I don't know exactly what a compound pharmaceutical is, but when it goes from \$5 million to \$500 million in a 10-year period. And it is still not—it is not a great percentage of the drugs, but it is, like, 20 percent of the cost. Are we working on that somehow? I mean, what has caused that kind of explosion?

Mr. FRELINGHUYSEN. Sounds like General Robb is front and center on that.

General ROBB. I have got that one, yes, sir.

You are absolutely right. Currently our pharmacy, 0.5 percent of our pharmacy prescriptions now account for, and that is because of compounding, compounding now accounts for 20 percent of our total expenditures in the pharmacy arena. And, again, you were correct, in March of 2014, the compounding cost us about \$42 million in that month. It is \$330 million in March of 2015.

So to answer your question, why is this, it is really primarily for two reasons. One, it has been a direct and an intensive marketing campaign by those compounding pharmaceuticals, not only directed towards our patients, but our healthcare facilities, both direct care and also in the network, and our providers. And so they have been actively recruiting folks to go out there and get folks to basically switch over to compounding pharmaceuticals as opposed to what

we would call the more traditional. That is number one. So that is intense marketing.

Number two is in December of 2012, an average compounding pharmaceutical was about \$190 per claim. December of 2014, \$2,600 per script, claim. And so that tells you that the price has gone up, the marketing has gone up, and therefore that has driven the volume up.

We started to notice this about 2 years ago, because our pharmaceutical ability to identify the products in our claims, that was a new addition, and so we started to notice that there were products within the compounding pharmacy that were not FDA approved. And so our plan was to, how do we best approach this? And so we have been working together with our constituents, we have been working together with our industry, we have been working together with our beneficiaries, and also our providers to come up with a way ahead.

Express Scripts, which covers about 70 percent of the pharmacy contracts in the Nation, is also the pharmacy contract for the Department of Defense, and they have in place for the civilian sector a series of algorithms where they screen the drugs that come in for FDA compliance and also for safety and efficacy. And the number one priority of the Department of Defense is the safety and efficacy for our patients. So that is one, and then number two is to be good stewards of our taxpayers' dollars.

So beginning 1 May, we will start to screen those drugs with all the input that we have had from the different focus groups, and that is going to be immediately. Takes 5 seconds. And then if we identify a product within those compounding pharmacies that is not FDA approved, we have the ability to go back and ask the pharmacy or the provider if he wants to change the ingredient or change to a different medication. If he does not, there is also going to be a policy in place where they can request an exception to policy, and that will take about 5 days.

Before this, and we have already begun this, is an intensive campaign to communicate to our beneficiaries and to our providers out there in our managed care support contracts that this is the way ahead.

Mr. CRENSHAW. Thank you. And I would just say, I mean, that is astronomical.

General ROBB. Yes.

Mr. CRENSHAW. And the marketing part, I mean, if they are more effective, you want to make sure that we keep folks well.

General ROBB. Yes.

Mr. CRENSHAW. But if it is so wildly expensive, we have to make sure that that is the most effective and most efficient way to do that. So thank you.

General ROBB. And that is the key. Many of these compounding pharmaceuticals don't have the data to back up the efficacy and the safety. And that is one of the primary reasons that, again, we are focused on screening those products, to make sure that they are safe and FDA compliant.

Mr. CRENSHAW. Thank you.

Mr. FRELINGHUYSEN. Thank you, Mr. Crenshaw.

Admiral NATHAN. Sir, could I just add one comment?

Mr. FRELINGHUYSEN. Yes, sir.

Admiral NATHAN. Because this represents possibly, if unabated, the greatest threat to the DHP budget the way it is accelerating. We are taking it very seriously. But you will probably hear some groups start to lament the fact that we are tightening the reins on these. Be assured that we are doing this on those that have no proven scientific measure of improved efficacy or clinical application. We would not restrain any pharmaceuticals that we thought from a cost standpoint provided great bang for buck. So far, these have not proven to.

And so because of loopholes and various opportunities, people have found that if you mix two things together and charge for that, which is called compounding pharmaceuticals, you can charge an exorbitant amount. And the DHA and the others are starting to take this seriously. But this is a real threat to the DHP program.

Mr. FRELINGHUYSEN. Just for the record, we have been aware of this for 2 years. General Robb, you are in charge of the cost curve.

General ROBB. Right.

Mr. FRELINGHUYSEN. So it is not new. And just for the record, I always thought compounding existed when traditional generic or traditional drugs weren't meeting the needs of the patients, that is why you did compounding. Is that correct? Or is this another version of compounding, just for the record here?

General ROBB. You are right.

Mr. FRELINGHUYSEN. In other words, there are traditional drugs that you get.

General ROBB. Traditional pills and—

Mr. FRELINGHUYSEN. But then when you can't meet the patient's needs, then you go into a compound mode, right?

General ROBB. Right. Some of it is for ease of delivery. Most of it is for pain. But we have known about the compounding pharmacy for 2 years, but the actual astronomical growth in the cost has really only been over the last 4 to 5 months.

Mr. FRELINGHUYSEN. Okay.

General ROBB. And then I would like to add one real quick thing on ESI. One of the things that they are currently doing that will also help not only screen it for, again, approved medications, but number two is they are now currently negotiating cost caps for the medications, and so we will bring the competition and the price down with the pharmaceuticals.

Mr. FRELINGHUYSEN. Okay. I just wanted to get to Mr. Visclosky. I apologize for jumping in here, but I think we need a little bit of clarification. Thank you.

Mr. VISCLOSKY. And if I could also ask a question on clarification. On the line of questioning, you had mentioned that what will be excluded are drugs not approved by the FDA. Why would they be approved now if they are not approved by the FDA? Myself, and I am only speaking for me, I think it is insidious when sales representatives, I was watching TV for a half-hour, you have five drug ads, and the physicians I talk to at home say they do. I mean, they know exactly what they are doing here. But if it is not approved already, why have they been approved?

General ROBB. As you know, the FDA in our system exists, again, to provide safe and effective medications for our patients.

Some of the medications, as you know, FDA, are approved for use in a certain manner or a certain delivery, but a lot of them are not in bulk compounds. And so that is what happens. They will take these bulk compounds, which are not FDA approved, but if you use them as individual drugs they are okay.

And so it is actually very complicated, and that is why we have been working with the FDA to have them look at, you know, give us some guidelines here so that we can move forward. And I think this has been a good relationship, not only with the industry, but with our beneficiaries and also with our providers.

Mr. VISCLOSKY. I do appreciate the effort.

Mr. CARTER. Mr. Chairman.

Mr. FRELINGHUYSEN. Judge Carter.

Mr. CARTER. Would the gentleman yield for just a second?

Isn't part of the reason people go to compounding pharmaceuticals is that the FDA hasn't reached these drugs, which they have been approved? I am just going to tell you the story. My wife has an esophageal problem that they have not been able to fix, and the doctor said, well, they have a product that has been approved in Canada and it seems to be very effective, go to a compounding pharmacy. And we got that product, and it is very effective. And the only reason it is not on the market in the United States is that FDA has not reached it yet. So I am going to have to speak out that at least in my experience, it was quite a lifesaving drug.

Mr. FRELINGHUYSEN. Thank you, Mr. Carter.

Mr. Visclosky.

CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS

Mr. VISCLOSKY. Mr. Chairman, on behalf of Ranking Member Lowey, I just would want to for the record point out that she has long been an advocate of funding for congressionally directed medical research programs, and particularly for breast cancer and for funds that have been provided for Service-specific research projects in labs across the globe.

For the record, I would like to introduce three questions, if I could have the panel answer them, most specifically the question relative to, have results of military medical research been incorporated into practice, changed procedures, or improvement of care?

Appreciate it very much, Mr. Chairman.

[The information follows:]

As Navy Surgeon General I have two pathways to develop medical products and strategies directed towards force health protection. These include the Navy Advanced Medical Development (AMD) Program, and a world-wide research enterprise of eight biomedical research laboratories that address the full range of DoD medical priorities from Traumatic Brain Injury and Psychological Health to Combat Casualty Care, Mitigation of Infectious Disease Threats, and Warfighter Performance in Extreme Environments. Since these execution labs are largely dependent on competitive funding from DoD, other federal agencies, and non-federal research sponsors, they are adept at leveraging their finding by partnering with similarly focused institutions to enhance their efforts. In Fiscal Year 2014, Navy Medicine executed nearly 100 new public-private Cooperative Research and Development Agreements leveraging internal and external capabilities and resources toward accelerating the development of new biotechnologies.

The products of our Navy AMD Program enhance the capabilities of care providers under austere conditions. The Program's major lines of effort include preventing mortality and morbidity resulting from battlefield injuries, optimizing warfighter performance, and maintaining combat readiness while reducing the over-

all medical logistics burden. As an "Advanced Development" program, AMD does not fund basic or applied research initiatives, but seeks to transition mature technologies developed either by DoD laboratories and agencies, other federal labs, and academic or industry partners. AMD provides products that support the unique demands of our undersea forces and innovative solutions in Preventive Medicine for maintaining a fit and ready force deployed world-wide. A major focus area continues to be support of the Marine Corps. Recent examples of joint development include delivery and deployment of the Mobile Oxygen Ventilation External Suction Device and the complementary Mobile Anesthesia Delivery Module that recently received medical device marketing approval. Together, these devices provide advanced casualty life support with significantly reduced cube and weight. These devices, as integral components of an enroute care system, allow delivery of critical care on land, in and across the littorals, and on the sea-base.

As part of an enterprise research lab initiative, as opposed to an AMD effort, the Naval Medical Research Center's (NMRC) Biological Defense Research Program formed the Austere Environment Consortium for Enhanced Sepsis Outcomes (ACESO), which is using clinical research to develop sepsis clinical practice guidelines and host-based biomarker tests to allow a precision medicine approach for improving survival in severe infectious diseases in remote or resource-limited environments. In collaboration with academic partners and our Naval Medical Research Units in Asia and Egypt, ACESO has established an international network of sites researching how to apply these principles in severe infections. The tools developed by ACESO could significantly mitigate the impact of severe and emerging infectious diseases on our increasingly distributed operational forces.

An example of a near real-time solution to an injured warfighter problem is the collaborative effort between NMRC and the Walter Reed National Military Medical Center (WRNMMC) to develop a Clinical Decision Support Tool to Guide Extremity Amputations. The differences in functional outcome of patients with lower extremity amputations compared versus those undergoing limb salvage secondary to severe lower extremity trauma presents a challenge to the medical community and to patients. Experience from years of treating warfighters with extremity injuries from Improvised Explosive Devices (IEDs) has resulted in the realization by the warfighters and their clinical providers that they could have more function with a prosthetic than with a less functional and severely injured residual limb. After many years of caring for injured warfighters confronting this very situation, our researchers worked with colleagues at WRNMMC to develop a decision support tool that improves both patient outcomes and the quality of life for the patient by providing the physician and the patient with an estimation of the probability of limb viability based upon sound clinical data.

As a final example, I am proud to report that Navy Medicine's productive collaborations are not limited to U.S. partners, as evidenced by the deployment of two Navy mobile Ebola detection labs to Liberia to support response efforts of the Government of Liberia, other U.S. government interagency partners, the World Health Organization, and various Intergovernmental and Non-Governmental Organizations. During our 5-month deployment, three to four person teams processed nearly 4,000 suspected Ebola samples. Laboratory results were provided to health authorities and international partners within 4-24 hours of accession, resulting in a dramatic decrease in result turn-around times.

Military medical research and development conducted by the U.S. Army laboratories in the United States and overseas, has historically and currently provided numerous discoveries and products which have been incorporated into practice, changed procedures and improved care. Studying the threats due to combat deployment and military training, both on and off the battlefield, by military laboratories in partnership with civilian research institutions, has facilitated the research and development of technologies for infectious diseases, trauma care, operational medicine and, in recent years, rehabilitative and regenerative medicine. The U.S. Army Medical Research and Materiel Command (USAMRMC), a subordinate command of the U.S. Army Medical Command, manages and executes core program Army Research, Development, Test and Evaluation (RDTE) efforts. USAMRMC also executes certain Defense Health Program RDTE core programs and annual congressional special interest funding, through the Congressionally Directed Medical Research Programs (CDMRP), which supplements the military relevant medical research and funds national programs for diseases of congressional interest.

Below are some of the changes in civilian medical practice and improvement in care that have resulted from military medical research and development conducted by U.S. Army Medical Research and Materiel Command.

The Military Infectious Disease Research Program has been involved in all major breakthroughs of vaccines and therapeutics for the prevention and treatment of malaria, has conducted the first successful HIV vaccine trial and recently completed an Ebola vaccine human safety trial.

Some military lessons learned over a decade of war from Combat Casualty Care have changed the military and civilian practice of trauma care. In the August 7, 2013 publication of the *Journal of the American Medical Association*, many of these lifesaving advances include: managing a surge of complex casualties, use of tourniquets and hemostatic bandages at point of injury, changed ratios of providing blood components (*e.g.*, plasma, platelets, and red blood cells), and use of less invasive shunt and endovascular devices.

Evacuation of wounded during the civil war, through air evacuation in the Vietnam war, and into modern day in flight and enroute medical treatment was developed by the military and many of the lifesaving aspects directly translate into civilian ambulance and air evacuation practices today.

Military advances in Traumatic Brain Injury (TBI) include approved devices to assist in diagnosis, a completed pivotal trial in blood biomarkers, the largest-ever longitudinal study of the natural history of concussion, advanced neuroimaging technologies, and the Federal Interagency TBI Research (FITBIR) data repository for federally funded TBI clinical research databases. The Clinical and Rehabilitative Medicine Research Program has greatly advanced the development of powered and intelligent prosthetics for young active amputees and the Armed Forces Institute of Regenerative Medicine (I & II) has made quantum leaps ahead including the development of technologies for growing of new human organs, spray on skin cells, as well as hand and face transplants.

The Operational Medicine Research Program has shown that the prolonged or repeated psychological stressors from the military are different than individual occurrences of civilian Post Traumatic Stress. Funded studies identified that fewer sessions of Cognitive Behavioral Therapy may be very beneficial for military trauma. The program also produced a patentable molecular signature that can characterize individual aspects of post-traumatic stress disorder (PTSD) and identified the eight specific dysfunctional issues embodied in the "gold standard" clinician-administered PTSD survey based on Diagnostic and Statistical Manual of Mental Disorders (DSM)-IV and DSM-5 codes.

Research for Medical Training and Simulation is changing the field of smart man-ikin technology, bringing together various companies to create plug-and-play medical and surgical training devices to prepare our medics, doctors and other health care providers for trauma care.

As a result of investment in CDMRP over the last two decades, many new cancer drugs and therapies have been developed and approved by the Food and Drug Administration, several cancer gene expression diagnostics have been approved, imaging techniques have incorporated new technologies, and registries have been created. The annual CDMRP report (<http://cdmrp.army.mil/pubs/annreports/annual-reports.shtml>) and the CDMRP website (<http://cdmrp.army.mil/default.shtml>) list these and numerous other advances and accomplishments for several types of cancer, rare diseases and other diseases affecting the population of the United States as a whole.

Thank you, Congressman Visclosky for asking these very candid and important questions as to how medical research is translating to better care.

I have employed a two-Wing concept for execution of research and technology development in the Air Force Medical Service that supports Air Force critical mission gaps in the areas of enroute care, expeditionary medicine, force health protection, human performance, and operational medicine. The research conducted by the 711th Human Performance Wing and the 59th Medical Wing translates to knowledge products for improving clinical and operational practice in theater, enroute, and at home. We have also leveraged Congressionally-funded research programs with extramural partners that have resulted in significant improvements in patient care.

Our autism research has focused on better care and health for Air Force families. Over the last few years we have teamed with Wright-Patterson Air Force Base Medical Center, Nationwide Children's Hospital, and Dayton Children's Hospital in Ohio to identify Autism Spectrum Disorder (ASD) susceptibility genes, rare variants and interventions to enable early intervention and treatment. This endeavor continues to support development of the Central Ohio Registry for Autism, which will enroll 150 families in the next phase of patient studies through September 2015, 50 percent of which are military families. One promising breakthrough we are evaluating is early intensive behavioral intervention with Applied Behavior Analysis. Research shows that earlier screening, diagnosis and intervention lowers the extent of therapy needed over an individual's lifetime. We continue to look for ways to improve

the experience of care and reduce stress for our ASD individuals and families by exploring ways to extend our resources through the use of online health professional training and telemedicine. The Air Force currently has about 1,700 patients enrolled in the Exceptional Family Member Program and may benefit from this treatment.

It is a well-known fact that the prevalence of overweight/obesity and its related co-morbidities, such as diabetes, is increasing in the U.S. to include the U.S. military. The fight against this epidemic is best addressed by the adaption of lifestyle intervention programs. Through Congressional funding (\$14.7 million) and collaboration with the University of Pittsburgh's Diabetes Prevention and Support Center (DPSC), the Group Lifestyle Balance (GLB) lifestyle intervention program was developed. The foundation of the GLB program is based on the National Institutes of Health (NIH) Diabetes Prevention Program (DPP). The GLB has shown to be effective in reducing weight, increasing activity, and modifying disease risk in multiple populations. The GLB program is one of two recognized community-based diabetes prevention programs. Over the past several years, the DPSC worked with the Air Force Medical Service (AFMS) to provide multiple training opportunities for military health professionals with resulting GLB programs ongoing at five military sites.

In 2010, we established a Personalized Medicine Program with the vision of guiding use of genomic information in clinical decision-making. Since that time, more than 27,000 risk reports have been provided to study participants for risk factors for melanoma and sleep deprivation. From the resulting surveys, the information provided has had the effect of motivating military members to change behaviors. The mid-term study results document improvements in preventive health behavior.

We are developing a rapid screening tool to leverage state-of-the-art in vitro toxicology datasets leading to advanced models that assess how chemical toxicant exposures can contribute to adverse effects on our operators in high performance air craft. The current method to quantitatively assess health risks of chemical exposures relies on expensive, low-throughput animal studies unsuitable for assessing the potential toxicities of the 10,000 chemicals to which air crew are exposed. We worked with industry to develop a platform utilizing high-throughput, physiologically relevant cell-based assays to elucidate the mechanistic basis of toxicity, in lieu of animal studies. Results of this effort will allow for the early assessment of potential toxicities in a rapid, cost-effective manner.

In addition, we are addressing unique operational needs through research. Our U-2 pilots were experiencing hypobaric and hypoxic conditions on subcortical structures (brain white matter lesions). Our research resulted in better definitions of the initial impact of hypobaric and hypoxic conditions, which drove operational doctrine changes, and impacted organizational approaches to mission and manning.

Finally, with the anticipation of fiscal year 2016 and beyond advanced development funds in our appropriation, I have established an Advanced Development Cell (ADC) to transition medical materiel solutions for improving warfighter care in the air, on the battlefield, and in garrison.

We have developed a unique design for a vascular shunt that can be inserted into a wounded warrior by a far-forward deployed surgical team. The shunt restores blood flow to a wounded limb to enable the limb to be salvaged, and minimizes the loss of functionality for the wounded warrior. The design is military unique, as the typical injury where this capability is required occurs at sites that may be hours away from more definitive care.

Starting in 2014, the AFMS began assisting the Army Medical Research and Materiel Command (USAMRMC) and the Special Operations Command Surgeon General (SOCOM/SG) to transition the novel "XStat hemorrhage control sponges" for treating non-compressible junctional wounds on the battlefield caused by gunshots and shrapnel. AFMS support helped the XStat product become Food and Drug Administration approved for battlefield use in 2014, reduced the production costs in half, and enabled 300 units to be deployed with SOCOM troops. In the middle of May 2015, the XStat product was reportedly used to save the lives of at least one member of Canadian Special Forces personnel, and was used on two others who were wounded in a deployed setting. We are currently funding a broader trauma indication that will apply to local, state, and federal-wide use.

Military medical research and development has provided numerous discoveries and products which have been incorporated into practice, changed procedures and improved care. A few examples include:

- Prevention and treatment of malaria through major breakthroughs in vaccines and therapeutics;
- Use of tourniquets and hemostatic bandages at point of injury;
- Discovering change ratios of providing blood components (*e.g.*, plasma, platelets, and red blood cells);

- Use of less invasive shunt and endovascular devices;
- Assisting in diagnosing traumatic brain injury with newly approved devices;
- Advanced development of powered and intelligent prosthetics for young active amputees;
- Demonstrating that fewer sessions of Cognitive Behavioral Therapy may be very beneficial for military trauma;
- Development of a patentable molecular signature that can characterize individual aspects of post-traumatic stress disorder (PTSD);
- Changing the field of smart manikin technology;
- Development of new cancer drugs and therapy that have been approved by the Food and Drug Administration (FDA); approval by the FDA of several cancer gene expression diagnostics; and incorporation of new technologies for imaging techniques; and creation of new registries

Mr. FRELINGHUYSEN. Consider it done.

Ms. Granger.

ALTERNATIVE TREATMENTS FOR TBI AND PTSD

Ms. GRANGER. I had the opportunity to work with Marcus Luttrell on an issue. And in meeting with him, he talked about some very extremely effective treatment he had had at the Carrick Brain Centers in Las Colinas, Texas. They are doing really amazing work with servicemembers who are diagnosed with post-traumatic stress and traumatic brain injury. And I toured their facility and talked to some of their patients. In fact, I sent some that had come to me with problems that they were not getting the treatment they needed, and since they were on a grant could fill that with Active Duty military. Unfortunately, it is still extremely difficult for servicemembers to receive treatment there, especially while they are on Active Duty.

During this hearing last year, I asked what needs to happen to make medical treatment by organizations outside of the DoD more readily available to our servicemembers.

Director, your colleague, Dr. Woodson, said that you needed to work out a system to provisionally cover these kinds of evolving practices and create more flexibility in the program. My question is, what progress have you made in this regard? Are you any closer to making these services more accessible than you were a year ago?

And for years I asked how we are going to have the persons to treat all those that are coming home for two of the longest wars we have ever had, and the answer essentially was we are going to grow those physicians, which I knew was not going to service the numbers we have got. So tell me how you have progressed in making treatments like those outside of DoD available.

General ROBB. Yes, ma'am. One of the what I would call modernization efforts just in the last year that is going to allow the Department of Defense healthcare system, Military Health System, to move forward, is the creation, and actually through the support of the NDAA, is what we call emerging technologies and treatments. And so we have created a construct within the Department of Defense Military Health System to where we will take these emerging technologies and treatments and take a look at them, to look at, again, the safety, the efficacy, the data that either shows that the outcomes are as either stated and/or predicted.

This will allow us to stay on the leading edge of health care. As you know, the Department of Defense Military Health System is

governed by statute, and as a result we don't have necessarily the flexibility that some of our civilian healthcare systems do. But this will help us, again, under what I call a legal framework, to be able to do that. And we are excited about that. And if that is one of the things that looks promising, then we will absolutely take a look at it, yes, ma'am.

Ms. GRANGER. And so that can be looked at now, right?

General ROBB. Yes, ma'am.

Ms. GRANGER. You are saying that program already exists?

General ROBB. Yes, ma'am. We just stood it up. Yes, ma'am.

Ms. GRANGER. Well, I would hope that you would look at that. And I toured, and when I talked to people being treated there, I know, for instance, in strokes that you say the first 6 months were just magic. Well, they were treating stroke victims that had a stroke 7 years before and were progressing. So I just think for our military, those that are outside of that DoD could be extremely helpful rather than having someone spend the rest of their lives with some of the injuries they have.

Thank you.

Mr. FRELINGHUYSEN. Thank you, Ms. Granger.

Mr. Ruppertsberger.

NATIONAL TRAUMA CLINICAL RESEARCH PROGRAM

Mr. RUPPERSBERGER. Yes. First, thank the panel for your leadership in managing our defense health programs. For the last month or so, we have been having hearings with our military about military modernization, procurement, ongoing engagements, but the need for adequate funding for what you do and the defense health programs could not be overstated. And as you are well aware, these programs are not only important to our men and women in the military, either post-injury or current injuries, trauma, those type of things, but the research and medical technology benefits our citizens also.

I think, General Robb, I am going to talk to you about the National Trauma Clinical Research Program. Research into trauma treatment and prevention remains a top priority for the military, but it also has to compete with many other areas of research. And many advancements in trauma care are a result of extensive deployments on the battlefield, and we must maintain that momentum in trauma research.

I am aware of the Department's efforts to create a coordinated, multi-institution, clinical research network to advance military-relevant topics in trauma care and trauma systems that would allow the Department to maintain the advancement and skill sets critical to progressing in this area of research, even as our combat deployment decreases.

Now, the questions are, number one, could you explain the importance of creating such a network, the value it will provide to maintain military and, transversely, to the civilian communities, and what role the Department should play?

General ROBB. Yes, sir. I think if you look at the signature advance in these current conflicts and that is the rapid advances in survivability in our trauma system. And if you roll back time to around the 2005–2006 timeframe, we stood up and placed in the-

ater what was called the Joint Trauma System, and that was the brainchild of then Colonel John Holcomb with colleagues from the Army and the Air Force and the Navy to do an overarching management of the trauma system in the theater, not just in the OR, but pre-hospital, hospital and en route care, and to get all those folks working together for what we call a seamless integration across the continuum of care.

What was just as important during that time was the creation of the Joint Trauma Registry, and that is to collect the data that will back up the outcomes that we were trying to achieve.

One of the other things that happened during this conflict was the Visiting Professor Program, where we invited the senior trauma orthopedics and general surgeons from around the country to participate in the delivery of health care in Landstuhl and at times in our forward locations. So what we started to do was create an incredible alliance and strategic partnership with the trauma community in the civilian sector.

They saw our advances, they saw our data, many of which through damage control resuscitation and damage control surgery have translated back to the civilian sector. Many of the physicians who wore those uniforms in those ORs in the theater also were Reserve doctors who then went back to the University of Cincinnati, went back to the University of Houston, went back to the Baltimore Shock Traumas to deliver those advancing health cares.

Now, that same group of folks, because of those relationships that were built during our conflict, they see that we need to continue this. And so what we are seeing, sir, exactly what you saw, is there is a request out there for research and trauma coordination.

And that is where we create, again, one of our lines of effort, Dr. Woodson's lines of effort, strategic partnerships, with the trauma community out there where we also work together, our military healthcare system working side by side with the civilian healthcare system to continue to advance medicine. They learn from us and then we learn from them in the inter-war years. And that is what I call keeping the pilot light burning and continue the advancements in health care.

Mr. RUPPERSBERGER. Can you tell the committee what additional resources are required for fiscal year 2016 to advance this program forward and what efforts are underway to program for it in the POM, the Project Objective Memorandum?

General ROBB. Sir, I will have to get back to you on the specifics. [The information follows:]

The DoD Combat Casualty Care Research Program—as part of its larger research effort—is planning \$4-10M in FY16 President's budget to initiate a Civilian, Multi-Center Clinical Research Network in which military-relevant trauma topics can be studied. To spur this effort and leverage civilian expertise and capacity, the DoD Combat Casualty Care Research Program has issued a Request for Information on the topic of a Civilian, Multi-Center Clinical Research Network. After open competition and external review, the program plans to fund the best or strongest of the responses from civilian academia (trauma systems and centers) and industry with dollars from its FY16 budget. To sustain this capability in the out years, the Civilian, Multi-Center Clinical Research Network will be planned, programed and budgeted as part of the Combat Casualty Care Research Program's POM submission for Defense Health Program money.

BALTIMORE SHOCK TRAUMA

Mr. RUPPERSBERGER. Okay. You mentioned Maryland Shock Trauma. Could you tell me about it?

General ROBB. Well, one of the places—and, again, in fact, I will potentially succeed here the question over here to General Travis—but one of our places where we get great trauma experience is up at Baltimore Shock Trauma.

And, General Travis, I will pass it on to you to give the specifics of that.

General TRAVIS. Yes, sir.

Of course, we are very proud of that, that C-STARS training platform, which provided so much just-in-time training, but we have an embedded cadre of folks up there who are not only teaching our high-acuity or trauma teams, not just doctors, but nurses, technicians before they go downrange. They are also now collaborating in a lot of research, and have been for years.

So the effort you talk about, and we have similar institutions or agreements with Cincinnati, St. Louis, and now University Medical Center in Las Vegas.

Mr. RUPPERSBERGER. That is good. It is expanding. For the record, Maryland Shock Trauma saved my life and I am on the board there.

General TRAVIS. Yes, sir.

Mr. RUPPERSBERGER. And how long has the military been at Shock Trauma with fellows?

General TRAVIS. Got to be going on 20 years.

Mr. RUPPERSBERGER. Twenty years at least, and it has been very beneficial.

General TRAVIS. Dr. Scalea has been incredibly supportive.

Mr. RUPPERSBERGER. No question.

General TRAVIS. And he has participated in the visiting professor discussion that General Robb brought up.

Mr. RUPPERSBERGER. Okay. Yield back.

Mr. FRELINGHUYSEN. I want to put in a plug for those who do the search and rescue at C-STARS too.

General TRAVIS. Yes, sir.

UPDATE ON BRENDAN MARROCCO

Mr. FRELINGHUYSEN. They do some pretty remarkable, courageous things.

Mr. WOMACK.

Mr. WOMACK. I thank the chairman. And once again I join my colleagues in thanking this distinguished panel in front of us today. And my question will follow the lines that Dutch brought up and a couple of others before me.

General Horoho, it is great to see you again.

We were talking about the continuum of care. And I believe our country is a great country in part because of our ability, from the combat lifesaver all the way through the process, to the care and the well-being back here in the States, and the reintegration of our warfighters back into society despite what has happened to them.

General Horoho, you know, because you were the person that introduced this panel to Brendan Marrocco. Now, everybody up here

probably has somebody from their district who could be that poster child, that example, if you will, of this continuum of care, this capacity of our country to do what we do remarkably on the battlefield. And this young man is not from my district, he is from Staten Island. I can't think of a better example of a person who is just indeed fortunate to be alive today because of what we were able to do at the time of impact and the rapid distribution of this young man back through this echelon of care, beginning with, I think it was a Navy corpsman that rendered aid to him at the time this happened.

And for my colleagues that don't remember, this was the first soldier, correct me if I am wrong, that survived double arm——

General HOROHO. Quadruple amputee. Yes, sir.

Mr. WOMACK. Yeah. Quadruple amputee and double arm-hand transplant surgery.

General HOROHO. Yes, sir.

Mr. WOMACK. Help me understand where he is today. Can you update me on his progress?

General HOROHO. Yes, sir. It is my honor.

Brendan is doing really well. He was one of seven who received a double arm transplant. He now has feelings in his fingers and his hands. He is doing exactly what he wanted to do prior to the transplant, he is driving. And so he has a truck and another vehicle, and that is kind of his pride and joy right now. And he is down to only taking one drug for rejection, which is absolutely amazing.

And I think he represents, really, the impact of a joint system and the impact of taking the best care possible far forward on the battlefield and then having every echelon of care engaged in that throughout.

And then the other thing that I think he is such a role model for is that was a collaboration with the civilian community, with major universities, with research that had been funded years ago looking at transplantation and immunosuppressant medication. And all of that coming together allowed him to be able to have a successful hand and arm transplant surgery.

We have got seven right now that are on a waiting list across the Nation. Three of them are soldiers for face and hand transplants. And right now face and hand transplants now are considered, it happened this year, as an organ. So now they are on the donation list, which will open that up to many Americans and many soldiers, sailors, airmen and marines.

Mr. WOMACK. His story, you know, dates back to really, I think, Easter Sunday of 2009, wasn't it?

General HOROHO. 2005.

RESEARCH FUNDING

Mr. WOMACK. Or 2005. And so here we are now 10 years later. I just think it is one of the most remarkable things I have ever read about. And being able to meet the young man in person, I just think it is incredible.

Can you help me understand what accounts in our budgeting make this kind of a story possible, so that my colleagues can understand what it is that we are doing and what more we can do?

General HOROHO. So actually Matt Nathan just brought up, we have the AFIRM project that is now on the second phase of this consortium that actually started at Wake Forest University, but brings in the best of civilian researchers, along with our researchers together really looking at how do we improve burn care, transplantation, rehabilitative medicine. And that has actually funneled money, instead of individual silos competing for those dollars, it has actually put it together as a very collaborative group, which I think is a forum, that consortium concept, that will allow us to actually tackle some other major issues that we need to be looking at across the United States.

So I think the ability to continue funding those types of consortiums, that takes down the parochialisms and groups fighting for the same dollars, but rather targets military relevancy and U.S. relevancy in research that we are trying to struggle and solve the issues for.

That has been very, very beneficial. They have just actually developed a mechanism that will stretch out the skin so that it reduces scars after major trauma. They have developed a prototype for skin that is not from the human body, that allows it to be grown, and so when we look at all the burn patients that we have out there. And so they have really just advanced medicine light years.

Mr. WOMACK. Wow.

Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. For the record, could you break down the acronym you referred to? I am searching for it up here, but it has obviously done some remarkable things.

General HOROHO. It is AFIRM, Armed Forces Medical Research—

General ROBB. Institute of Regenerative—

General HOROHO. Medicine. Thank you.

Mr. FRELINGHUYSEN. Thank you very much.

General HOROHO. Thank you. It takes a team to get an acronym.

General TRAVIS. Sir, just a comment, if you don't mind.

SEQUESTRATION EFFECTS

Mr. FRELINGHUYSEN. Yes, sir.

General TRAVIS. Sequestration is a threat to research dollars. You know, we try to protect health care as best we can in our facilities. You don't want to close your doors, because if they don't come to see us for their health care, they go downtown to TRICARE, to the network, and that costs DoD still money.

So with sequestration pressures, things like restoration and modernization, sustainment of our facilities, and research dollars take a hit. And not just the organic research dollars for the military medical community, but also, frankly, some of our partner institutions were impacted by sequestration last time.

Mr. FRELINGHUYSEN. General, I can assure you that everybody on this panel hates sequestration, and we firmly agree with you it is a straitjacket we would like to get out of sooner rather than later. But we are under the Budget Control Act, the President signed it into law. So we will try to extricate ourselves in a way that does minimum amount of harm to the important work you do.

Mr. Ryan.

HEALTH ASSESSMENTS

Mr. RYAN. Thank you, Mr. Chairman.

Thank you for your service.

I want to kind of go off what Mr. Womack was saying about this continuum of care. We sit in a committee hearing like this and we talk about defense health care, and then we will have another subcommittee that will talk about veterans health care. I want to understand better on how we can integrate the two and what the transitions are.

I was in a, I guess it was a workshop, a couple weeks ago in Ohio, it is called Project Welcome Home Troops, where they deal with trauma victims that are veterans, and there were men and women in there, multiple tours, lots of post-traumatic stress, military sexual trauma. So there was a lot going on there that those folks weren't accessing the VA.

And so I want to kind of understand, go back to the front end, if you can, somebody on the panel, can explain, what are the physical assessments that are done when you come into the military initially?

Admiral NATHAN. One of the things that has evolved, sir, over the past is we now do baseline cognitive studies for people prior to deployment. That was borne out of potential TBI and concussion—

Mr. RYAN. What is the physical?

Admiral NATHAN. If you are talking about the mind, spirit—

Mr. RYAN. Well, we will get to—

General HOROHO. You are talking, sir, about right when they—

Mr. RYAN. As soon as they come in, yeah, physical evaluation. Health, body mass, blood pressure, whatever.

General HOROHO. So they actually through our MEP stations, they look at the physical requirements, what their health history is, they do their weight. They have a behavioral health questionnaire.

The challenge with that is that it is self-disclosure. And DoD has been working aggressively over the last several years to see is there any tool out there that would allow for teasing out that information vice having someone self-disclose, because if they desire to come on Active Duty and they self-disclose, then they make themselves not acceptable to come in Active Duty depending on the type of illness.

So it is kind of Catch-22. So we haven't found a tool that allows us to tease that out without having the input from our soldiers, sailors, airmen, marines. There also isn't a national electronic health system that you could go into that record and look at that. So one of the questions was is we could look at the children of prior servicemembers, but then do you disadvantage them, because we have their electronic health record where we could pull the behavior health, but they are going to then be at a disadvantage for those that are recruits across the United States. So that has been another area in which we have looked at.

And so we have a different entry criteria for your weight, so you can be weighing more than what you can for meeting the retention

on Active Duty, but once they go to basic, then we work to get them into compliance.

Mr. RYAN. So just not to get very elementary here, but push-ups, sit-ups, run a mile?

General HOROHO. Once they come on Active Duty then they have that criteria.

Mr. RYAN. Once they get on Active Duty.

General HOROHO. But prior to, it really is to see are you physically and mentally fit and do you have any legal issues or ethical issues that would preclude you from serving in our armed forces.

TRANSITION FROM ACTIVE DUTY TO VETERAN STATUS

Mr. RYAN. I will come back to this, I guess, in the second round of questions if we have a second round of questions.

So the next question is through the transition. So you are done now. You did one, two, three, four, five tours. Those people who I was with a few weeks ago somehow slipped through the cracks, and I think we all have to take some responsibility for this when there are 22 suicides a day for veterans.

So can you walk me through what the transition is? So I am done, checked my gun, my uniform, I am ready to go home. What is the transition for me as I move out? I know there is a difference if you sense some kind of post-traumatic stress or TBI, that may put you on one track, but just for the average person who you don't notice anything, is there a transition out of the military that we have in place?

Admiral NATHAN. Yes, sir. The current system, although people may fall through the cracks, but it is designed to provide everybody who leaves the Service gets an inventory of their health, both their mental health and their physical health prior to transition. It is required. And we are making it more and more congruent with the VA system. It is not perfectly congruent yet, but it is designed to have as less repetition as necessary or as possible so that you don't have to repeat the same groundwork you did leaving the Service once you get to the VA, so the VA has more visibility on what is happening with respect to the separation physicals.

During those physicals now, what has been instilled in those histories and physicals is a specific targeting and questioning on mental health issues, challenge, difficulty with sleep, questions about self-harm to yourself or to others. These are designed into the system. Now, it doesn't mean that somebody doesn't fall through the cracks and those things aren't performed, but what I just said is policy. You don't leave the Service without them.

Mr. RYAN. Yeah. And I—

Mr. FRELINGHUYSEN. I want to get to Mr. Diaz-Balart just before he has a conflict. But I do want to get—

Mr. RYAN. Are you saying he is more important than me, Mr. Chairman?

Mr. FRELINGHUYSEN. Certainly not. No one is more important than you as a Buckeye.

Mr. RYAN. He is the chairman of the subcommittee that I sit on.

I just make the last point and then I will come back. I mean, I think we have got to think through, because I have talked to men and women who have gone through this, and they lie. They say,

yeah, I am fine. They know you are going to ask about sleep, they know you are going to ask about do they have thoughts about killing themselves, they know what the questioning is going to be, and they mislead in the transition out. They have told me this. And then 6 months later those symptoms are much, much worse than they were when they were actually just kind of fudging, and it got worse and then here we are. They don't want to access the VA, and now we are stuck.

So I want to talk in the next round about what kind of better transition, not just the questioning, but is there a program, doesn't have to be long, but is there something we can put everybody through to help reduce this great challenge that we all have.

Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. There will be a response, Mr. Ryan. There is a program, requirements that Congress has directed that certain things be done.

And you are going to be more specific in response at the next round of questioning.

Mr. Diaz-Balart.

Mr. DIAZ-BALART. Mr. Chairman, thank you very much. I actually, as you just stated, I have to step out. I have been called out for the budget conference.

Mr. FRELINGHUYSEN. We will call you out any time, but let's get moving here.

Mr. DIAZ-BALART. Thank you. No, I will step out. I just want to thank you all for your service.

And thank you, Mr. Chairman. I apologize that I have to run out.

Mr. FRELINGHUYSEN. Okay. I didn't know you were leaving.

Ms. Kaptur.

Mr. RYAN. Reclaiming my time.

Mr. FRELINGHUYSEN. Okay. Let's get Ms. Kaptur first and then we will get to others.

COST OF PHARMACEUTICALS

Ms. KAPTUR. Thank you, Mr. Chairman.

Welcome. Let me add my words of congratulations and thanks for the service of Dr. Travis and also General Horoho. Thank you both very much for your service to our country. This has been a very difficult period, and I know you have risen to the occasion admirably. We thank you. The people you serve most of all thank you. The American people thank you.

I wanted to ask if you have today or if you could provide to the record the amount of your budget overall that pharmaceuticals now consume compared to, let's say, 2000, the base year of 2000. We have heard today about the compounding pharmaceutical issue rising from \$5 million to \$700 million. That is really a staggering increase by any measure. But what about brand name drugs and generic? Do any of you have those numbers now or could you give us a general sense of how that has increased over the decade?

General HOROHO. No. I was going to say, I will take that for the record of knowing the percentage from 2000 to now.

[The information follows:]

Pharmaceutical expenditures as a percent of the total Defense Health Program funding for the Medical Command was 10.25% (\$305.2 million) in FY2000. It in-

creased to 15.73% (\$676.2 million) in FY2004 and has since decreased and stabilized to approximately 11% (averaging \$822 million) from FY2012 to present. Over this time period, Congress provided funding for special programs in support of Wounded, Ill and Injured, increasing access to care for behavioral health, traumatic brain injury and post-traumatic stress. The funding trend for pharmaceuticals reflects these increases in access to care.

The percent of Army Medicine's pharmaceutical expenditures attributed to generic drugs ranged from 10.73% (\$48.9 million) in FY2005 to 23.19% (\$197 million) in FY2015. Data from FY2000 to FY2004 is not available. The increasing expenditure attributed to generic drugs at MTF pharmacies reflects ongoing efforts to adopt national pharmaceutical contracts and brand to generic conversions.

General ROBB. Right. We can get back to you on that. But one of the other initiatives that has occurred with the Defense Health Agency's standup primarily in the logistics arena, when you talk about generics versus brand names, because of the centralized efforts with not only our pharmacy division but also our logistics division, our actual compliance with using the generic drugs over the brand name drugs when the choice is there has actually doubled to save money for us. And I can get you the specific numbers.

[The information follows:]

- FY 2002 generic medications accounted for 17% of outpatient pharmacy expenditures but provided coverage of over 55% of the prescriptions filled (based on 30 Day Equivalent (DE) prescriptions).
- FY 2014 generic medications increased to 30% of outpatient pharmacy expenditures but provided coverage of over 76% of the prescriptions filled (based on 30 DE prescriptions).

For MTF pharmacy outpatient prescription only:

- FY 2002 generic medications accounted for 20% of outpatient pharmacy expenditures and provided coverage of over 58% of the prescriptions filled (based on 30 DE prescriptions).
- FY 2014 generic medications accounted for 35% of outpatient pharmacy expenditures and provided coverage of over 84% of the prescriptions filled (based on 30 DE prescriptions).

General ROBB. But using the national pharmacy contracts and also using the generics, again, we have greatly increased our compliance through the efforts of the Defense Health Agency both in the logistics and the pharmacy division.

Ms. KAPTUR. I am hearing the words you are saying, but I am not completely understanding what they mean.

General ROBB. My sense is that you were asking how are we being good stewards of the taxpayers' money with the opportunities and the tools we have. And, again, through the modernization and, again, the upgrades of our management system, before we had the Army, the Navy, and the Air Force—again, doing a great job—but now we have brought those folks together in a more centralized approach.

Ms. KAPTUR. All right. General Robb, if \$700 million is being requested for this coming fiscal year for the costs of the compounding pharmaceuticals, would you expect the brand and generics to be triple that, double that? How large is the pharmaceutical portion of your budgets?

Admiral NATHAN. We will have to take that for the record.

General ROBB. We will have to take that for the record.

[The information follows:]

Navy Medicine's President's Budget, fiscal year (FY) 2015 pharmacy allocation is \$339.3 million. Navy Medicine's President's Budget, FY 2015 Operations and Maintenance, Defense Health Program (O&M, DHP) budget is \$3.113 billion, with pharmacy accounting for 10.9% of the O&M, DHP budget.

The following information is based on data extracted from the Department of Defense (DoD) Pharmacy Data Transaction Service (PDTS) from Fiscal Year (FY) 2002 through 1st Quarter FY 2015. The PDTS was fully operational beginning in 2002 so data is not available back to 2000. The following Pharmacy Spend and utilization data below shows the increase in Brand and Generic expenditures (Pharmacy Spend).

The increase spend for brand and generic pharmaceuticals across all three points of service (mail, retail, and military treatment facility (MTF) pharmacies) comparing the first quarter of FY14 to the first quarter of FY15 is shown below with an overall growth of 8% in expenditures year-over-year, excluding compounds. Extrapolating this quarter increase of \$146 million would project an increase of approximately \$584 million for the year in outpatient expenditures, not accounting for changes in utilization, prices changes, and other confounders. The anticipated growth in brand and generic costs of pharmaceuticals is already contained in the FY2015 funding for pharmacy.

		Brand	Generic	Total
2014	FY14Q1	\$1,216 M	\$505 M	\$1,721 M
2015	FY15Q1	\$1,281 M	\$586 M	\$1,867 M
Increase Spend Year over Year (YOY)		\$65 M	\$81 M	\$146 M
Increase Percent Spend YOY		5%	16%	8%

The FY2015 funding for the entire pharmacy program is \$8,246 M, or 26% of the Military Health System Operations and Maintenance Budget of \$31,715 M for FY2015.

Ms. KAPTUR. It is shocking to me that you don't know the number, actually.

Admiral NATHAN. Well, we know that the figure that is bandied about for the next 5-year budget for pharmaceutical costs to the DHP is going to be in excess of \$40 billion, just for the pharmaceutical footprint alone.

Ms. KAPTUR. All right.

Admiral NATHAN. And I would ask that I be allowed to come back on the record for the exact number. But we take the gravity of what pharmaceutical costs very seriously. On the one hand, the pharmaceutical advances in this country have allowed people to be treated as an outpatient because of some of the advanced therapies and save tremendous money from in-patient care. And on the other hand, the military, I think, has done a pretty good job of looking hard at efficacy of generic versus brand name costs as they implement and adjust the pharmacy copays.

BRAND NAME VERSUS GENERIC DRUGS

Ms. KAPTUR. I appreciate the specificity of your reply. And let me ask you this. In the area of psychiatric and neurological health, one of the most difficult diagnoses relates to those conditions. And I have evidence in my district, not in the military sector, but in the civilian, that because of the pressure on the application of using generics as opposed to brand name, many of those who have been diagnosed with very serious neuropsychiatric conditions and stabilized are being taken off their brand name medicines and given generics because of servicers, when the servicers get involved.

And I want to ask you, how are you protecting the patients that will come under your care from that kind of decision by insurance companies or servicers as opposed to doctors? I am concerned about costs, but I am also concerned about patient care. And if people are taken off brand name pharmaceuticals when they need them, what

happens is it costs you more in the long run because they come back into the emergency rooms, if they are alive.

So could you address how you as physicians and medical care professionals are preventing that kind of abuse of the patients under your care in the neuropsychiatric arena?

General HOROHO. So, ma'am, I will take that first, if that is okay, because I would like to, if I could just expand it a little bit, because part of the aggressiveness that we have been doing when we look at behavior health and psychological health is to really look and say how do we decrease reliance on pharmaceuticals in the first place, and then prescribe pharmaceuticals when they are absolutely needed.

And so we have actually had our primary care physicians that are trained in behavior health, we have embedded behavior health in our primary care, we are using acupuncture, yoga, and mindfulness to be able to decrease the reliance on pharmaceutical. We have seen a 50 percent reduction in reliance in that area. We have seen, just in opiate usage, we were at 6 percent for a 6-month usage and we have gotten that down to 2.4 percent. And when you look at all the other things that come from relying too much on opiates—

Ms. KAPTUR. What if they are bipolar, ma'am?

General HOROHO. I still believe there is medication that absolutely needs to be used for bipolar, but I also believe part of what is more important is to do a comprehensive and holistic care of our servicemembers or their family members that have depression, that have bipolar, that have other behavior health issues.

We do look at is there a medication that will be able to have the outcome that we desire, is it generic or does it need to be the labeled medication, but how do we incorporate all these other pieces to it?

We have also used two other things that I think are very impactful. We have seen a 64 percent reduction in inpatient hospitalization by taking our healthcare providers outside of bricks and mortars and putting them in where our soldiers are actually working every day to increase that habitual relationship. And then we increased from a million outpatient visits to 2 million outpatient visits, which means people are seeking more care.

And so I think it has to be this holistic look, because we will never in the U.S. have enough behavior health providers to be able to treat all of the conditions that we have and the demand in the stressful world. And so my concern is, is that we do have to take it from a holistic approach and then look at applying the right medication in time to do that.

And so we do now have comparable when they leave the Active Duty and they go into the VA system, we now have an agreement with the VA where they can use the same type of behavior health medication that they were on while they were serving on Active Duty. That is a huge change over this last year.

OHIO NATIONAL GUARD STUDY

Ms. KAPTUR. Could I ask you to please look at the Ohio National Guard study that has been ongoing for several years now?

General HOROHO. Yeah. I have got it.

Ms. KAPTUR. Are you aware of that?

General HOROHO. I am. And there has been actually some very good data that has come out of that of being able to link PTSD, childhood adversity, and then generic variants, and to look at how did those all come into play, because that then changes the treatment. And there has been work that has been done at looking at the lowest rate of psychiatric health service use in servicemembers, also having that tied to substance abuse disorder, and then saying how do we then insert our healthcare capabilities so that we decrease the reduction of reliance on alcohol and other substance abuse measures that are there.

And I think probably the biggest thing that has come out of that study is when we looked at the same model in civilian stressors were significantly predictive of subsequent alcohol use disorders, while traumatic events experienced during the following combat were not. And so I think when we look at the Reserves, the National Guard, I think it is important for us to factor in that piece of their life when we are really looking at health readiness for our servicemembers.

Mr. FRELINGHUYSEN. Thank you, Ms. Kaptur. We are going to have another round in a few minutes here.

Mr. Aderholt, thanks for your patience.

EXPRESS SCRIPTS

Mr. ADERHOLT. Thank you. Thank you.

And thanks for being here.

I want to ask about—maybe address this to General Robb, but certainly open to anyone—we hear constituent concerns about Express Scripts. And the question will be, what is the DoD doing to resolve the issue before this program is going to be expanded significantly to more beneficiaries?

General ROBB. If we could get the specifics. I am not aware of any performance or customer service feedback at my level with Express Scripts.

Mr. ADERHOLT. Okay.

General ROBB. But our folks, again, are absolutely dedicated to, one, either compliance with the contractual agreement, or number two, to address specific customer service needs.

Mr. ADERHOLT. Okay. Well, if we could get with you on that, we do have some concerns and questions that we are getting from constituents about that.

Ms. KAPTUR. Would the gentleman yield on that point?

Mr. ADERHOLT. Yes, I would yield.

Ms. KAPTUR. Could I kindly ask whether there is a complaint line in each of your departments for those who are having trouble with the servicer?

General TRAVIS. Yes.

General ROBB. Yes, sir.

General HOROHO. Absolutely.

Mr. FRELINGHUYSEN. Let's hope we have a complaint line. If we don't, we should establish one immediately. I am sure we do.

General HOROHO. We do.

Admiral NATHAN. Yes.

Mr. FRELINGHUYSEN. Mr. Aderholt.

NEUROFIBROMATOSIS

Mr. ADERHOLT. Okay. Let me ask about neurofibromatosis. It is a mouthful, so I will call it NF. It is, of course, a severely debilitating disorder, manifests similar to problems our warfighters struggle with, chronic pain, severe back, breaks in the bones, wound healing, nerve issue. The Congressionally Directed Medical Research Program has consistently supported the peer review NF research Program since 1996. With this investment, NF research has made considerable progress, from identifying the major functions of the NF genes to developing sophisticated animal models, which are now used in preclinical trials.

The Clinical Trials Consortium, the first forum for NF research to collaborate on clinical trials, is primarily supported through the Congressionally Directed Medical Research Program and its funding and would not be able to function without its support. The NF community recognizes and appreciates the NF research program as an efficiently run model of the Defense Health Research Program.

To further this success, are there additional opportunities for the Department to support the Clinical Trials Consortium in moving closer to therapies for NF and conditions related to this debilitating disorder? Let me just throw it up to the panel, if anyone could address that.

Admiral NATHAN. I can't give you a specific answer on the offshoots of the NF, sir, but the generic answer is, yes, there is always opportunity to widen the aperture of these musculoskeletal and genetically based injuries and deficiencies, diseases that can create the problems. And so let me get back, let us all get back to our experts who are engaged in this research.

[The information follows:]

Navy Medicine appreciates the value of the Clinical Trials Consortium in the development and testing of medications that may be helpful in preventing or treating complications from the different forms of neurofibromatosis. We further recognize the potential of such a consortium to develop and test new therapeutic approaches to problems that our warfighters struggle with, such as chronic pain and wound healing. While I defer to my Army colleagues to identify how the Congressionally Directed Military Research Program (CDMRP) could expand the portfolio of the Clinical Trials Consortium to include interventions for the most significant injuries and illnesses facing our warfighters, I can speak to work being done by Navy Medicine to develop and evaluate new strategies and products to protect, protect, treat, and rehabilitate our ill and injured comrades. Furthermore, I can assure you that my Navy Medicine research program managers and researchers are aggressively product oriented and will enthusiastically collaborate with the clinician, hospital, institute or consortium, to include the Clinical Trials Consortium for Neurofibromatosis, which offers the most expeditious path to a successful intervention.

Admiral NATHAN. Now that the research is being collaboratively shared across the enterprise through the Defense Health Agency, we have an entree to be able to do these things jointly as opposed to stovepipe. So I think we can get you a more expedient answer.

TRICARE FOR LIFE

Mr. ADERHOLT. Okay. That would be helpful if you could follow up on that.

Let me switch gears to TRICARE For Life. This year's budget request, again, includes cost savings through the addition of a TRICARE For Life annual fee. The question would be is, what is

the formula or the criteria that would be used to determine who is grandfathered into the TRICARE For Life and who will be required to pay for this annual fee?

General ROBB. Sir, that would be my question, and the exact formula, sir, we can get back to you on that.

[The information follows:]

First, those already on TFL as of January 1, 2016 will be grandfathered and will not have an enrollment fee. Second, for those enrolling in TFL after that date, the fee is ramped over a four year period allowing for planning for this expense. Third, the enrollment fee is tied to their annual retirement pay, so that those having a small retirement pay less than those who receive greater compensation. In CY 2019, the enrollment fee will be 1% of retirement pay with a cap of \$150 per year per TFL beneficiary. Comparable "Medigap" policies carried premiums of \$2,200 per individual in 2010.

Mr. ADERHOLT. And just to follow up, have you considered and do you have the statistics on the number of retirees that——

Mr. FRELINGHUYSEN. Would the gentleman yield?

Mr. ADERHOLT. I will.

Mr. FRELINGHUYSEN. We don't have a response. Who is grandfathered in?

General ROBB. I would have to get back to you on that.

Mr. FRELINGHUYSEN. Okay. Does anyone on the panel know that?

General HOROHO. My assumption, and we will make sure that it is accurate, is that those that have it today would be grandfathered in, and then it would be the new population that would age into it.

General ROBB. Yeah. But I want to make sure we have that.

Mr. FRELINGHUYSEN. I thank the gentleman for yielding.

Mr. ADERHOLT. Okay. And then, like I said, have you considered and do you have the statistics on the number of retirees that this change will affect?

General ROBB. We can get that for you.

[The information follows:]

The estimates of those beneficiaries who will pay a TFL enrollment fee are:

CY2016: 48,079

CY2017: 140,737

CY2018: 256,757

CY2019: 371,738

CY2020: 487,882

COST DRIVERS IN THE MHS

Mr. ADERHOLT. Okay. All right. Thank you.

Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you.

To General Robb, we have talked about one of the main cost drivers, which is pharmaceuticals. What are two other cost drivers?

General ROBB. For the military healthcare system?

Mr. FRELINGHUYSEN. Yeah. Absolutely, yeah.

General ROBB. Well, pharmacy is the big one, absolutely. And I think the other large areas are the execution of our direct care system, in other words, our direct health care——

Mr. FRELINGHUYSEN. Well, let me help you out a little bit here. In your testimony here you say the fiscal year 2016 Department of Defense is requesting \$32.2 billion for the Defense Health Program.

Of this request, nearly \$24 billion will support direct patient care activities in our military hospitals and clinics, as well as care purchased from our other civilian sector partners. Surely that is one of the cost drivers.

General ROBB. Yes, sir.

Mr. FRELINGHUYSEN. Could you talk to the committee about why that is a cost driver and how we are going to lower the cost curve?

General ROBB. Well, that is precisely. So we are in the healthcare delivery business, and the direct care system, which is our brick and mortar, along with our TRICARE health network are two primary expenditures in the delivery of health care.

So as far as the TRICARE bill, as you know, we have put out a proposal for what we call the next-generation TRICARE contract, and many of the lines of effort in that new proposal will address continued cost containment in the TRICARE network. Some of the advances that we are looking at for our new managed support care contracts, number one is going from three regions to two, which should decrease the overhead, but it will also make it easier for us to transition from region to region. Another area that we are looking at—

PRIVATE SECTOR CARE COSTS

Mr. FRELINGHUYSEN. Maybe a few more specifics here. I do want to ask about the viability of our military hospitals and clinics, but I am interested in the dollar figures that we purchase from civilian sector partners. Do we have any figures here?

Admiral NATHAN. We can get you the exact figures.

General ROBB. We can get you those numbers.

[The information follows:]

According to Defense Health Agency accounting system reports, the total Navy and Marine Corps private sector care costs for the Defense Health Program (DHP) in Fiscal Year 2014 was approximately \$4.6 billion. I defer to the Director, Defense Health Agency to provide you the total private sector care costs for the entire Defense Health Program.

The costs (rounded to the nearest thousand dollars) associated with medical and dental care plus pharmaceuticals received by Department of Defense (DoD) eligible beneficiaries in the civilian private sector only, excluding Overseas Contingency Operations (OCO) funding are:

FY 2013 actuals: \$14,274,543,000
 FY 2014 actuals: \$14,458,602,000
 FY 2015 estimate: \$14,503,759,000
 FY 2016 request: \$14,892,683,000

Admiral NATHAN. But over 50 percent of the DHP dollar currently goes to the private sector.

Mr. FRELINGHUYSEN. Yeah. And actually how do we know, for instance, that the money is well spent? I assume that we have the quality of care in our facilities, which I will ask about specifically.

Admiral NATHAN. Yes, sir.

Mr. FRELINGHUYSEN. But how do we know and judge where 50 percent of the people go?

Admiral NATHAN. You are echoing one of the concerns that was raised during the Military Health System review, and it was, how do we monitor the quality of the care that we provide, or that we fund, we pay for, when we either can't provide the care ourselves and have to send the patient out or the patient lives in an area

where they don't have proximity to a military treatment facility, so they go to the private sector broker to the health networks.

Mr. FRELINGHUYSEN. So how would you judge, since I know you do a remarkable job, all three of you do, how would you judge the track record of some of these facilities where we make substantial investments?

Admiral NATHAN. Well, quite frankly, we don't have the visibility on the quality and the care other than that when we send people outside, we send them to accredited organizations that are Joint Commission accredited, but we don't have the same visibility in the external system previously that we do in our own system.

Mr. FRELINGHUYSEN. So it is not only a question of visibility, there is a question of cost. And I am trying to nail just for the committee here, besides the high spike in pharmaceuticals, is this one of the areas where——

General TRAVIS. Yes, sir.

Mr. FRELINGHUYSEN [continuing]. There is some uncertainty as to——

Admiral NATHAN. Absolutely.

Mr. FRELINGHUYSEN [continuing]. What the bills would be?

General TRAVIS. We are pledged to total transparency on our costs and the quality of our care. And the MHS review, frankly, was a real positive energy source for that.

On the other hand, with the folks that go outside, and as Admiral Nathan said, it is a higher percentage go outside in certainly some of our networks for that care, and one is they may or may not participate in the voluntary reporting that we participate in where you can see the quality of the care you provide.

And the same pressures that have raised healthcare costs across the Nation certainly impact our networks. So the next TRICARE contract, the MHS review and the opportunity to have visibility into cost and quality and safety, that is part of this discussion.

Mr. FRELINGHUYSEN. So the aspect that is sort of escaping here is that we don't have a dollar amount, or do we have a dollar amount, for what we do on the civilian side for the very people that all of us are——

General ROBB. Yes, we do.

Mr. FRELINGHUYSEN. What is the dollar amount?

General ROBB. I can get that, the exact number for you.

[The information follows:]

The costs (rounded to the nearest thousand dollars) associated with medical and dental care plus pharmaceuticals received by Department of Defense (DoD) eligible beneficiaries in the civilian private sector only, excluding Overseas Contingency Operations (OCO) funding are:

FY 2013 actuals: \$14,274,543,000
 FY 2014 actuals: \$14,458,602,000
 FY 2015 estimate: \$14,503,759,000
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Ms. MCCOLLUM. Would the chair yield?

Mr. FRELINGHUYSEN. Yeah, I would be happy to yield to the Congresswoman.

Ms. MCCOLLUM. I am going to yield to you, sir. The question is, so different States have different transparency models. So I am from Minnesota. We have a very high transparency model. So I think we could look at some States, I think you would be able to

get that information from some States. And the fact that some States provide that, I mean, you are issuing a contract.

Mr. Chair, as part of the contract, we should be able to ask for that information, because many States are starting to provide that now. And I think you have a great line of questioning there.

Mr. FRELINGHUYSEN. Well, let me say just for the record, in your operations and maintenance portion in your budget, price and program, I see a private sector care amount of, it says \$14 billion? \$14 billion. Does that strike a bell here, or is that an accurate figure?

General HOROHO. Yes, sir. And I think it has been between 14 to 16.

Mr. FRELINGHUYSEN. I am not only concerned about the figure. I am concerned about whether, to you, whether the care that our good people get, our men and women in the military, are you satisfied with care you are getting for that type of investment?

General HOROHO. Sir, if I could just comment a couple things. I will put it a big picture, maybe bring it down.

Mr. FRELINGHUYSEN. Yeah.

General HOROHO. So when we did the MHS review, one of the challenges when we were trying to compare ourselves to the civilian sector was to have transparency of data. So when we looked in the area of perinatal care, only 84 hospitals out of 5,000 in the U.S. actually share their data, and those are the 84 hospitals across the U.S. that want to be the leaders in OB and perinatal care. Then when we looked through the lens of surgical care, less than 10 percent of the facilities in the United States that actually provide surgical care provide their data.

So there isn't transparency of data within the U.S. system except for certain States that have made a decision that that data is there. So when we look at quality and safety, we are not comparing apples to oranges. When we look at, there are places, TRICARE in itself, when they just had the survey of the top healthcare plans in the Nation, TRICARE actually was the number one healthcare plan in the Nation, that just came out of the report, and the second one was Kaiser Permanente.

So I think when we look at our servicemembers or family members going into the civilian sector to these pre-approved places, we believe there is a certain level of care, but you can't validate that through. When you look at it for cost, that is a different issue.

When we look at any patient—I will give the best example—when a patient goes out into the civilian sector for physical therapy, they on average get about between 20 to 24 visits. When we look at the same injury and the same type of care that is provided within our military treatment facilities, it is seven to eight visits. So you look at the additional cost of those visits. And I think that is what multiplies the cost of care in the civilian sector.

Mr. FRELINGHUYSEN. But you would have to take it as a layperson to say that if you have 24 visits, it must be related to the person's disability or condition, and certainly 24 visits would be better than maybe seven or eight.

General HOROHO. But not when you look at health outcomes.

Mr. FRELINGHUYSEN. Okay.

General HOROHO. And that is the most important thing, not the episode of care.

Mr. FRELINGHUYSEN. Let's look at health outcomes.
General HOROHO. Yes, sir.

RATING OF MILITARY TREATMENT FACILITIES

Mr. FRELINGHUYSEN. Can you tell me, of the 56 hospitals, the 359 medical clinics, the dental clinics that we have, what are the outcomes there? I have an interest. I am sure members do. I know our civilian hospitals are rated. How are our hospitals rated?

General HOROHO. Sure.

Mr. FRELINGHUYSEN. Anecdotally, of course, from time to time we hear of issues, i.e., you certainly don't want to have a baby delivered where they only deliver 90 babies a year. It might be good to go to a place where they have several thousand.

Is there a rating system for our hospitals, and where do we stand, if there is a rating system, in terms of similar systems for the civilians?

General TRAVIS. The reporting that General Horoho indicated are exactly what we did the deep dive on last year to where we know the quality of our facilities where we do OB and perinatal care, where we do surgery and what the outcomes are.

Mr. FRELINGHUYSEN. So how are we doing?

General TRAVIS. Overall we are doing very well.

General HOROHO. Very good.

General ROBB. Very well.

General HOROHO. So if I could just kind of, sir, put it in perspective. What we compared, and I talked about the 84 hospitals, so that is the best of the best, our military treatment facilities were, when the Secretary of Defense used the word "average," it wasn't average in the sense that we think of average, we were average of the best of the best. And then there were some areas where we exceeded the national rankings and there were some areas where we had outliers. That doesn't mean that it was poor quality or lack of safe care, it means that we were not in that band of the very best of the best.

And we all have plans that we have been working. Every single one of our facilities are accredited by the Joint Commission, there isn't one that isn't accredited, and we have met many of the outcome measures that we have identified. And those that we want to continue improving, because we believe for continual improvement, we have got those plans and we are monitoring each of those very, very closely.

Mr. FRELINGHUYSEN. Yeah. We are on your side.

Admiral NATHAN. If I could put a punctuation point on specifically what you are asking, because this is—

Mr. FRELINGHUYSEN. Because the NDIA has sort of changed the whole—

Admiral NATHAN. Yes, sir.

Mr. FRELINGHUYSEN [continuing]. Scope of our review and leadership around here. I just want to make sure that we are getting the best bang for the buck.

Admiral NATHAN. And this is why the Services are so focused on the next set of TRICARE contracts and working with the DHA to get this, because, in a practical example, if you were to walk into my hospital and say, I am going to have a procedure here, I am

going to deliver a baby here, I am going to have a joint replacement, can you tell me what percent of post-operative complications you have? Can you tell me what kind of outcomes you have? Can you tell me how many people have to be revised in surgery after I have done it? Yes, I can, every one of my facilities. I don't publish it enough, and we are doing that now, but I can tell you that.

If I send you to one of our network hospitals, not me, but if TRICARE sends you to one of the network hospitals, and you come to me and you say, you sent me to hospital X—okay, I didn't, TRICARE did, but we don't do that here, so you have to go to hospital X—can you tell me what hospital X's percentage? I cannot. Do you know how they are doing? I do not.

I know they are accredited, or we wouldn't send you there. You are going to have to ask hospital X if they will give you that information, because I can't give it to you.

Mr. FRELINGHUYSEN. Well, I don't mean to mix apples and oranges here, but in reality the private sector in some ways is way ahead on the electronic medical records, far ahead apparently than perhaps what we anticipated the relationship between the VA and the Department of Defense. Sometimes I think I know where I am going.

Mr. Visclosky.

TRICARE PROPOSALS AND NAVY MENTAL HEALTH PROGRAM

Mr. VISCLOSKY. Thank you, Mr. Chairman.

I would like to follow Ms. McCollum's lead, and I have a couple of thank yous. Annually there are TRICARE proposals that the administration has. I have spoken often that Congress has to step up here and make some decisions as well, but did point out in last year's hearing, General Robb, that I was concerned about one proposal that would negatively impact families that did not have access to a military treatment facility. And am pleased that as far as the proposals that have put forth this year, that concern that was expressed has been dealt with and eliminated. So I do want to thank you for listening to the committee.

Also, Admiral Nathan, in the past I have bitterly complained not about the Navy's commitment to helping people relative to the issue of suicide and mental health, but that the Navy has so many programs, they didn't have one good program. And you have established the 21st Century Sailor and Marine initiative, and it is my understanding there is some consolidation of programs taking place. So I would also want to thank you very much for that. I am assuming, again, there is more of a focus and fewer programs, if I understand that correctly.

Admiral NATHAN. Absolutely, sir. And the currents now run coordinated through Bureau of Personnel Code 17, and so this allows more coherency, removes redundancy, and is an area to capture best practices across the Navy so that we don't have all these green shoots popping up everywhere and we can standardize the application better.

Mr. VISCLOSKY. I appreciate, again, the Navy listening to the committee's concern.

Admiral NATHAN. Yes, sir.

MENTAL HEALTH SCREENINGS

Mr. VISCLOSKY. General Robb, I have a question on the Jacob Sexton Act that was authorized in the 2015 Defense Authorization Act requiring annual mental health screenings for Active, Guard, and Reserve military components. Could you update the subcommittee on the status of the implementation guidance for the new requirement and, if possible, an estimate as to when you anticipate it being finalized and distributed?

General ROBB. Sir, I will have to get back with the specifics on that to you.

[The information follows:]

The Department is integrating the annual mental health assessment requirement from the National Defense Authorization Act for Fiscal Year 2015 into the periodic health assessment process in an effort to standardize these assessments across the military components. This requirement has been incorporated into the draft Department of Defense Instruction for periodic health assessments which is currently in coordination. Based on timelines provided by Washington Headquarters Service, this Instruction is anticipated to be published in December 2015.

Mr. VISCLOSKY. Okay.

General ROBB. Yes, sir.

TRICARE PROPOSALS

Mr. VISCLOSKY. I would appreciate it. And also because it is a new requirement, if you have an estimate for the cost, and particularly if there is a cost associated with the fiscal year 2016 budget, whether or not you have adequate funds relative to the implementation. If not, if the committee could understand that.

Again, I would reiterate that on TRICARE proposals Congress is going to have to exhibit some intestinal fortitude, but would also think that the administration has to do a better job as far as, if you would, reaching out to retired populations, service organizations, and explaining exactly the need and what the implementations are.

For anyone on the panel, if I could ask two questions. One, do you feel more outreach and education on that side of this equation is taking place? And additionally, for some of the proposals, obviously there is always cost involved even if there is longer-term savings. Would the potential costs in the short term for 2016 be covered in your budget request?

General HOROHO. If we look at the area of billing for services that bringing in civilians into our military treatment facilities or the billing for ER services, that is going to have a substantial upfront cost. We did the analysis just at one of our major medical centers, and it is about additional 200 people and the additional software that would allow us to do that. And so when you look at that across 300 and something hospitals, that has a large price tag.

I really believe that when we look at how to drive down cost, I think part of what we have to be doing and what we have been doing over the last 3-1/2 years is we spend right now a billion dollars a year just in obesity-related diseases across our healthcare system every single year, and 70 percent of the demand on our healthcare system is due to obesity-related diseases. And so just by really focusing on the aspects of health and the area of sleep, activity, nutrition, and then focusing on our wellness centers, we have

62 percent of those that have gone to our wellness centers just one time have had a 4 percent decrease in body mass index and a 15 percent increase in cardiovascular output.

That right there, it saves us about \$200 to almost \$300 per percentage of body mass index. That in itself will allow us to look at how do we decrease the cost of health care and then better utilize the systems that we have to be able to provide care.

Mr. VISCLOSKY. The additional cost, do you have that included in the fiscal year 2016 request?

General HOROHO. No, sir, we do not, for what just got proposed, because the proposal went forward, but the actual business case analysis was not associated with it, and those are concerns that the Services raised.

Mr. VISCLOSKY. If some action is taken for 2016, let's be positive for a minute, would you be short some money for implementation then?

General HOROHO. Absolutely, sir.

Mr. VISCLOSKY. Could you for the record give us an estimate of that, because, again, we have the authorizers and ourselves. I think it would be important if there is some movement to make sure that you can proceed with the proposal. I appreciate that very much.

[The information follows:]

The PB16 Healthcare Reform proposal requires an infrastructure be created within the Military Health System to take copays both within the Emergency Department's for non-emergent visits, and throughout the Military Treatment Facilities for non-enrolled retirees. The infrastructure requirement would include a Business Intelligence System with a capability of tracking and managing co-payments on a scale commensurate with a civilian organization. The system would need to meet audit compliance laws and regulations. The cost associated with a new system could range from \$75M to \$150M annually. Additionally, we project the manpower requirement at MTFs and in back office functions would require nearly 1000 additional personnel across the command. Additional personnel in the MTFs would review and research disputes, provide audit and management of collections both at point of service and in a billing office. Back office personnel would be required to provide policy oversight and perform denial management. The total cost projected to build the infrastructure required to effectively manage collection of co-pays within the Army Military Treatment System is between \$87M to \$209M annually and would take between 18 and 24 months to implement once the Business Intelligence Capability Requirements are defined and in the process of being procured.

Mr. VISCLOSKY. General.

General TRAVIS. Just to your point about outreach, absolutely. I have personally walked into a room with 200 people that were TRICARE For Lifers and didn't know whether I would walk out.

Mr. VISCLOSKY. I was going say, you are here.

General TRAVIS. And I am.

Mr. VISCLOSKY. That is a positive.

General TRAVIS. And what is interesting is when you explain that the cost has really stayed flat all these years and the actual percentage of the benefit that is covered by the fees has gone down when you consider the cost of health care, 27 percent, I think, of the program was covered by fees when it was instituted in 1995, now it is down to about 11 percent, and that may be a little off. And everything that has been proposed last year, probably even this year, although I can't swear to it, I think gets us to about 13 percent of the benefit being covered.

And then you lay that against what we are really here to do, and that is the national security, and the percentage of the defense budget for this to be sustainable that this now eats. These are great patriots and Americans, and, frankly, I didn't get a single complaint out of those 200, and they got it, they understood it. So——

Mr. VISCLOSKY. I think outreach is important so people know there is transparency and nobody is pulling a fast one here.

Thank you very much.

Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you, Mr. Visclosky.

Ms. Granger.

ELECTRONIC HEALTH RECORDS

Ms. GRANGER. Could you just give us an update on the electronic health records? Tell us, do you have concern about the schedule, do you have concerns about the interoperability with the VA, kind of a general across-the-board where we are.

General ROBB. I will take that one. So I believe with, again, the effort that we have generated with a partnership with AT&T, and also with the Military Health System and the integrated program office, I believe that we have got a nucleus of folks that have got us to where we need to be as we move forward.

As you know, the electronic health record request for folks to submit their bids was last fall, and right now we are in the process of reviewing all those proposals. We should have a selection for the electronic health record vendor by mid to late summer.

After that, we will then use, beginning in the fall, we will use the next 6 to 9 months to take that electronic healthcare product and run it on what we call our virtual laboratories to run it, kind of what I call put it in the wind tunnel and test it, to see how it works both in the garrison arena and also in the operational arena.

Then, in the late summer and early fall of 2016, we will roll it out to the Pacific Northwest, which will be the first region, which will be a tri-Service, which will be Lewis-McChord, Bremerton, and Oak Harbor.

And when we roll that out, then we will take a pause after that. So take just about 9 months to a year to go from IOC to FOC. But we will take the lessons learned from that, take a short strategic pause, and then what we have is we have a series of regions. We basically have five regions in 24 waves that we will roll out across the Nation, and it will be about a 6-year rollout plan.

Mr. FRELINGHUYSEN. Whoa.

Ms. GRANGER. And the interoperability with the VA?

General ROBB. Okay. So the interoperability with the VA, again, there are several fronts on that. That is first and foremost on what I will call our objectives. As you know, there was a decision made unilaterally by the VA to pursue the VistA, and then we made a decision to move forward with a commercial off-the-shelf product that we believe will keep pace with the industry.

As you know, 2007 there was only about a 40 percent use of the ER. Now, as of last year, we are up to 78 percent in the commercial sector. So the capabilities of the electronic health records out there, again, that capability and technology has exponentially risen, and

so we believe that is the most cost-effective way for us to move forward and to keep current what we call generation four and generation five.

It is also going to cost us probably around \$3 billion less to go with a commercial off-the-shelf product than it would have been for us to create our own and build our own healthcare record.

Now, the interoperability piece of it, we have been working hard, both the Department of Defense and the VA. You don't need to have the same electronic health record for them to be able to talk back to each other. As you know, the banking industry is a prime example, the travel industry is another, but what they have to agree upon, what they have to agree upon is a common language or a common data set for them to be able to talk back and forth.

I know the Department of Defense is basically on time and on target currently to meet all of those, what we call the ONC meaningful use criteria definitions, and I know the VA is right there with us. And so when it comes time for the two records to talk and we down select ours, I believe that we will be there.

Now, remember also, the Department of Defense has to talk to the VA, but 50 percent of our health care is delivered for our beneficiaries in the civilian healthcare system. And so we are also looking at opportunities for us to talk, again, through meaningful use and for common data elements with the civilian healthcare sector with our new electronic health record.

Mr. FRELINGHUYSEN. Would the gentlewoman yield?

Ms. GRANGER. Yes.

Mr. FRELINGHUYSEN. On our committee, we subscribe to the notion full steam ahead. We don't like to hear about pauses.

General ROBB. Right.

Mr. FRELINGHUYSEN. The committee has been making this investment since I think 2007 or 2008. I think it is, quite honestly, a little bit inexcusable that we are still mucking around here trying to get this right. Chris Miller gave Ranking Member Visclosky and I a very upbeat view of the Department of Defense effort, and I want to give credit to the things that have been done.

But the whole notion that—these words may come back to haunt you here—a virtual wind tunnel, there will be a whirlwind of hurt unless we get some progress here. And we will build into this bill, the same we way we did last year, some sort of language to push this ahead here.

Now, the VA system may be archaic, because they have all these hospitals with whole different legacy systems, but we have a more optimistic view of what you can do, and so we are counting on you. And I think in Ms. Granger's questions, if she will continue to yield, was a more specific question about what this whole thing is going to cost and the timetable. I know you talked about lower costs. Let's talk about what you consider to be the lower costs for the next couple of years.

So is it \$11 billion, \$9 billion, \$13 billion? This committee is interested in how all that money is going to be spent, but we would like to get sort of a general idea of the entire cost of this whole thing. I mean, just for you.

General ROBB. Yes, sir. Yes, sir. The entire cost for the total life cycle, and that is when you hear the \$30 billion number, is through

the entire life cycle that runs through fiscal year 2032, fiscal year 2032. So in other words, that includes the sustainment, that includes the sustainment.

Mr. FRELINGHUYSEN. Well, fiscal year 2032.

General ROBB. 2032. In other words, when you look at the cost of the electronic health record, which includes the interagency cost for both the DoD and the VA.

Mr. FRELINGHUYSEN. On this committee, we are interested in 2017.

General ROBB. Right.

Mr. FRELINGHUYSEN. I thought that was going to be the goalpost here. I am a little bit concerned. Where do we get 2032? We will all be dead and buried.

General ROBB. Well, no. The question was asked what is the total life cycle cost of the electronic health record and that was the number I gave you. In other words, the program sustainment of this acquiring of the new electronic health record is through fiscal year 2032.

Mr. FRELINGHUYSEN. All right.

Ms. McCollum.

SUICIDE AND SEXUAL ASSAULT

Ms. MCCOLLUM. Thank you. Thank you, Mr. Chair.

And thank you all, because we are now going into 2 hours. So thank you. So if you cannot answer my questions and you want to provide more detail, I will take them written later.

I want to touch on two things, one Mr. Ryan started on, but suicide in the force. And we have a lot of troops that are serving on Active Duty and then they return home from deployment to military bases that have a lot of support and a lot of structure built into them. My guardsmen and women and reservists are frequently more isolated. They don't have as regular interaction with peers. We have tried to put a lot of community support organizations in that forward to make that happen.

But, General Horoho, in fiscal year 2016 the budget request has a 37 percent reduction in funding for Army suicide prevention. So similar reductions are proposed for the Army Reserve and Guard. So I would like to know the rationale behind that, if it is accounted for in a different way in the way that you have restructured the program.

The second question that I have relates to sexual assault. My staff had had some meetings, and I guess we are going to be seeing the new training programs that the armed services are moving forward on sexual assault. They are supposed to be much better than the other ones, where we don't blame the victim. But my question is, were you involved either in providing mental health and behavior attitudes towards these training programs? Did they actually talk to people who know about mental health and behavior this time? And so do I have something maybe positive I will be looking at in the near future here?

General HOROHO. Yes, ma'am. So I will take your second question first, if that is okay, and then I will answer your first one.

So in the area of sexual assault, not only has Army Medicine and the healthcare providers been involved with it, but I think more

importantly we have had male and female sexual assault victims that have been intimately involved in helping with developing the training aid. We just had a couple months ago a conference, and we have done these periodically throughout the last couple years, where we have had panels where they have volunteered to come and they have shared their stories. They talked about the importance and how males feel when they are sexually assaulted, because we actually have a higher incident among the male population than we do among the female population, and we have seen a decrease in the female population. So the new videos, I think, are really getting out to the heart and soul so people understand.

Probably the best thing that I could share with you is I just received an email from one of my captains, unsolicited, from the field, who said she was sexually assaulted several years ago, and it was actually from her spouse, and she laid out a horrible story of where the system didn't work. And then her ex-spouse got married again, and she then got called to testify in the court because he abused the current spouse.

She said it was like a completely different system, and she wanted me to understand that. And she laid out and said that she felt like our victim advocates, that the sexual response coordinators, that she is still continuing to get care, and she said it is a 180-degree difference in the entire culture.

So I believe we are making strides, and it has been an Army effort in that area. We have a long way to go, just like the Nation has a long way to go, but I believe we are making strides in that area.

In the area of the reduction in dollars targeted just to suicide prevention, I would put that in the larger framework. We had 230 behavior health programs. We have decreased those programs to 11 evidence-based programs and we have streamlined our process for the Behavior Health Service Line. And then we have a Behavior Health Data Portal that looks at health outcomes and embedded behavior health. So we are rolling out 65 embedded behavior health programs that are in our brigade combat teams.

The reason why I say that is all of that, to include the Performance Triad that is now going to be rolled out Armywide, are all part of the Ready and Resilient Campaign program across the entire Army. So we are seeing where we could reduce in sort of silos that we had out there to better streamline our programs and our initiatives so that we have an Armywide program to really reduce suicides.

Ms. McCOLLUM. So would it be a fair assessment a year from now or 2 or 3 years from now that you cut overhead and unnecessary costs that weren't developing in a way that was direct treatment to the soldier, and you cut overhead and you improved your delivery system?

General HOROHO. We have cut a tremendous amount of overhead, we have streamlined our practices, we have standardized those practices. We now have a Behavior Health Service Line that ensures continuity of capability across the force. And then we also use telebehavior health. And so we do 90 percent of Department of Defense telehealth. So it is all of those coming together.

We have seen a reduction in our suicides, so the trendline has been down. It will never be low enough for us, because losing one soldier is one soldier too many, but I believe part of the direction we are moving is in the right direction.

Ms. MCCOLLUM. Mr. Chair, just a quick follow-up.

So when you say you are seeing a trend in reduced suicides, that is good, but is the trend in, quote, unquote, Active Duty or is the trend in Reserve and Guard?

General HOROHO. So we have been monitoring. So last year our Reserve and National Guard actually had a higher number of suicides than our Active. This year we are seeing a decrease in the Reserve and National Guard and a small bump-up in the Active.

And so, to be honest, when we are looking at our Ready and Resilient Campaign plan and our Performance Triad, we are applying that to the Reserves and the National Guard, and we are also using telebehavior health for the Reserves and the National Guard.

So I think it is going to be a close monitoring when you look at life stressors, when you look at deployments, when you look at past sexual assaults and that of our young servicemembers prior to coming in, those all come out once they are on Active Duty, and all of that has to come together to really focus on their psychological health.

Ms. MCCOLLUM. Thank you, Mr. Chair, and thank you for your indulgence.

Mr. FRELINGHUYSEN. Thank you, Ms. McCollum. Good line of questioning.

Mr. Ryan.

MENTAL HEALTH ISSUES

Mr. RYAN. Thank you, Mr. Chairman.

I want to quickly get back to the mental health baseline. Congressman Glenn Thompson and I, in a bipartisan effort, we have the Military Evaluation Parity bill that we are pushing that has a lot of support from the VFW, National Guard, Military Officers Association, American Psychological Association, to help create more of a baseline. And I just wondered if we could get your help and support on that. If anyone wants to comment on that.

General TRAVIS. Just a comment. I think you have to make sure that the effort is targeted right. We are all short of mental health providers. We strive to keep them, but the demand on the outside for what the whole Nation is short of certainly draws them away from the military sometimes. So the bang for the buck has to be there in what is now already a very short career field. That is what I would say, sir.

Mr. RYAN. So you are saying we don't have the manpower to properly—

General TRAVIS. No, sir. I think we just have to make sure we use it appropriately. For example, the annual face-to-face mental health evaluations may not be able to be done by a mental health professional. And you can do that face-to-face with another provider assuming you target it right. And we are working, all of us are working on meeting the NDAA's requirement for that annual face-to-face mental health assessment. It may not be able to be done by a mental health provider.

So I am just, I guess, generally characterizing what is a very stressed career field already when you think about it, and we are involved in sexual assault prevention, very clearly.

Mr. RYAN. Yeah.

General TRAVIS. We are involved in suicide prevention, very clearly. We are embedding in our operational units where the stresses are high. We have all talked about that. It is making a difference and we are preventing suicides, or everything short of suicide, things like domestic abuse, alcohol or drug abuse. There is a whole spectrum of badness out there short of suicide.

And so our mental health providers are very, very occupied, is what I would tell you. So I think what you are aiming for is very laudable. We just have to make sure it is targeted right. And then it is up to us to execute it. We all want the same thing.

OBESITY

Mr. RYAN. Thank you. That is helpful.

General HOROHO, did I hear you say 70 percent of the healthcare costs are obesity related?

General HOROHO. Seventy percent of the demand on the healthcare system are related to diseases that have a relationship to obesity.

Mr. RYAN. Right. Okay. That is a stunning number. But I know in one aspect with Ms. Kaptur's question when you talked about some of the alternative approaches for mental health promotion with the mindfulness and the yoga and the different approaches, I think to me that is the future of health care, that is how we save money, that is how we keep people healthy early on, prevention, so on, so forth.

Talk to me about nutrition, because this to me seems like a very straight shot. If 70 percent of the costs are coming from obesity, to me that is diet and nutrition. We don't need to get into pharmaceuticals, the costs of type 2 diabetes drives this cost up tremendously for us. And I think we are in a scenario here where I think we can play some offense. I know there is a Healthy Base Initiative, and we are working with Senator Mikulski a lot on that. I know she has been spearheading that.

So what more can we do from a nutrition standpoint? I have walked onto a battleship and I went into where they eat lunch, and it is not good food that was—not healthy food, anyway—that was sitting there. So help.

General HOROHO. So I think the cultural mindset is that looking at food as medicine.

Mr. RYAN. Yeah.

General HOROHO. And really looking at how do we improve health literacy. Because I believe if people understand the why, they will make better choices. And we are not at all talking diets, nor have we talked diets in the last 3½ years, but it is really providing your own personal health data and information, and then providing the right structure and environment to be able to do that.

So the nutrition is a key component of our Performance Triad, which focuses on sleep, activity, nutrition. And nutrition also fo-

cuses on tobacco cessation. So it is really anything you put in your mouth, if you think of the nutritional aspect.

Across our facilities we have labeled food now of high performance, low performance, and moderate performance, so that they understand the impact of what they are about to eat on their overall performance and health. We have reconfigured some of our dining facilities, and what we found is that if you move your dessert bar from being the first thing that you see walking in and you put a salad bar there and you put the dessert bar in the back, we have seen actually a 50 percent reduction on the purchasing of desserts and a 36 percent increase on the purchasing of salads and other healthy nutrition.

Fort Campbell is a great example where they brought in the young children and they have a health garden, and so the Girl Scouts actually grow vegetables in that, and they do it from an education. And then they have taken sodas out of their dining facility. And just in a short amount of time they actually decreased 6,000 pounds of sugar being consumed in a very short amount of time, but they replaced it with different healthy waters.

And so I think when we look at this, a couple things, I think, from a Nation, we need to look at what we are providing in our school system. I think from a military perspective we need to look at how do we have better partnerships with the fast food industry so that if you buy something that is healthy it is at the same cost as something that was unhealthy and we make it easier for our servicemembers to be able to make those types of decisions.

Mr. RYAN. Mr. Chairman, I think this is a significant opportunity for us.

Mr. FRELINGHUYSEN. You took a dig at Navy chow.

Mr. RYAN. Well, you know—

Mr. FRELINGHUYSEN. Admiral was sucking it in there for a few minutes.

Admiral NATHAN. I have got to, Mr. Ryan—

Mr. FRELINGHUYSEN. No equal time here, I guess.

Admiral NATHAN. Well, Mr. Ryan, first of all, if you go to a warship or a Navy ship, you can get a burger there. Guilty as charged. But that said, I think you would be impressed with the initiatives that Secretary Mabus has made with the 21st Century Sailor and Marine. All of our ships now have a healthy choice alternative, especially the larger ships, the aircraft carriers where food is calibrated. We have turned the serving spoon around, meaning we serve you instead of you just get to take whatever you want. So there is portion control, which is huge.

And, again, this is somewhat of a third rail subject, but the Secretary is very invested in trying to do tobacco cessation across the Navy. And this is something that I think, I am sad to say it probably won't come in my time, but I hope it will come in my successor's time. Because I think if we are going to address the total health picture of the young person today in the military it has to be the nutrition, as you said, it has to be the mindfulness, it has to be the portion control, and it has to be the tobacco cessation.

Mr. RYAN. Mr. Chairman, this is an opportunity for us. We sometimes think we want to talk about compounding pharmaceuticals and all. It is about food. It is about some of the basic stuff.

So I am thrilled that you are into it, and look forward to working with you. And that group of people that still go to the dessert no matter where you put it, Mr. Visclosky falls into that category. I just want all of you to know that.

Mr. FRELINGHUYSEN. Yeah. This is on the record, and God only knows you have done irreparable damage to Mr. Visclosky's reputation.

Mr. VISCLOSKY. It is true.

Mr. FRELINGHUYSEN. Thank you, Mr. Ryan. You got your time. You reclaimed some good time, though, didn't you?

Mr. RYAN. Thank you.

Mr. FRELINGHUYSEN. Mr. Ruppertsberger, Ms. Kaptur, any additional comments?

Mr. RUPPERSBERGER. Yes.

Mr. FRELINGHUYSEN. Mr. Ruppertsberger.

RESEARCH FUNDING

Mr. RUPPERSBERGER. Quickly. Interesting conversation about food. I do enjoy food. And I think one of the things that you are talking about, the serving someone, because buffets are very dangerous. And I think that really makes a difference. So, Tim, I am glad you raised the issue and I think it is important.

I want to get into something Steve Womack talked about, and that is dealing with our men and women coming back who have had severe injuries. I was involved at Maryland Shock Trauma with a face transplant, which took about 10 or 12 years to develop. The people who have to wear masks, because when they come back, they are embarrassed, their faces are blown off. The issues with hand surgeons, losing legs, paraplegics.

I want to talk to you about the issue of the Peer-Reviewed Orthopedic Research Program. Now, I strongly support the U.S. Army Medical Research and Materiel Command Combat Casualty Care Research Program—did you get that, what that is, okay—to advance cutting-edge battlefield care that has truly saved lives and helped our military coming back home.

I am particularly impressed by the clinical trials and research data coordination being conducted by a consortium of clinical centers that are studying major extremity trauma for the Peer-Reviewed Orthopedic Research Program. And it is my understanding that the program itself, the Orthopedic Research Program, and cooperative agreements for this consortium, which were originally funded in 2009—and I worked in 2009 with then at that point Jack Murtha, who is no longer with us, and he was very involved and active in that plan, and there were a group of us that worked on it—but I understand that the money is running out for that plan.

And it is so important, because we have so many of our military who have lived because of the protection of the vest, but their extremities have been really damaged or they have lost their extremities. And I am really concerned about this program that has so much potential in the future to help our men and women that come back.

And we know we owe them to come back that do not come back whole and how we deal with them and work with them on prosthetics. I remember an issue involving at one time you could only

use a hook, and now you can literally start, because of programs such as this, you can literally use fingers to do that. And these are the type of things that we must continue to do.

This also helps the private sector too and the partnership between the private. I keep referring to Maryland Shock Trauma, but I know the Air Force especially working in these programs on research together.

So I have two questions. Please describe for the committee the importance of the role these consortiums play in the medical research field. And secondly, would you support additional funding to the Peer-Reviewed Orthopedic Research Program in order to ensure that this consortium continues and we can help our men and women from the military? Because I understand the money, again, is running out from the original 2009.

Admiral NATHAN. Yes, sir. Consortiums are a truly valuable bang for buck. You are correct in that many of these research partnerships are not only from the organic funding this committee so generously provides, but also from grant money that comes from reimbursables from private institutions.

When the economy is up, as would be the case for the Mayo Clinic, grant money is up. When the economy is down, as would be the case for them and for us, reimbursable research funds are down. You have heard the unified chant from all of us that we need to maintain an organic critical mass of research funding stream to keep this going. The AFIRM study, which we mentioned before, is an example of that. All of us have various partnerships that extend all the way from southern California with UCLA in TBI, to the McGowan Institute, to the NICoE facilities.

And then, of course, the dramatic signature injury of this war, which is extremity loss, and how are we going to approach that not only from a mental and spiritual fortification standpoint, but from getting you back to normal, ideally with prosthetics, moving to transplants, moving to ultimately at some point regeneration. That time will come as we get into spinal cord research and other things.

So this is very valuable and this has been sent out before. In many areas the military gets their expertise in standard injuries and illnesses from the private sector, diabetes, things like that. We contribute, but the largesse of it comes from that. And as a whole, our society gets the largesse of its trauma capability and rehabilitation from the military.

Mr. RUPPERSBERGER. It is my understanding Kennedy Krieger, who does a lot of spinal cord research, is working closely, and they feel that if the funding continues, there could be a possibility in 10 to 12 years to start getting these people who are paralyzed from military injuries or any injuries out of their wheelchairs and the ability to walk. But unfortunately that money is slowing down.

So I guess your answer to my question, because I know we are getting late here, is you are clearly in favor of continuing the funding in the Peer-Reviewed Orthopedic Research Program.

Admiral NATHAN. Absolutely, yes.

Mr. RUPPERSBERGER. For spinal cord, joints, whatever that may be.

Admiral NATHAN. Absolutely.

Mr. FRELINGHUYSEN. Let me assure the gentleman, if he will yield, that there is a keen interest in the congressionally directed funding. I think there is some concern as to whether the new Defense Health Agency, I won't say the chain of command, because you represent the top of the heap in some regards, want to make sure that we continue that funding stream for these very important investments and not get choked down by too much extra bureaucracy. So I could assure you we will be addressing this issue and other congressional adds as appropriate.

Ms. Kaptur.

PHARMACEUTICAL COSTS

Ms. KAPTUR. Yes. Thank you, Mr. Chairman.

Very quickly, I am going to tick off several items. General Horoho, thank you again for your service and for including a title in your testimony, transitioning from a healthcare system to a system for health. I like the way the discussion is going. I have had that very same discussion with the VA, and believe I represent the first VA clinic in the country, which we call a VA center, which is turning the old concept of sickness to wellness. And so we thank you for that very, very important perspective.

I wanted to also ask Admiral Nathan, could you repeat the number that you gave in my prior question on the cost of pharmaceuticals, what the projected amount is over what period of time, please?

Admiral NATHAN. Yes, ma'am. I am happy to. And this is usually where the public affairs officer comes after me and says, "What the admiral meant to say was." But the figure that we are quoted off-hand for the FYDP, the FYDP, over the next 5 years is \$40 billion.

Ms. KAPTUR. Over the next 5 years?

Admiral NATHAN. Five years, \$40 billion.

Ms. KAPTUR. I hope the American people are hearing that during this hearing.

Admiral NATHAN. Now, this is all comers in the MHS. This is prescriptions that are provided within our lifelines and the direct care system, as well as the prescriptions that people pick up in purchased care in pharmacies.

Mr. FRELINGHUYSEN. If the gentlelady will yield. This is to address the needs of an estimated 9.2 million beneficiaries that are in this system?

Admiral NATHAN. Yes, sir.

Mr. FRELINGHUYSEN. Families too?

Admiral NATHAN. Yes, sir, families too.

Mr. FRELINGHUYSEN. Thank you. Thank you for the time.

Ms. KAPTUR. I want to note that in the civilian sector, as well as this one obviously, the cost of pharmaceuticals is off the charts. I cannot believe what my constituents are dealing with, as well as the military, and it is beyond reason and many people simply can't afford it. So it is impacting this budget as well, and I just want to make a point of it.

NEUROPSYCHIATRIC CONDITIONS

I wanted to also ask, General Horoho, we talked a lot about neuropsychiatric conditions. And I support all of the supportive

services that you are providing to your soldiers in the Regular Force and in the Guard. Can you provide for the record a listing—and maybe all the departments—of your in-patient and outpatient services in a year, what percent would fall into the category of, however you describe it, behavioral health, I call it neuropsychiatric care, what percentage of in-patient and outpatient visits every year relate to that?

And then subdivisions of that. I distinguish in my mind between TBI and between someone who has a very serious bipolar condition. But I am interested in how you would classify it.

General HOROHO. Yes, ma'am. So when we look at our TBI and behavior health, we have actually made a move over the last 4 years to put those services together, because we believe it is very hard to tease out one from the other. And so what we are finding in our Intrepid Centers is that by having those two together along with neurocognitive behavior therapy, and then the other alternative therapies together, we are actually seeing very good success rate.

And we have done that on the battlefield in Afghanistan as well. We used to have them separate, and we put those together. And when we put those together and followed our protocols, Army, Navy, and Air Force, we actually had a 97 percent return-to-duty rate for those that had exposures to concussions.

And then we have seen a decrease with behavioral health, because instead of waiting for our soldiers to come back, we were actually treating them in theater and at the point when something happened. So we are trying to be much more aggressive in treating stressors in life, and then also the whole array of behavioral health diagnoses that are there.

Ms. KAPTUR. Well, I would be real interested in the classification of how you would term these conditions.

General HOROHO. Okay. We will be—

Ms. KAPTUR. And then what is second, third, fourth on the list for each of your departments. That would be very, very interesting.

General HOROHO. We will be glad to.

[The information follows:]

In calendar year 2014, the total number of Army outpatient visits within the direct care system was 17,905,864. Of that, traumatic brain injury accounted for 0.36% and behavioral health accounted for 12% of the overall direct care visits. The top five diagnoses seen within the direct care behavioral health outpatient setting were anxiety disorders, including PTSD (20%), adjustment disorders (14%), mood disorders (13%), attention-deficit disorders (6%), and alcohol-related disorders (4%).

The total number of the Army inpatient admissions was 132,890 within the direct care system. Of that, traumatic brain injury accounted for less than 0.2% and behavioral health accounted for 5.5% of inpatient admissions. The top five inpatient BH diagnoses were adjustment disorders (33%), mood disorders (22%), alcohol-related disorders (15%), anxiety disorders, including PTSD (11%), and substance related disorders (5%).

HUMAN PERFORMANCE

Ms. KAPTUR. I wanted to also ask General Travis, in the area of human performance, could you elaborate a bit on the concept of human performance and the link of technologies used in missions performed by airmen and what actions you have taken to create the shift in focus to human performance? What are you finding?

General TRAVIS. I will keep this brief, and that is hard, because this is something that is a passion I think with me, and certainly those that I work with now. And it applies across the Services, I believe, and we have all kind of acknowledged this today and in our previous discussions.

But in particular, RP operators, remotely piloted vehicles, who now we are projecting air power from thousands of miles away, and you will have young airmen who are sitting in a dark room with a bright screen with a top secret security clearance who are, no kidding, watching people who do us harm or our allies harm and making decisions or communicating information to commanders in the field to make decisions that is part of the kill chain.

And so these airmen—and 90 percent of them are very young airmen—are wonderfully skilled, very talented, but they step out of that battle space and they are in battle in places like Nevada or New Mexico or you name it, Virginia, California. And many, frankly, now, Reserve and Guard units are doing the same thing.

We felt compelled by the need to support these airmen the way they project air power now. And I only named those two career fields. We are looking really across the spectrum of how we present air power these days. We now have embedded not just mental health providers and a technician who have top secret security clearances, but also perhaps a family practice doc, flight doc, and a medical tech also with a security clearance. The line actually paid for these positions, paid for their clearances.

I might also add in two of our intel groups that I visited, the mental health providers also have a therapy dog. And they have space on the floor, they have the right clearance, they are right there with those airmen who now understand that is their doc. And you talk about a way to break down stigma, they don't have to go to a clinic and say, hey, I am having trouble. They don't do that. They actually know their doc, they actually may talk to them during their break, their mandatory break from their shift. And then if they really do need intervention other than just the little talk they might have there, you know, they will make an appointment with them the next day to their doc—it might be 5 in the morning—and they will get the help they need.

By the way, the chief, the command chief that works in one of these wings told me that in the past year we prevented two suicides in her unit. That tells me we also then prevented or mitigated a lot of other bad behavior that I alluded to earlier, you know, drug abuse, alcohol abuse, just on wellness, frankly, in a very high stress career field that now really is how we do war. It is not like it used to be.

Ms. KAPTUR. One of the interesting findings that we had in the Ohio Guard study was that because we do not have a draft and people voluntarily enlist, that it actually was shocking to me the number of people coming into the military who have had violent experiences in their own life, multiple times, and how this impacts behavior inside the military. That is a change. That is a generational change. So I just wanted to put that on the record.

And finally, Mr. Chairman, take 5 seconds to say I was going to ask the departmental health service group to let me know what you pay every year for Heparin per bag and Depakote and

Lamictal, brand name medications used in neuropsychiatric care. I would like to know what we are paying for those. They are critical to many patients, and I am just curious what the per unit charge is.

Mr. FRELINGHUYSEN. If you can provide that for the record. [The information follows:]

Average Unit cost for current period:

Heparin pre-mixed bags—\$2.17–\$4.04 per bag depending on size and concentration;

Depakote—\$0.07–\$1.62 per tablet depending on strength and whether short or extended release;

Lamictal—\$0.03–\$1.57 depending on strength for short release; \$1.69–10.84 for extended release. Based on purchase of generic products.

MILITARY COMPENSATION AND RETIREMENT MODERNIZATION COMMISSION

Mr. FRELINGHUYSEN. Thank you, Ms. Kaptur.

In closing, we haven't alluded to it, in January the Military Compensation and Retirement Modernization Commission released their recommendations. I assume you are intimately familiar with some of those recommendations. And I guess this is directed towards the Surgeons General who are here. And you have had remarkable careers and dedication and done some incredible things on behalf of our soldiers and sailors and airmen.

One of those recommendations is the Joint Readiness Command billet. I know that you have a chain of command, but since you have done some incredible things for our Nation, what is your view of that recommendation? What are you at liberty to say relative to that recommendation from this rather distinguished group?

Admiral NATHAN. Sir, I think we are certainly at liberty to say that we are aligned with readiness and the documentation of it, the demonstration of it, and the accountability of it that the Commission is after. The Commission wants to, I think, based on our interactions with them, make sure that we are as ready tomorrow as we have been today.

Their mechanism for doing so has some advantages and some disadvantages. All those are being brokered, and this is where I retreat to my fairly politically neutral statement, but all those pros and cons are being brokered, as we said, from our inputs, our Service chiefs' inputs, up to SecDef, who will give his recommendation to the President and then to Congress.

The one thing we have told the Commission that is on the record is that they have our full attention—they already had our full attention when they talk about readiness. You have heard about the interactions we have at shock trauma. The Navy is fully engaged at LA County. The Army is in Tampa, Florida. And we are, as we speak, we are growing our network of interactions with the civilian subject matter experts and robust trauma facilities to make sure that we maintain a corporate expertise in readiness for combat casualty care.

We have to be as ready for the mom walking across the doorstep to deliver a baby in Virginia as we do for the soldier who was felled by an IED in Afghanistan or the Ukraine or somewhere else.

And so this is job number one to us. So the specifics of whether we need a readiness command to do that or a readiness billet to

do that will be up to our immediate superiors in charge. But we certainly commend the committee for their attention to making sure that the military understands this readiness of the future.

Mr. FRELINGHUYSEN. Well, you have been remarkable stewards of all those who serve our Nation in uniform, all those who volunteer. And your concerns and your voice and your opinions matter. I want you to know that the committee feels very strongly that your opinions do matter. And I hope that this isn't the last of your offering your good opinions and professional judgments into the process.

Anything further, Mr. Visclosky, before we conclude?

Mr. VISCLOSKY. Mr. Chairman, only to say that I was justly admonished by our colleague from Ohio. I did go to Zel's yesterday in northwest Indiana and have a chili cheese dog and fries to go. And I still am filled with self-loathing, but it was good. So I am going to try to do better today. Thank you, Mr. Chairman.

And thank all of you.

Mr. FRELINGHUYSEN. On that high note, we thank all of our distinguished presenters today. Thank you very much. We stand adjourned.

[CLERK'S NOTE.—Questions submitted by Mr. Calvert and the answers thereto follow:]

DoD NEWBORN SCREENING

Question. Does the Defense Department have a newborn screening program in place?

Answer. Every MTF delivering babies does newborn screening laboratory testing for each infant but there is not a Department-wide comprehensive newborn metabolic screening program in place. The Department has a centralized laboratory contract available for military treatment facilities to centralize testing with a standardized panel of tests. Providers receive the results of the screening from the testing laboratory and initiate any followup that is needed for the infants using MTF or purchased care resources.

Question. How are patients with abnormal screens followed-up?

Answer. The initial blood spot testing for Newborn metabolic disorders is a screening test not a diagnostic test. Out of range testing for disorders screened often require confirmatory testing to verify the diagnosis or condition. The centralized lab contract includes some confirmatory testing for specific disorders; if other confirmatory testing is needed, it can be added to the screen. Providers order confirmatory tests as recommended by the American College of Medical Genetics, initiating any additional followup that is needed for the infants using MTF or purchased care resources. If MTFs currently utilize state Newborn screening programs, confirmatory testing and followup is often provided through the state program.

Question. Does the DoD have the resources to provide followup and care for these complex patients? If not, what would it take to have a followup program for newborns in the U.S. and outside the U.S. established? Can telemedicine be used to do this?

Answer. The Department does have the resources to provide followup and care for complex patients through the network of military providers and civilian providers in the TRICARE network to address needs of and follow the complexities of these infants. TRICARE provides care for eligible beneficiaries with disorders diagnosed on newborn screening (metabolic disorder, sickle cell) over their life through their TRICARE benefit. The resources of the state metabolic programs may be used as an additional resource for these newborns. OCONUS infants receive newborn metabolic screening and processing of the lab from a CONUS lab. If the OCONUS infant has the need for additional medical follow up not available OCONUS, the beneficiary can be flown back to CONUS for followup as needed. Telemedicine continues to be used by the Genetic/Metabolic community for consultations with providers related to Newborn metabolic screening.

Question. What do you see are the benefits of having a follow up program and/or would a partnership with an existing program make more sense?

Answer. The Department is recommending that MTFs use state laboratories and programs for processing Newborn metabolic screens to provide a single source for testing and followup by May 2016. The process of using state resources leverages the established state programs that provide early detection of diseases, confirmatory testing, diagnosis and intervention through established programs. Support provided through State Newborn Screening programs are inclusive of referral systems, counseling and family support. OCONUS newborn screening samples would also be processed by state programs through establishment of a contract and decisions for medical/genetic followup would be made with the local ordering provider under the guidance of that state program. Ideal comprehensive Newborn screening programs bring together resources to: provide blood spot screening, and confirmatory testing, clinicians with expertise in the screened disorders to guide initial management and support staff to track cases and insure providers and families involved receive appropriate testing, followup and management. Telemedicine would be an integral part of such a program, particularly for OCONUS MTFs.

DoD CLINICAL AND RESEARCH NEEDS

Question. What are the current clinical and research needs in genetics for DoD?

Answer. Currently, the current majority of DoD genetics research is funded through several Congressional special interest (CSI) appropriations and guided by Congressional report or bill language. CSI areas of research and guidance are determined by the members of Congress and the Defense Appropriation Subcommittees and therefore are not determined by any specific "need" within the DoD for genetics research.

Additionally, the DoD currently has no core program Research, Development, Test and Evaluation (RDTE) investment in genetics for commonly occurring diseases. The President's Budget request for military medical RDTE is focused on threats to which our service members are exposed from accession and through training, deployment, treatment, evacuation and rehabilitation.

Question. How much do DoD medical programs spend on clinical and research programs for genetics and rare diseases?

Answer. The core military medical research programs in the President's Budget request are focused on threats to the Warfighters and do not have a requirement for investment in genetics and rare diseases.

However, over the course of the Congressionally Directed Medical Research Programs' (CDMRP) existence, from FY 1993 to FY 2013, CDMRP has funded 1477 awards for a total of \$685M in genetics research. Currently CDMRP has 221 open awards for a total of \$202M in genetics research. CDMRP also supports several rare disease research programs in addition to rare disease topics by its other research programs. The total investment and number of awards (open and completed) in rare diseases is as follows*:

Amyotrophic Lateral Sclerosis research program—\$34M for 30 awards
 Duchenne Muscular Dystrophy research program—\$8.7M for 11 awards
 Neurofibromatosis research program—\$221M for 313 awards
 Tuberous Sclerosis Complex research program—\$40M for 107 awards
 Bone Marrow Failure research program**—\$17M for 46 awards

Rare Disease Topics

Dystonia—\$2.9M for 6 awards
 Fragile X syndrome—\$10M for 15 awards
 Hereditary angioedema—\$2.4M for 2 awards
 Lupus—\$23.5M for 25 awards
 Pancreatitis—\$7.5M for 9 awards
 Polycystic kidney disease—\$6.3M for 11 awards
 Scleroderma—\$15.2M for 20 awards

*Some awards for rare diseases may overlap with awards in genetic research.

**Many of the Bone Marrow syndromes are considered rare diseases, e.g., Fanconi anemia, Severe Congenital Neutropenia, Shwachman-Diamond Syndrome

Question. What do you see are the benefits of a robust clinical and research program for genetics and are you aware of that Children's National Medical Center (CNMC) has a robust clinic and research genetics program and works actively with the U.S. military?

Answer. A robust clinical and research program for genetics of commonly occurring diseases should benefit the general population and likewise, medical research discoveries from such a program should also be applicable to health care beneficiaries of the DoD as a subset of the general population.

DoD is aware of CNMC's clinical and genetics research program. The DoD currently is funding 10 awards (valued at a total of \$15M) at the CNMC through the Congressionally Directed Medical Research Programs. Three of the current CNMC awards involve genetic research. One of the awards is in the area of prostate cancer using genetic screening to identify prostate cancer progression genes and two awards are in the area of Duchenne Muscular Dystrophy studying exon skipping.

The DoD has a robust clinical genetics testing laboratory located at Keesler Air Force Base Mississippi. The lab currently performs twenty genetic tests and has the capability to receive samples from MTFs in CONUS and OCONUS.

Question. What would it take to build a partnership with CNMC to house a genetics program at the new building they have acquired from DoD at the former Walter Reed medical facility in order to Leverage some of their ongoing DoD related medical research in genetics?

Answer. CNMC has received ten awards for approximately \$15M through Congressional Special Interest funded programs. CNMC is eligible to increase their DoD research awards by competing for the annually appropriated genetics relevant CSI funds. For a different type of collaboration to occur, congressional special interest program re-structuring or appropriation topics may be necessary.

TESTING SERVICES OF ANTIGEN AND ANTIBODIES TO HUMAN IMMUNODEFICIENCY VIRUSES

Question. The Committee is interested in understanding a proposed change from contractor service verse in-house testing services of antigen and antibodies to Human Immunodeficiency Viruses (HIV). Please provide information on the following:

The "Phased Plan" that identifies cost associated with acquiring a facility, equipment, and supplies for the in-house lab. Please identify the program element and budget line number where this initiative is identified.

Answer. The funding for the Army HIV testing program is located within Program Element 847700, OP-32 Line: 955. The Army HIV testing program doesn't have a specific line item, and is incorporated within the total appropriated request. The Army plans to use the HIV Diagnostics & Reference Laboratory at the Walter Reed Army Institute of Research to perform its HIV testing. There are no current changes to the Navy and Air Force testing programs. The Navy uses a contract for HIV testing and has no announced plans to change. The Air Force does its own testing at Wright-Patterson AFB.

Question. Are the anticipated cost savings identified in the Program Objective Memorandum (POM)?

Answer. No. However, potential savings will be taken into account in future budget submissions.

Question. Will the in-house facility operate with government personnel and equipment or contractor?

Answer. The current plan is to utilize government provided equipment and government provided facilities operated by a mixture of Government and contract personnel.

Question. We understand that the government requirement is for one primary and two contingency testing sites. Where are the contingency testing sites?

Answer. The current Army HIV testing contract, W81K04-15-D-0006, includes a requirement within paragraph 1.2.3 for contingency sites. Any future changes will include provisions for contingency operations as part of the Continuity of Operations Plans. In addition, the DoD commercial reference lab contract provides backup HIV testing for all three services.

Question. We understand that the current contractor is one of only two labs capable of handling the size and complexity of the government requirement for HIV testing. What will be the impact to military readiness and the program if you eliminate the current contractor?

Answer. As the government transitions services there will be no negative impact to military readiness of the force or the program. We anticipate multiple benefits to the Army and significant reduction over current costs.

The committee is most concerned with the health and safety of our armed forces and takes seriously efforts to disrupt functional operations for untested/potentially dysfunctional operations. On the other hand, we support organizational efforts to reduce their budgets where there can be cost savings. The Committee will monitor this initiative closely.

Question. Is this anticipated move to a government in-house operation in the best interest of the government and industry?

Answer. Yes, the transition is in the best interest of the Government. We anticipate multiple program benefits and meaningful cost savings. This transition will improve the health and safety of our Soldiers through the ability to conduct real time data analysis and review for laboratory, Public Health surveillance and Quality Assurance. There will be quicker definitive results for Soldiers as screening and confirmatory testing will be performed in one location. Additionally, the ability to rapidly modify/alter testing algorithms or scope of testing requirements will be enhanced.

Also, it should be noted that HDRL is a proven HIV testing lab as they have served as the DOD/DA HIV Reference Laboratory since 1987 performing OCONUS Army HIV screening, HIV confirmatory testing, and HIV resistance genotyping for all DOD HIV infected Soldiers and beneficiaries.

[CLERK'S NOTE.—End of questions submitted by Mr. Calvert. Questions submitted by Mr. Aderholt and the answers thereto follow:]

TRICARE FOR LIFE

Question. Have you looked at the impact that the new annual fee for Tricare for Life could have on the quality of life of retirees who had not planned to be required to pay healthcare expenses after serving their country honorably?

Answer. The proposal for TFL does take into account the fact that retirees may not have planned to pay for health care expenses in three ways. First, those already on TFL as of January 1, 2016 will be grandfathered and will not have an enrollment fee. Second, for those enrolling in TFL after that date, the fee is ramped over a four year period allowing for planning for this expense. Third, the enrollment fee is tied to their annual retirement pay, so that those having a small retirement pay less than those who receive greater compensation. In CY 2019, the enrollment fee will be 1% of retirement pay with a cap of \$150 per year per TFL beneficiary. Comparable "Medigap" policies carried premiums of \$2,200 per individual in 2010.

DUCHENNE MUSCULAR DYSTROPHY

Question. Last year, enacted funding for Duchenne Muscular Dystrophy was \$3.8 million. What benefit could come from increased funding in research for Duchenne Muscular Dystrophy?

Answer. Increased national level funding to support therapy development is a critical need for Duchenne Muscular Dystrophy (DMD) which is a disease that drastically decreases the quality of life and the life span of those affected. Clinically there is a need to optimize available therapies such as the use of corticosteroids in treating DMD and determining its mechanism of action in order to develop new, potentially more efficacious agents. DMD is a multi-faceted disease (skeletal muscle, central nervous system, heart, bone, respiration, psychosocial, rehabilitation, etc.) thus, emerging treatments that address the molecular defect in DMD have the potential to change manifestations of this multi-system disease at multiple levels and will have to be understood and subsequently accounted for in care guidelines.

There are significant cardiopulmonary consequences associated with DMD that need to be addressed by establishing evidence for use of FDA-approved agents and advancing new and more targeted therapies to treat cardiac and respiratory systems. Finally, there is a significant need to improve clinical care and quality of life in the near term for DMD patients by supporting clinical studies and novel interventions that address such areas as: cognitive function, endocrine and bone issues, gastrointestinal issues and co-morbidity studies.

NUTRITIONAL SUPPLEMENTS—KETONES

Question. What is the Defense Health Program's current and future emphasis on researching the numerous potential benefits of adding ketones to diets, for optimizing physical performance and military readiness by helping Service Members maintain optimal body fat and weight standards?

Answer. There is currently no ongoing research to understand the efficacy of ketones, specifically, within the Military Operational Medicine research portfolio pertaining to physical performance and weight maintenance. There are, however, active research portfolios in dietary supplements and nutritional strategies that may promote recovery from injury, improve mental and physical performance, and improve adherence to healthy weight standards.

Question. What specific technologies are being researched/developed by the DoD that would leverage the numerous potential benefits of adding ketones to diets for optimizing physical performance and military readiness?

Answer. There is currently no ongoing research to understand the efficacy of ketones within the Military Operational Medicine research portfolio pertaining to physical performance.

PROSTATE CANCER RESEARCH

Question. Please provide a list of major accomplishments of the prostate cancer research program with the DHP.

Answer. Some of the PCRP successes are:

- Established the PC Clinical Trials Consortium (PCCTC) to support the collaborations and resources necessary to rapidly execute Phase II or Phase I/II clinical trials of therapeutic agents or approaches for the management or treatment of prostate cancer. As of 2014, the PCCTC accrued over 4,400 PC patients to more than 108 phase I/II clinical trials studying more than 50 drugs. The PCCTC rapidly advanced 8 therapeutic candidates to phase-III clinical testing, including 2 FDA approved drugs, Zytiga_R and Xtandi_R, which have become standard of care for the treatment of advanced Prostate Cancer.
- Developed the Elekta Synergy system, a cone-beam computed tomography with a flat-panel imager that has revolutionized image-guided radiotherapy. The system was FDA-cleared in 2003 and is now used to treat prostate and other cancers in over 3,500 U.S. hospitals.
- Developed a blood-based assay that measures levels of a variant androgen receptor associated with poor treatment outcome, which was been licensed to Tokai Pharma.
- Showed that most prostate cancers are dependent on extracellular arginine, and that treatment with an enzyme that degrades arginine causes prostate cancer cells to die as a result of metabolic stress.
- Developed a laparoscopic laser nerve imaging probe that can identify cavernous nerves during prostate cancer surgery and preserve both urinary and sexual function.
- Demonstrated the feasibility of using molecular profiling of circulating tumor cells isolated from patient blood for sampling tumor tissue and identifying patients most likely to benefit from specific treatments.
- Found that African American men with metastatic prostate cancer were more likely to receive radiation therapy and develop spinal cord compressions than Caucasian men. Also observed that, of men who developed ureteral obstructions, African American men were more likely to undergo a nephrostomy.
- Demonstrated that blocking the activity of RANKL slows the progression of prostate cancer growth in bone. The monoclonal antibody against RANKL, denosumab, received FDA approval in 2010 as XGEVA and becomes the standard of care for the treatment of bone-related events in advanced prostate cancer.

Question. How does the Prostate Cancer Research Program coordinate with the NIH? In particular, do the National Cancer Institute (NCI) and the DoD have any formal coordinating bodies working in prostate cancer?

Answer. The Congressionally Directed Medical Research Programs (CDMRP) involves members of the National Cancer Institute and other federal entities in its medical research planning processes and review panels.

CDMRP participates in the Interagency Urology Coordinating Committee which is a federal advisory committee, facilitated by the National Institute of Diabetes and Digestive and Kidney Disorders of the Department of Health and Human Services, that coordinates the research activities of all national research institutes relating to urologic diseases to ensure their adequacy and technical soundness, and to provide for the exchange of information necessary to maintain adequate coordination.

TRAUMA

Question. Please describe what the Department's trauma research requirements are, and how can we continue to advance in the field of trauma as our deployments decrease?

Answer. As the DoD Combat Casualty Care Research Program (CCCRP) garners lessons from the recent wars it is also leaning forward to push innovation for future and more complex operational and casualty care scenarios. As part of this effort, the DoD research program is endeavoring to reevaluate the traditional "Golden Hour" in which lives can be saved. Because current and future casualty care scenarios may involve prolonged field care, long-distance enroute care (sea, land and/or air), the future "Golden Hour" needs to be based on delivering lifesaving and resuscitative

capability to injured service personnel regardless of where they are located or the presence of pre-positioned echelons of care (i.e. traditional deployed military hospitals may not be available).

To sustain momentum and enhance this reappraised “Golden Hour” capability, the DoD CCCRP—as part of its larger research effort—is planning to initiate a Civilian, Multi-Center Clinical Research Network in which military-relevant trauma topics can be studied. Partnering with civilian trauma systems and centers in such a manner is now more important than ever as there are fewer injured service personnel being cared for in Iraq or Afghanistan.

To spur this effort and leverage civilian expertise and capacity, the DoD CCCRP has issued a Request for Information on the topic of a Civilian, Multi-Center Clinical Research Network. After open competition and external review, the program plans to fund the best or strongest of the responses from academia (trauma systems and centers) and industry with dollars from its FY16 budget.

Importantly, this model of DoD-led trauma research accomplished in civilian trauma centers and systems is programmed to be maximally efficient. Specifically, this model assures that military-relevant trauma research topics and gaps are addressed to reduce morbidity and mortality from combat injury. Having the research performed in civilian systems and networks assures maximal translation of the knowledge and advances to the public and civilian medicine.

Question. There are several public private programs the USAF supports such as C-STARs to provide critical training for our medical forces, please relay how the same could be done for trauma research?

Answer. Research and development is somewhat different than developing a training site for military personnel. The DoD efforts for research and development are focused on researching, developing, finding and procuring battlefield medical solutions. The DoD has had great success with a consortia and partnering model for advancing and accelerating research and development. The Combat Casualty Care Research Program (CCCRP) recently released a Request for Information pertaining to developing a Multi-Center Clinical Research Network to seek input and ideas from interested institutions. Partnering with civilian trauma systems and centers in such a manner is now more important to maintain our medical forces capabilities since there are fewer injured service personnel being cared for in Iraq or Afghanistan.

As part of this effort, the DoD research program is endeavoring to reevaluate the traditional “Golden Hour” in which lives can be saved. Because current and future casualty care scenarios may involve prolonged field care, long-distance en-route care (sea, land and/or air), the future “Golden Hour” needs to be based on delivering life-saving and resuscitative capability to injured service personnel regardless of where they are located or the presence of pre-positioned echelons of care (i.e. traditional deployed military hospitals may not be available).

To sustain this capability in the out years, the Civilian, Multi-Center Clinical Research Network will be planned, programed and budgeted as part of the CCCRP’s Program Objective Memorandum submission for Defense Health Program money.

Importantly, this model of DoD-led trauma research accomplished in civilian trauma centers and systems is programmed to be maximally efficient. Specifically, this model assures that military-relevant trauma research topics and gaps are addressed to reduce morbidity and mortality from combat injury. Having the research performed in civilian systems and networks assures maximal translation of the knowledge and advances to the public and civilian medicine.

OSTEOARTHRITIS

Question. Discuss how the impact of the serious effects of arthritis might be worsening, improving, or continuing to affect service members and veterans?

Answer. According to the Centers for Disease Control and Prevention (CDC), 13.9 percent of adults 25 years and older and 33.6 percent of adults 65 years and older are affected by osteoarthritis (OA). Arthritis appears to be a significant burden among Veterans of the United States (US) Armed Forces. Research suggests that military service-related overuse and injuries may be a contributing factor for the increased risk of developing OA. Severe OA of the hip and knees causes debilitating pain and is a common cause of mobility impairments in elderly patients.

The Department of Defense (DoD), along with the Department of Veterans Affairs (VA), have made significant strides in the past 5 years in moving forward in ensuring that all patients with OA receive a full range of high quality care. The National Defense Authorization Act (NDAA) for Fiscal Year 2010 directed the Secretary of Defense to “develop and implement a comprehensive policy for the prevention, diagnosis, mitigation, treatment, and rehabilitation of arthritis.” In May 2011, the As-

sistant Secretary of Defense for Health Affairs published a policy memorandum for Comprehensive Arthritis Management. This memorandum noted that the Uniformed Services University of the Health Sciences Consortium for Health and Military Performance had been conducting research on the relationship between injuries and the subsequent development of OA in Service Members. That research, along with other programs from the military services helped to inform the development of a joint VA–DoD Clinical Practice Guideline for the non-surgical management of hip and knee osteoarthritis. This comprehensive, 126-page CPG was published last year (2014) and is available on the DoD–VA Clinical Practice Guideline webpage at <http://www.healthquality.va.gov/>.

The DoD is continuing its efforts to address the physical and emotional aspects of the individual with OA, as well as the family and community. Treatment and rehabilitation are interdisciplinary and multi-modal, and all modalities which are proven safe and effective are considered for inclusion in individualized arthritis management plans of care. Comprehensive care of OA patients is provided primarily through our Patient Centered Medical Homes which coordinate and synchronize patients' care from orthopedics specialists to physical therapists and comprehensive pain management clinics as needed.

Question. Explain what has been learned in osteoarthritis research about serious and debilitating diseases and how best to prevent them or mitigate their effects on service members, both during and after their service?

Answer. Currently, the Congressionally Directed Medical Research Programs and the arthritis research community are evaluating pre-clinical regenerative approaches to mitigate the effects of post traumatic osteoarthritis (PTOA) and are in the early stages of developing methods to prevent the secondary impact of PTOA in our Service Members. The osteoarthritis research community continues to explore multiple avenues to improve diagnostics and treatment. Since 2009, the U.S. Army Medical Research and Materiel Command has funded 34 projects evaluating various aspects of osteoarthritis.

Question. With our global military mission continuing to put service members in harm's way under physically stressful conditions likely to lead to additional arthritis related disabilities, does the Department have any recommendations for additional research priorities that could build upon what we are already learning through the arthritis research being conducted within the CDMRP?

Answer. Yes, research priorities in arthritis related to traumatic injury need to be diverse and evaluate the different avenues for the treatment and management of osteoarthritis to include: pharmacological, rehabilitative and regenerative approaches to the problem.

Panels from multiple congressionally funded special interest research programs have already identified osteoarthritis as a focus area for program announcements for proposal solicitation including: Peer Reviewed Medical Research Program, Peer Reviewed Orthopedic Research Program and the Neuromusculoskeletal Injury Research Awards.

EXPRESS SCRIPTS

Question. We continue to receive constituent complaints about poor customer service and wrong and/or late prescriptions from the prescription provider Express Scripts. What is the Department doing to resolve these issues before the program is expanded to significantly more beneficiaries?

Answer. The Defense Health Agency (DHA) monitors Express Scripts, Inc.'s (ESI) performance and compliance with contract terms through data metrics, government directed audits, and beneficiary communications. The contract metrics are based on industry standards and best practices. ESI is consistently compliant or above accuracy and customer service metrics.

Accuracy rate: ESI/Home delivery dispensed prescriptions were 99.998% accurate (January–March 2015).

Timeliness of prescriptions: In December 2014, ESI shipped 95.08% of prescriptions in 2 days (government minimum standard is 95%); and 99.11% of prescriptions that required a call to the beneficiary or physician were shipped within 7 days (government minimum standard is 95%).

Beneficiary satisfaction: The DHA has a contract with Deloitte Consulting/Zogby Analytics to conduct a quarterly survey on beneficiary satisfaction with Home Delivery. The latest survey covering the period of December 1, 2014 to February 28, 2015 shows that 97.0% of beneficiaries are completely, very satisfied, or satisfied while 2.3% of beneficiaries are completely or very dissatisfied.

The DHA does receive reports of incidents of beneficiary dissatisfaction and works closely with ESI to research and resolve issues as well as developing any corrective action plans.

Question. Will the new prescription-provider contract be competed? When is this scheduled to occur?

Answer. On April 18, 2014, after full and open competition, DHA awarded the TRICARE pharmacy purchased care contract (TPharm4) to Express Scripts, Inc. The contract began on May 1, 2015, and extends through seven one-year option periods. If all seven option periods are exercised, the current contract would end April 30, 2022.

POST-TRAUMATIC STRESS DISORDER

Question. Current PTSD diagnosis within the military relies heavily on self-reporting and is subjective. This subjectivity leads to high levels of missed diagnoses and mistaken diagnoses, and consequently, a high economic, social, and medical burden. Are you considering some of the new diagnostic tests for PTSD and have you considered conducting research of a molecular diagnostic test such as an objective blood-based test for diagnosing PTSD?

Answer. Yes, the Department of Defense has been actively pursuing alternatives to self-report-based diagnosing procedures, including both brain imaging and blood-based analysis.

The Systems Biology effort (initiated in 2009) represents our largest single effort toward this goal and at present this research consortium has identified molecular markers that circulate in the blood of individuals with PTSD that are not present in individuals without the disorder. The research is presently in the validation phase, and within a few years is anticipated to yield a blood-based, objective diagnostic test for PTSD. In addition to this effort there are several others within our research portfolio that share this goal. However, the Systems Biology group is farthest along in this research. Markers in this effort include genetic, epigenetic, proteomic, and metabolomic molecules that are consistent with expected underlying biological changes driving the behavioral/functional alterations consistent with expressed/observed PTSD symptomology.

[CLERK'S NOTE.—End of questions submitted by Mr. Aderholt. Questions submitted by Mr. Cole and the answers thereto follow:]

NIH/DoD PEER REVIEW PROCESS

Question. As you know, the NIH is a world class bio medical organization and its peer review system to review and select high quality projects for federal funding is second to none. However, I understand that at DoD, for its bio medical research activity the DoD has its own peer review process. Is there any reason why DoD should not use the NIH peer review process to prevent duplication of effort on managing and administering and to better coordinate the Defense Health Agency medical research portfolio with the NIH portfolio?

Answer. Yes, there are legal, funding timeline and management approach differences between military Research, Development, Test and Evaluation (RDTE) programs and NIH programs which prevent the use of the NIH peer review processes for the congressionally funded military RDTE programs. There are however multiple efforts between the Department of Defense (DoD) and the NIH for cross representation on agency panels and reviews, widespread sharing of research information, and increasing use of common databases.

Due to the nature of Congressional Directed Medical Research Programs (CDMRP) appropriations and the disease- or condition-specific mission of its programs, CDMRP has established a flexible management model of adapting each program's goals on an annual basis to meet the current needs of the stakeholders and community. CDMRP uses a two-tier review system that was recommended in 1993 by the National Academy of Science Institute of Medicine Report "Strategies for Managing the Breast Cancer Research Program: A Report to the U.S. Army Medical Research and Development Command". This report called for a first tier of review which is a scientific and technical merit review provided by newly constituted study sections focused on expertise unique to the research applications submitted to the program and a second tier of review which assesses all applications received by the program in comparison to each other and to the applications' relevance to programmatic goals.

Because of the uniquely-focused funding opportunities and highly variable nature of the applications, the first-tier peer review panels are newly-constituted with a balance of scientific experts, specialist reviewers, and consumer advocates who can

best review the type of applications assigned to the panel. The second-tier programmatic review panel consists of subject matter experts and consumer advocates who represent as many of the research and topic areas as possible. These members are recruited from academia, advocacy groups, the military, other funding agencies, and industry to ensure that all relevant stakeholders are involved in the decision making process. Other agency funding processes may be iterative, where applications are more likely to get funded after the PI responds once or more to reviewer comments. This approach is only possible with planned multi-year appropriations. CDMRP yearly appropriations require program planning specific to that year with no guarantee of future funding. For CDMRP programs, every application competes with the other applications in a given fiscal year for funding based on having the highest scientific merit and being best aligned with the goals of the respective program.

CDMRP's intent is to support research that addresses important and critical gaps that are not being covered by other funding agencies, complementing rather than duplicating. That philosophy continues to drive CDMRP's processes and is why the DoD engages and collaborates with expert representatives from the NIH, VA, and other non-DoD federal agencies by asking them to serve on peer review panels and on the individual programmatic panels which identify research gaps, define investment strategies, and make funding recommendations. The CDMRP also networks with multiple federal and non-federal committees to compare research portfolios, identify gaps in research funding, and improve existing research efforts. The CDMRP engages individuals from such federal and non-federal committees not only in the peer and programmatic review of applications, but also to serve on review boards to monitor and oversee the progress of awards. These collaborations strive toward synergy with other agencies and diversification of research portfolios, and underscore the importance of interagency research coordination efforts.

Question. Are there any known legal restriction from preventing DHA from establishing an agreement to use the existing NIH peer review and portfolio analysis functions to better coordinate and leverage how federal bio medical research funds are spent across the federal government programs?

Answer. Yes, there are legal, fiscal timeline and management approach differences that prevent DHA from establishing agreements to use existing NIH peer review and portfolio analysis functions. There are, however, multiple efforts between the Department of Defense (DoD) and the NIH for cross representation on agency panels and reviews, widespread sharing of research information, and increasing use of common databases.

Due to the nature of Congressionally Directed Medical Research Programs (CDMRP) appropriations and the disease- or condition-specific mission of the programs, a flexible management and administration model is required in order to adapt each program's goals for a specified fiscal year to address the current Congressional language and needs of the stakeholders. The review process for CDMRP programs must have the ability to frequently adapt to accommodate varied program requirements and most importantly be able to focus on unique program goals. Using a system that cannot meet those needs would run counter to the Institute of Medicine guidance and risk not executing according to Congressional intent.

Additionally, there are a number of DoD specific statutes—not regulations—that DoD must comply with which NIH might not be able or equipped to do so: Title 10 U.S.C. 2358, Title 10 U.S.C. 1071, and Title 10 U.S.C. 980. DoD must externally review certain proposals under Title 10 U.S.C. 1071, in very specific circumstances. The footnote to 10 U.S.C. 1071 specifically quotes Public Law 104–201, National Defense Authorization Act for FY 1997 which makes this a requirement for DoD research programs that do not apply to NIH programs. It would be difficult for the NIH to accommodate such requirements.

In addition, 10 U.S.C. 980 applies to funds appropriated to the DOD for a subset of research involving human subjects. 10 U.S.C. 980 is implemented by DOD Instruction 3216.02, and creates restrictions on research unique to DOD-funded research with which NIH may not be familiar. To the extent that NIH peer review process must deal with research compliance with applicable statutes, 10 U.S.C. 980 may be problematic for NIH to accurately apply.

However, CDMRP is already leveraging the portfolio analysis functions of NIH and VA through collaborations as well as data sharing between systems. CDMRP, in coordination with the Defense Health Agency and U.S. Army Medical Research and Materiel Command (USAMRMC), is working with the NIH to develop the requirements and test the feasibility of transferring medical research application data to the NIH Electronic Research Administration/Data systems which is the data source for the Research Portfolio Online Reporting Tools (RePORTER) application. Upon successful implementation of the pilot, a data feed from USAMRMC to the

NIH system is planned. This will allow multiple agencies and the public to have visibility of research application data submitted to assist in identification of potential duplication and facilitate funding decisions. The pilot is ongoing and set for completion by August 2015. Data on CDMRP executed projects from 2008–2013 is available through Federal RePORTER. Federal RePORTER currently hosts data from 7 agencies—Agriculture, Defense, Environmental Protection Agency, Health and Human Services, National Aeronautics and Space Administration, National Science Foundation and Veterans Affairs.

[CLERK'S NOTE.—End of questions submitted by Mr. Cole.]

WEDNESDAY, APRIL 15, 2015.

TESTIMONY OF MEMBERS OF CONGRESS

WITNESSES

HON. ALAN LOWENTHAL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

HON. TED LIEU, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

HON. DAVID JOLLY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

HON. JAMES McGOVERN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MASSACHUSETTS

HON. DENNY HECK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

HON. HENRY "HANK" JOHNSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF GEORGIA

HON. JEFF MILLER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

HON. PAUL COOK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

HON. BRADLEY BYRNE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ALABAMA

HON. EARL "BUDDY" CARTER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF GEORGIA

HON. KEITH ROTHFUS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA

HON. BRENDA LAWRENCE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

HON. ANN WAGNER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI

OPENING STATEMENT OF CHAIRMAN FRELINGHUYSEN

Mr. FRELINGHUYSEN. Good morning. The committee will come to order.

This morning the Defense Appropriations Committee holds an open hearing during which Members of the House of Representatives are invited to bring their concerns and issues regarding the future posture and force structure of the Department of Defense directly to our attention.

My ranking member and I are here today to take testimony from our colleagues in an effort to provide maximum Member participation as we work to draft the Department of Defense appropriations bill for fiscal year 2016.

At this time, I would like to recognize my ranking member, Mr. Visclosky, for any comments or statement he may wish to make

OPENING STATEMENT OF MR. VISCLOSKY

Mr. VISCLOSKY. Mr. Chairman, I do want to sincerely thank you for holding the hearing and allowing Members and outside witnesses to testify. One, I think it is very important to get our colleagues' input. Their knowledge of their districts, areas, and programs are vitally important to the subcommittee, and look forward to hearing all of their testimony. Thank you so much.

Mr. FRELINGHUYSEN. Thank you, Mr. Visclosky.

Our first guest this morning is Jim McGovern from the great State of Massachusetts. Thank you for being with us. And we are prepared to hear your testimony.

SUMMARY STATEMENT OF CONGRESSMAN MCGOVERN

Mr. MCGOVERN. Well, thank you very much, Mr. Chairman and Mr. Ranking Member. Thank you for allowing me this opportunity to testify today in support of funding a competitive grant program for nonprofits that train service dogs for our veterans. And specifically, I ask that the committee support a \$5 million request for the Wounded Warriors Service Dog program.

In addition, I request that the committee insert language addressing the benefits of canine therapy for treatment for PTSD and TBI symptoms. And I will include this language with my official statement.

I also want to express my gratitude to the chairman and ranking member for their assistance in securing the initial funding for this program during the fiscal year 2015 appropriations process. Last year this program was awarded \$1 million, and we are hoping to build upon that initial funding and continue to grow this competitive grant program.

Mr. Chairman, so many of our veterans are returning from war bearing both physical and emotional scars. We must do what we can to ensure that they have the access to treatments that work. Service dogs have shown to have a positive effect on the treatment of PTSD and TBI symptoms, and it is not coincidental that we have seen a significant growth in the demand for the service dogs as more of our veterans are returning home and in a need of this assistance.

During the last Congress, I had the opportunity to visit the National Education for Assistance Dog Services, or NEADS, which is located in Princeton, Massachusetts. I heard amazing stories about how service dogs are helping to treat veterans with physical disabilities, as well as those suffering from post-traumatic stress. This nonprofit organization has connected many deserving veterans with service dogs over the past few years with incredible results.

In the last few years, NEADS, like many of the other nonprofits providing this crucial service, have struggled to meet these growing levels of demand. Many nonprofits that train dogs for use by veterans are underfunded. The cost of training the service dog varies, but estimates range from \$15,000 to \$60,000 per dog, and training can take up to 2 years. Too often, a veteran's need for service dogs are unmet due to financial constraints. This competitive grant will help ease the increased financial burden that these organizations are facing.

In January, the VA launched a study on the potential benefits of service dogs for individuals with PTSD. They expect this study to end sometime during 2018 or 2019. But if you sit down with just a handful of our veterans who have received a service dog for PTSD, it will become as clear as day how helpful these dogs are.

Mr. Chairman, with so many of our veterans coming home from war suffering from post-traumatic stress disorder and other physical disabilities, it is critical that we offer them multiple treatment options, and connecting veterans with lifesaving service dogs should be one of those comprehensive care options. So I ask this subcommittee and my colleagues on both sides of the aisle to support this competitive grant program at the levels requested for fiscal year 2016 so that our veterans can receive the treatment that they deserve.

And let me just close with one story. One of the veterans that I met, Mr. Chairman and Mr. Ranking Member, had returned from serving in Afghanistan and could not leave his bedroom, never mind go to other rooms of his house, was heavily medicated on all kinds of prescription drugs. And then a service dog was introduced into his life, and he, because he had to care for the dog, actually, it forced him to get out of not only his bedroom, but out of his house. It was able to wean him off of all the drugs that he was on. And he is now back to work.

And so I think it is very clear that these service dogs have an incredibly positive effect on PTSD for our returning veterans, and I think we ought to do everything we can to make them available for people. So I thank you.

[The written statement of Congressman McGovern:]

TESTIMONY OF
U.S. REPRESENTATIVE JAMES P. McGOVERN (MA-02)

SUBCOMMITTEE ON DEFENSE
HOUSE APPROPRIATIONS COMMITTEE

FISCAL YEAR 2016 APPROPRIATIONS
DEFENSE HEALTH PROGRAMS

I want to thank Chairman Frelinghuysen and Ranking Member Visclosky for allowing me this opportunity to testify today in support of funding a competitive grant program for nonprofits that train service dogs for our veterans. Specifically, I ask the Committee to support a \$5 million request for the Wounded Warriors Service Dog grant program.

In addition, I request the Committee to insert language addressing the benefits of canine therapy for the treatment of PTSD and TBI symptoms. I will include this language with my official statement.

I also want to express my gratitude to the Chairman and Ranking Member for their assistance in securing the initial funding for this program during the FY15 appropriations process. Last year this program was awarded \$1 million and we are hoping to build upon that initial funding and continue to grow this competitive grant program.

Mister Chairman, so many of our veterans are returning from war bearing both physical and emotional scars, we must do what we can to ensure that they have access to treatments that work. Service dogs have shown to have a positive effect on the treatment of PTSD and TBI symptoms, and it is not coincidental that we have seen a significant growth in demand for the service dogs as more of our veterans are returning home in need of this assistance.

During the last Congress I had the opportunity to visit the National Education for Assistance Dog Services – or NEADS – located in Princeton, Massachusetts, I heard amazing stories about how service dogs are helping to treat veterans with physical disabilities, as well as those suffering from post-traumatic stress. This nonprofit organization has connected many deserving veterans with service dogs over the past few years with incredible results.

In the last few years NEADS, like many of the other nonprofits providing this crucial service, have struggled to meet these growing levels of demand. Many nonprofits that train dogs for use by veterans are underfunded. The cost of training a service dog varies, but estimates range between \$15,000 and \$60,000 per dog, and training can take up to two years. Too often does a veteran's need for a service dogs often unmet due to financial constraints. This competitive grant will help ease the increased financial burden that these organizations are facing.

In January, the VA launched a study on the potential benefits of service dogs for individuals with PTSD, they expect this study to end sometime during 2018 or 2019. But, if you

sit down with just a handful of our veterans who have received a service dog for PTSD, it will become as clear as day how helpful these dogs are.

Mister Chairman, with so many of our are veterans coming home from war suffering from post-traumatic stress disorder and other physical disabilities, it is critical that we offer them multiple treatment options. Connecting veterans with lifesaving service dogs should be one of those comprehensive care options.

I ask this Committee and my colleagues on both sides of the aisle to this competitive grant program at the levels requested for FY 2016 so that our veterans can receive the treatment they deserve.

Language Request for FY 16 Defense Appropriations

“The committee is aware that canine therapy for treatment of PTSD and TBI symptoms is a promising alternative or adjunct to pharmaceutical treatment, which can have harmful side-effects. In testimony before Congress, witnesses from the Services were positive about the potential for this treatment, calling canine therapy for PTSD “an emerging area of alternative therapy” that is “beneficial in the support of people with either physical or mental health diagnoses,” and that can “help reduce anxiety, lower emotional reactivity, and provide a sense of security.” While still experimental, canine therapy has shown effectiveness in treating PTSD and other psychological disorders, from hospitalized psychiatric patients to children with developmental disorders, patients with substance abuse problems, and victims of trauma. The Services’ report that service members who participate in their canine programs for PTSD and TBI show more positive social interactions, a decrease in suicidal thoughts, an increased sense of safety, independence, motivation, and self-efficacy. The committee notes that canine therapy is a promising area for further research as a complementary or alternative treatment for the signature wounds of the ongoing conflict. Therefore, the committee provides funds and continues to encourage the Services to initiate or expand their research into canine therapy to validate its therapeutic effectiveness in the treatment of PTSD and TBI.”

Mr. FRELINGHUYSEN. Mr. McGovern, we thank you for your strong advocacy. I have a number of veterans in my home State of New Jersey. Very therapeutic to have these incredible canines who link up mentally and physically with some of these remarkable soldiers with very, very bad physical and mental wounds. So we are strongly supportive of this program and appreciate what will hopefully be your annual advocacy, that all Members hold the program dear.

Mr. MCGOVERN. Thank you.

Mr. FRELINGHUYSEN. Any comments, Mr. Visclosky?

Mr. VISCLOSKY. I simply would thank the gentlemen too for his concern about those who are returning after their service to our country and coming up with a good idea and being persistent.

Thank you very much, Mr. McGovern. Appreciate it.

Mr. MCGOVERN. I want to say thank you to both of you and your staff for opening up this process so that all the Members, not just those on your committee, can have a chance to testify. I appreciate this very much.

Mr. FRELINGHUYSEN. Well, thank you. That is the idea behind this opportunity. Thanks so much.

Mr. FRELINGHUYSEN. Pleased to welcome Congressman Alan Lowenthal from California. We started a little bit early, but a little bit early is not bad down here.

Mr. LOWENTHAL. No, that is wonderful.

Mr. FRELINGHUYSEN. We appreciate you taking time out of your busy schedule to be with us this morning.

SUMMARY STATEMENT OF CONGRESSMAN LOWENTHAL

Mr. LOWENTHAL. Well, thank you, Chairman Frelinghuysen and Ranking Member Visclosky, members of the committee. Thank you for allowing me this time to discuss with you the importance of STEM education for the Department of Defense, specifically the STARBASE program.

Providing science, technology, education, and math education to America's youth is critical to the global competitiveness of our Nation. The STARBASE program engages local fifth grade elementary students by exposing them to STEM subjects through an inquiry-based curriculum that is currently active now in 56 congressional districts throughout the country. The program is carried out by the military service because the lack of STEM education and STEM-educated youth in America has been identified as a future national security issue by the Department of Defense.

As somebody who is very close to that program and gone through and watches those students, I can just tell you, this is a wonderful, wonderful program. It is one of the most cost-effective programs.

We are asking again to restore the STARBASE program at a modest funding level of \$30 million. The DOD STARBASE program costs only \$343 per student. Last year, over 3,000 classes were conducted in 1,267 schools, among a diverse 413 school districts across the country. More than 70,000 students attended the program, bringing the program to a total of 825,000 since its inception.

I would just like to say I came back from my own STARBASE program, and I just received this message from Stacey Hendrickson of the California State Military Reserve, who is the director of the

STARBASE program at the Los Alamitos Joint Forces Training Base, which is in my district. And she says, "Congressman Lowenthal, I wanted to let you know that one of our schools, the 96th Street Elementary School in Watts, earned their highest science standardized tests ever. We were very excited to hear, as all these students had shown a big increase in our own pre- and post-testing"—I can show you that—"and now these students are showing dramatic improvement on their API performance, the Academic Performance Index."

So we are now beginning to have a lot of data to support this. I can just tell you, to watch fifth graders on a military base, as I did just this past week, program robots, work with these robots, fifth graders, watch these robots and learn the scientific method as they saw the problems, as they built a tremendous place for them to demonstrate this, a terrain, and then, when that didn't work, to go back to their computers, fix it, understand that science is a process of correction and following a particular procedure.

These are little kids, and I am amazed to watch them. And the fact that we have the ability on our bases to really inspire young children to follow science and technology and mathematics and engineering at this very young age, never would have been exposed to this.

And we know how critical that by the fourth grade students begin to lose interest in science and technology, and if they come from environments where they are not exposed to this. It is really through, I think, this call by the Department of Defense to really promote science technology as a national issue, defense issue.

And I am just really pleased to be here. I cannot think of a better use of \$30 million. I want to thank the committee and the chairman last year for putting it back into the budget. I hope you will do the same. This is a great, great program at a fraction of the cost.

And you can see also, like out at my base, how excited those volunteers are to teach these kids, because they feel like they are doing something for their country. They are educators frequently. I have lots of Army Reserve and National Guard folks, and they feel like they are really promoting, they are coming on the base and doing what is so important for the Nation.

And they can provide these young children experiences that they can't get in public educational schools because they don't have the ability to use the computerized setting. They have 3D printers. We built rockets one day. Can you imagine, fifth graders building rockets? It is just a great program.

[The written statement of Congressman Lowenthal follows:]

**Testimony for Rep. Lowenthal
House Committee on Appropriations**

Chairman Frelinghuysen, Ranking Member Visclosky, and Members of the committee, thank you for allowing me this time to discuss with you the importance of STEM education for the Department of Defense, specifically the STARBASE program.

Providing Science, Technology, Education and Math education to America's youth is critical to the global competitiveness of our nation. The STARBASE program engages local fifth-grade elementary students by exposing them to STEM subjects through an inquiry based curriculum and is currently active in 56 Congressional Districts throughout the country. The program is carried out by the military services because **the lack of STEM educated youth in America has been identified as a future national security issue by the DoD**. However, for the last two years both the House and Senate have had to rebuke the Office of Management and Budget's proposal to terminate this critical program.

And today I ask that you join me to again restore the STARBASE program at a modest funding level of \$30 million.

The DoD STARBASE program is one of the most cost-effective programs across all of federal government, costing an average of only \$343 per student. Last year 3,062 classes were conducted in 1,267 schools, among a diverse 413 school districts, across the country. More than 70,000 students attended the program, bringing the total to 825,000 since its inception in 1993.

STARBASE is one of the most educationally effective STEM programs as well. Studies show pre- and post-STARBASE youth demonstrate an undisputed improvement in STEM fields. Just as crucial is the positive disposition change the youth experience after participating in the exciting, hands-on, experiment-based program. Changing our children's' attitudes on math and science from negative to positive is a paramount achievement. Research shows that students begin to lose interest in STEM subjects as early as fourth grade and as a result, are not motivated to select the necessary high school courses that will allow them to pursue STEM careers in college.

I want to share with you a message I received from Stacey Hendrickson of the California State Military Reserve and Director of the STARBASE Program at the Los Alamitos Joint Forces Training Base in my district,

“Congressman Lowenthal, here are two sets of pre and post testing for two of our Los Angeles schools. I wanted to let you know that one of our schools, 96th Street Elementary in Watts, earned their highest science standardized test scores ever last year! This is significant because the class is second year remediation and has English Language Learners (ELL) and Special Needs students. Every student's score went up, so this is a class that was very special to us. We were all very excited to hear that, as those students had all shown a big increase in our own pre and post test scores. We were happy to see that the improvement was seen on their Academic Performance Index (API) scores as well.

Sunrise Elementary in Los Angeles had a mean increase of roughly 23%, which is a typical increase for the five days they are with us. These students also showed significant increases in Academic Performance Index scores. I wanted to share this with you, as you have been instrumental in making sure our students have the opportunity to come here. Your dedication makes such a difference in the education of our community.” Chairman Frelinghuysen and Ranking Member Visclosky, I am including the test scores with my testimony.

Finally, as a member of Congress, I fully appreciate OMB's desire to consolidate STEM programs across the spectrum into one funding line. However, this **IS** a national defense issue and has been identified by the joint chiefs as such. STARBASE was created under the auspices of the Department of Defense to meet its critical needs in STEM-related fields. Fully, 67 percent of all those who entered the fields of science and engineering in the U.S. between 1995 and 2006 were immigrants. And many immigrants cannot acquire the national security clearances necessary to work on vital defense projects.

Again, I respectfully request that this committee reinstate the STARBASE program and authorize it at \$30 million for this and for future years to come.

STARBASE inspires America's youth to discover technical career fields that are imperative for future national security challenges. We cannot lose this battle and concede our technical edge to the rest of the world.

Thank you.

Turning Statistics Report

Session Name: 96th-Gomez-pre
Created: 9/11/2016 1:57 PM

Mean Correct %: 25.71%
Median Correct %: 26.92%
Mode Correct %: 19.23, 26.92, 30.77, 34.62%

15.8
33.33
16.16
4.17
Pretest

Device ID	User ID	Last Name	First Name	Total % Correct	vs Mean	vs Median
107A19		Alvarez	Yoni	34.62%	+8.91%	+7.71%
107A21		Canillo	Felician	0%	-25.71%	-16.92%
107A26		Ortiz	Hennestey	19.23%	-6.48%	-7.69%
107A27		Escobar	Isa	18.46%	-7.25%	-8.46%
107A28		Pomeroa	Guillermo	26.92%	+1.21%	+0%
107A33		Gutierrez	Valeria	19.23%	-6.48%	-7.69%
107A33		Hernandez	Jonathan	0%	-25.71%	-16.92%
107A36		Barra	David	15.38%	-10.33%	-11.54%
107A48		Zamora	Manuel	7.69%	-18.02%	-19.23%
107A61	perena	Lopez	Nector	19.23%	-6.48%	-7.69%
107A66	delgad	Marquez	Jonathan	30.77%	+5.06%	+3.85%
107A62		Marquez	Yamirah	0%	-25.71%	-16.92%
107A35		Murcia	Isa	30.77%	+5.06%	+3.85%
107A35		Chunchoa	Christopher	26.92%	+1.21%	+0%
107A40		Rivera	Anderson	11.54%	-14.17%	-15.38%
107A11		Blanca	Brandon	0%	-25.71%	-16.92%
107A45		Romero	Genives	46.15%	+20.44%	+18.23%
107A46		Salcedo	Vivian	34.62%	+8.91%	+7.71%
107A46		Dominguez	Yammy	0%	-25.71%	-16.92%
107A15		Sedano	Roman	23.08%	-2.6%	-3.81%
107A50		Amilcar Tena	Andrian	24.62%	-1.09%	-2.27%
107A31		Torres	Luys	28.85%	+3.14%	+1.93%
107A42		Vega	Jonathan	11.54%	-14.17%	-15.38%
107A61		Viveros	Ena	30.77%	+5.06%	+3.85%
107A39				0%	-25.71%	-16.92%
107A47				0%	-25.71%	-16.92%
107A38				0%	-25.71%	-16.92%
107A3A				0%	-25.71%	-16.92%
107A66				0%	-25.71%	-16.92%
107A51				0%	-25.71%	-16.92%
107A46				0%	-25.71%	-16.92%
107A48				0%	-25.71%	-16.92%
107A40				0%	-25.71%	-16.92%
107A2A				0%	-25.71%	-16.92%
107A2A				0%	-25.71%	-16.92%
107A63				0%	-25.71%	-16.92%
107A72				0%	-25.71%	-16.92%
107A22				0%	-25.71%	-16.92%
107A32				0%	-25.71%	-16.92%
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Turning Statistics Report

Session Name: 96th Gomez Post
Created: 10/22/2014 3:05 PM

Mean Correct %: 40.62%
Median Correct %: 37.50%
Mode Correct %: 35.71%

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AF4181	3	Diaz	Helenandy	39.29%	-1.33%	-11.79%
AF1191	4	Castro	Tania	42.86%	+1.24%	-1.79%
AF13C2	5	Enriquez	Gustavo	33.14%	-8.48%	-8.59%
ADA6G5	1	Gutierrez	Valeria	35.71%	-4.24%	-1.79%
AEF741	4	Jaraman	Amberly	35.71%	-15.42%	-12.5%
AF1308	4	Barra	Dani	28.57%	-12.06%	-8.59%
AF0651	10	Jimenez	Michael	35.71%	-3.92%	-2.79%
AEFD5A	Jerome	Lopez	Hector	25%	-15.62%	-12.5%
AF0C3F	2	Marquez	Kimberly	46.43%	+6.81%	+6.85%
AF099A	11	Morales	Yvonne	22.14%	-8.48%	-5.39%
AEF73E	AD8A8	Morales	Luiz	57.14%	+36.52%	+10.64%
AF03F9	chuan1	Quinones	Christopher	53.57%	+12.95%	+10.07%
AD80D7	848	Rivera	Anderson	35.71%	-4.91%	-1.79%
AF1A1F	16	Rivera	Brandon	50%	+9.38%	+12.5%
AF0C1B	10	Romero	Genives	88.71%	+4.93%	+1.79%
AF174C	18	Salcido	Miguel	50%	+9.38%	+12.5%
AF189D	21	Sanchez	Valmery	32.14%	-8.48%	-5.39%
AF19E5	20	Santiago	Ramon	31.14%	-8.48%	-5.39%
AEF017	Talpa	Amador Yana	Adrian	35.71%	-4.91%	-1.79%
2190	13	Turcios	Hoyt	57.14%	+10.02%	+10.07%
AD80ZA	Dimmy	Vega	Jonathan	53.57%	+12.95%	+10.07%
AD834C	4	Viveros	Eric	50%	+9.38%	+12.5%
AF0FC9				0%	-40.62%	-37.5%
AF0FA9				0%	-40.62%	-37.5%
AD8073				0%	-40.62%	-37.5%
AD84F8				0%	-40.62%	-37.5%
AF0B8B				0%	-40.62%	-37.5%
AD802E				0%	-40.62%	-37.5%
AE1044				0%	-40.62%	-37.5%
AF1C40				0%	-40.62%	-37.5%
AF03DA				0%	-40.62%	-37.5%
AF11A8				0%	-40.62%	-37.5%
AF11A8				0%	-40.62%	-37.5%
AF17C3				0%	-40.62%	-37.5%
AEF79E				0%	-40.62%	-37.5%
AEF7CC				0%	-40.62%	-37.5%
AD80E1				0%	-40.62%	-37.5%
AD8CFD				0%	-40.62%	-37.5%

Standard of 12.5
Exceed 9/24/14
Post test

24

13.53

Turning Statistics Report

Session Name: Grape fri grp 1 pretest AM
Created: 3/21/2014 3:12 PM

Mean Correct %: 28.54%
Median Correct %: 30%
Mode Correct %: 20%

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AD9F47	-	Brown	Janiya	40%	+11.46%
AF1181	-	Bustillo	Stacy	35%	+6.46%
AF1191	-	Cox	Ken	35%	+6.46%
AF11C2	-	Quinn-Cole	Katarin	20%	-28.54%
ADA605	-	Govan	Keyonta	20%	-8.54%
AEF742	-	Gray	Lupres	0%	-28.54%
AF1988	-	Hernandez	Manzancheske	15%	-13.54%
AF0851	-	Hill	Jennifer	30%	+1.46%
AEFD5A	-	Knight	Bercome	30%	+1.46%
AF0C26	-	Martinez	Williams	20%	-8.54%
AF0F9A	-	McCall	Traylon	25%	-3.54%
AEF73E	-	McDonney	Sourney	40%	+11.46%
AF03F9	chistain	Miguel	Monica	40%	+11.46%
AD9A007	-	Montano	Carolina	30%	-8.54%
AF1AE7	-	Munoz	Dalliah	45%	+16.46%
AF0C1B	-	Perez	Oscar	20%	-8.54%
AF17FC	-	Phoenix	Carlos	35%	-13.54%
AF183D	-	Rivas	Valerie	40%	+11.46%
AF1965	-	Salas	Steven	20%	-8.54%
AEFD17	Topp	Sanchez	Wendy	20%	+1.46%
2290	-	Tresvant	De Asia	40%	+11.46%
AD9D2A	-	Vasquez	Grayson	30%	-28.54%
ADA5F6	-	Wiborn	Mario	0%	-28.54%
AF0FC9	-	Williams	John	20%	+6.46%
AF0FA9	-	Wooden	Mare	0%	-28.54%
AD9D73	-	-	-	0%	-28.54%
ADA5F8	-	-	-	25%	-3.54%
AEF683	-	-	-	20%	-8.54%
AD9D2E	-	-	-	0%	-28.54%

Turning Statistics Report

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Mean Correct %: 52.38%
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Device ID	User ID	Last Name	First Name	Total % Correct	vs Mean	vs Median
107A19		Dubose	Robert	52.38%	+14.29%	+14.29%
107A21		Bennett	Janice	52.38%	+9.52%	+9.52%
107A26		Bustillo	Stacy	0%	-52.38%	-52.38%
107A28		Cox	Ken Yuan	52.38%	0%	0%
107A64		Hernandez	Walter	52.38%	+14.29%	+14.29%
107A33		Gowan	Myron	42.86%	-4.76%	-4.76%
107A73		Kirk	Leanne	0%	-52.38%	-52.38%
107A5A		Hernandez Mancano	Leslie	4.76%	-47.62%	-47.62%
107A44		Hill	Jeffrey	38.1%	-14.29%	-14.29%
107A6f	jerome	Knight Jr.	Jerome	57.14%	+4.76%	+4.76%
107A28		Martinez	Roberto	52.38%	+9.52%	+9.52%
107A42		McCall	Tracy	42.86%	-4.76%	-4.76%
107A3D		McCall	Shawna	52.38%	+9.52%	+9.52%
107A35		Miguel	Monica	52.38%	0%	0%
107A40		Montano	Carolina	0%	-52.38%	-52.38%
107A11		Munoz	Dalilah	38.1%	-14.29%	-14.29%
107A95		Perez	Carla	0%	-52.38%	-52.38%
107A48		Pope	Quinn	38.1%	-14.29%	-14.29%
107A4C		Rivas	Valerie	42.86%	-9.52%	-9.52%
107A15		Salas	Steven	52.38%	0%	0%
107A5D		Sanchez	Wendy	0%	-52.38%	-52.38%
107A31		Trevino	De Asia	47.62%	-4.76%	-4.76%
107A3C		Wasson	Shirley	52.38%	+9.52%	+9.52%
107A61		Wideman	Mark	66.67%	+14.29%	+14.29%
107A25		Wideman ID	John	66.67%	+9.52%	+9.52%
107A47		Wasson	Marc	47.62%	-4.76%	-4.76%
107A10		Johnson	Avionna	52.38%	0%	0%
107A3A	g14e	Velasco	Steve	52.38%	0%	0%
107A68				0%	-52.38%	-52.38%
107A51				0%	-52.38%	-52.38%
107A46				0%	-52.38%	-52.38%
107A4B				0%	-52.38%	-52.38%
107A50				0%	-52.38%	-52.38%
107A1A				0%	-52.38%	-52.38%
107A6C				0%	-52.38%	-52.38%
107A72				0%	-52.38%	-52.38%
107A2C				0%	-52.38%	-52.38%
107A32				0%	-52.38%	-52.38%
107A20				0%	-52.38%	-52.38%

Mr. FRELINGHUYSEN. Mr. Lowenthal, thank you very much for your advocacy. We certainly know over the years that they have built things other than rockets. And I am glad they are doing it.

And, as you are aware, when the President's budget comes over, the last couple of years it has been absent this STAR program. I can assure you that we will put the money back. It is something which is very important, I think, to all of our Members of Congress regardless of political affiliation. And I think the proof is in the pudding.

Mr. LOWENTHAL. And I actually have some test scores to indicate how our fifth graders have improved on both the pre- and post-tests we have done, and also now on the Academic Performance Index too.

I want to thank the committee. You have been great for putting it back in on both sides of the aisle. And I just think it is a wonderful use of a very small amount of money.

Mr. FRELINGHUYSEN. Well, it is a national program and a congressional add that I think we can strongly support.

Mr. LOWENTHAL. Thank you.

Mr. FRELINGHUYSEN. Thank you.

Mr. LOWENTHAL. I really appreciate that.

Mr. FRELINGHUYSEN. Pleased to recognize one of our colleagues from the Appropriations Committee, Congressman David Jolly.

David, thanks for being with us this morning.

SUMMARY STATEMENT OF CONGRESSMAN JOLLY

Mr. JOLLY. Thank you. Mr. Chairman, Ranking Member Visclosky, thank you for the opportunity to touch this morning just very quickly on three programs, each of which have been submitted either through written testimony or through the Member request process. And I also want to thank the professional staff for their assistance throughout this process.

The three I want to touch on this morning, though, one is a very small but very successful Navy program that began through the SBIR process, the Navy has continued to invest in. And believe it or not, it is actually a program that did receive a Rapid Innovation Award in recent years. It is a radar and electronic system alignment tool that has now been fully deployed on Aegis-class cruisers and destroyers, replacing what used to be a man-based system to repair down radar, down electronic systems over a period of days using paper-based manuals. This is simply an electronic radar alignment tool that went through the R&D process, is now being fully deployed with Aegis.

My request to the committee today, though, is that the Rapid Innovation Award money that was awarded in the last 18 months actually was awarded to transition this technology to LCS, which is really where this capability fits in terms of the LCS platform, reduced manpower, improved readiness. It is a lightweight, efficient, low-cost tool that actually does solve manpower needs, as well as readiness.

My concern is because there was a Rapid Innovation Award for this technology awarded to, frankly, a single technology company, being able to sustain that technology investment going forward, my ask of the committee would simply be to work with the LCS office

to make sure sufficient resources are there to continue the investment in this technology as it is transitioned to LCS.

The second is somewhat a regional issue, but also one of national importance, and that is the SOCOM S&T portfolio. You know, in the Tampa Bay area, this is something that I see the impact of SOCOM S&T, not just for the warfighter, but also throughout the industry partners that support the warfighter. I also have personal relationships within the acquisition office there in S&T. I know the good work that they do. I know the innovation that they bring to the portfolio. And we all know the importance of keeping the SOF community within the SOF lanes, but allowing them to address SOF unique needs. And I think continued investment, robust investment in SOCOM S&T is critical to that.

The last one is really one that is easy, I believe, for everybody in this room, but personal for so many, and it is a program that started in this room by my predecessor and your colleague, Bill Young. And that is the C.W. Bill Young Department of Defense Bone Marrow Program.

That was begun in this room by this committee. That was continued by this committee. We have 800,000 members of the Armed Forces that are registered in the program, having provided over 10,000 donations, lifesaving donations already. It obviously is a program that requires the continued support of this subcommittee to ensure its success.

So I would ask for your consideration of that, as well as the continued investment in medical research that uniquely comes through this committee. I mean, this subcommittee has led the way in medical research areas that other subcommittees have not been able to do, from wound healing to disease-specific accounts or programs. And I would ask for continued investment in that.

I appreciate the time this morning. I yield back, Mr. Chairman.
[The written statement of Congressman Jolly follows:]

Congressman Jolly – FL-13
Testimony on the Defense Appropriations bill for Fiscal Year 2016
April 15, 2015

Chairman Frelinghuysen, Ranking Member Visclosky, and other Members of this Subcommittee:

Thank you for providing me with this opportunity to share my thoughts on matters that I believe the Fiscal Year 2016 (FY16) Department of Defense Appropriations Act should thoroughly consider. The work of this subcommittee is no small task, and I am grateful for your steadfast dedication to fulfilling the most important Constitutional responsibility of Congress, to provide for our common defense.

Firstly, I would like to discuss the Littoral Combat Ship (LCS) program and Condition Based Maintenance capabilities. As described by the Navy, LCS “is a fast, agile, focused-mission platform designed for operation in near-shore environments yet capable of open-ocean operation. It is designed to defeat asymmetric ‘anti-access’ threats such as mines, quiet diesel submarines and fast surface craft.” Funding through the Rapid Innovation Fund program has been utilized by the Navy for the development and testing of an advanced Condition Based Maintenance and distance support capability for the LCS. This capability will increase combat readiness, streamline LCS’ ability to perform combat system element advance maintenance planning and execution, and enable reliable and secure transmission of combat system data to meet current and future Navy cybersecurity advancements. I urge the subcommittee to ensure continued funding for this program and technology.

Secondly, on a recent visit to MacDill Air Force Base, I had the opportunity to meet with military personnel at U.S. Special Operations Command (SOCOM) and U.S. Central Command (CENTCOM). Mr. Chairman, I know that you understand and appreciate the work and security that these Commands provide to the American people. This has been evident through the support you've provided SOCOM and CENTCOM over the years. I wholeheartedly thank you and the subcommittee for that. On this occasion, I would like to draw your attention to the importance of SOCOM's Special Operations Forces Acquisition, Technology and Logistics (SOF AT&L) Science and Technology (S&T) Accounts. SOCOM SOF AT&L's aim is to apply and invest resources to provide asymmetric advantage for our Special Operations Forces (SOF). During the past few years, S&T accounts have provided capabilities of decisive importance that directly support SOF missions, to include: 4 major types of tags/taggants; unattended ground sensors; 8 communications/dissemination capabilities; 1 portable biometrics/forensics rapid DNA device; 2 technical support systems; Military Information Support Operations (MISO) program projects; and 5 Geospatial Intelligence (GEOINT)/Signals Intelligence (SIGINT) payloads/devices. It's of the utmost importance that we provide adequate resources to ensure our men and women in uniform maintain the technological advantage on the battlefield, and for this reason I urge the subcommittee's continued support of SOCOM Science and Technology programs.

Thirdly, with the sophistication behind cyber threats growing on a daily basis, it is critical that we provide our Armed Forces with the capabilities and resources necessary to maintain effective cyber defenses. Sufficient resources are necessary for maintaining and improving CENTCOM's

cyber operations, which include cybersecurity technical support, Computer Network Defense products and solutions, Identity Management, and Cyber Situational Awareness/Common Operating Picture (SA/COP) capabilities. Throughout the CENTCOM Theater, any shortfalls in cybersecurity will hinder the Commander's ability to detect adversarial activity and maintain real-time situational awareness, which is a necessity for posturing and maneuvering cyber forces. I urge the subcommittee to consider this issue when finalizing Department of Defense funding.

In closing, I would like to express my appreciation for this opportunity to provide testimony as to what I believe our FY2016 Defense Appropriations bill should encompass. I look forward to working with you and the other members of the subcommittee during the 114th Congress to ensure that our nation's defense spending is thoroughly debated and is carried out in the most responsible way to protect our nation and her people.

Mr. FRELINGHUYSEN. The committee would like to thank Mr. Jolly for his advocacy in a number of areas, the areas that you have mentioned this morning, as well as other important aspects to our committee. Considering the size of our Navy, which is probably the smallest it has ever been, we need to make sure that our Navy has every capability. So certainly your bringing this issue of this extra technology, which makes the existing program even more worthwhile and capable, it is important for us to be aware of that and we certainly will consider that.

And when you talk about science and technology, those are the initials, just to break them down, those types of investments for the special operations community, considering the burden and responsibility that has been placed on them by our Commander in Chief and by Members of Congress to do some exceptionally difficult tasks around the world, often unheralded and not well known. So certainly that is an aspect of our work that, I think, historically we have been supportive of, but it is good to have some greater advocacy for that as well.

And lastly, just being in this room, for Mr. Visclosky and all of us who work on behalf of the committee, the staff, one of the most remarkable things about my predecessor and actually your predecessor, the late Congressman Bill Young, was his advocacy for this bone marrow program. And the science that has come from that program, besides the whole issue of bone marrow—

Mr. JOLLY. That is right.

Mr. FRELINGHUYSEN [continuing]. Has been transported into other parts of defense healthcare support and into the private sector in ways perhaps you know better than most of us. We had quite a long hearing, 2½ hours yesterday, with the Surgeon Generals, one of whom, Admiral Nathan, worked particularly closely—

Mr. JOLLY. Sure.

Mr. FRELINGHUYSEN [continuing]. With Congressman, former chairman Bill Young, and I think he was one of those who was a very strong advocate and supporter of the bone marrow registry program.

Mr. JOLLY. Right.

Mr. FRELINGHUYSEN. So we will be supportive of it, knowing that it helps a lot of those in military life, as well as obviously in civilian life.

Mr. JOLLY. I appreciate that.

Mr. FRELINGHUYSEN. Mr. Visclosky.

Mr. VISCLOSKY. One, I just appreciate your participation on the committee.

And in reference to Mr. Young, I think all of us are here because we had wonderful families and great mentors. And I continue to recollect a question I received from a middle school student a couple of years ago, and she got a gold star, because I had never been asked that question in 30 years. And she says, "Which Member of Congress do you deal with the most?" And I said, "Oh, that is easy. Bill Young. He is a Republican from Florida."

And normally I would never addendum the Republican part, but I have a reasonably Democratic district. And it led to a wonderful discussion, is that contrary to what people see in the institution,

there are very serious, decent people trying to move this country forward. And certainly you are following in his footsteps.

So appreciate your concern and your participation today.

Mr. JOLLY. Thank you.

Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Pleased to welcome Congressman Ted Lieu from California. Thank you very much for being with us. We got a little earlier start than we anticipated, but that is not all bad. But we are very pleased you took the time out of your busy schedule to be here with us.

SUMMARY STATEMENT OF CONGRESSMAN LIEU

Mr. LIEU. Thank you.

Mr. Chairman and Ranking Member Visclosky, I want to thank you for the tireless effort that you and your staff put forward to ensure that our Nation remains safe. As a lieutenant colonel in the United States Air Force Reserves who previously served on Active Duty, I have firsthand experience with the support this subcommittee provides to our men and women in uniform.

I want to particularly thank the subcommittee's work on aerospace and space issues. As a Representative for the 33rd Congressional District, I work in both military and civilian capacities with LA Air Force Base and its Space and Missile Systems Center, and surrounding the base is an incredible array of institutions and research facilities and defense companies. And collocated with the base is a production line for the F-18 fuselage, which is a program I am here to testify about today, which is the F-18 program.

I would like to add my strong support for the program as you consider the fiscal year 2016 defense appropriations bill. This program has an estimated annual impact of \$1 billion throughout California, 40 percent of which is in my district. And from a national security perspective, the program is at a critical pivot point as the Navy considers its warfighting requirements and the strength of its aviation fleet.

As you know, the F-18 has provided the Navy with two unique and essential aircraft for our Nation's warfighter, the F-18 Super Hornet and the EA-18G Growler. The Super Hornet remains the Navy's premier operational strike fighter flying from forward-deployed aircraft carriers. These aircraft flew their first missions against the Islamic State of Iraq and Levant, and they serve as a workhorse of Naval aviation for all missions in all threat environments. With a plan to be part of the fleet until 2040, at least, the Super Hornet is a key component of the Navy's aviation plan for the next three decades.

Additionally, the Growler is the DoD's proven airborne electronic attack asset, and it provides jamming, not just for the Navy, but for all the Services. And the Growler is truly a national asset and the Department's only resource for airborne electronic attack. And as you know, in a time when control of the electromagnetic spectrum is important, it is a key discriminator for battle.

Unfortunately, the fiscal year 2016 budget does not include funding for the continued production of either the Super Hornet or the Growler. After the budget submission, the Navy added 12 F Model

Super Hornets to its unfunded priority request, highlighting that it does not have a sufficient amount of aircraft in its inventory.

And the most immediate challenge that the F-18 confronts right now is that they may need to close a production line if they can't keep building these F-18 fighters, and we are going to need these well into the future.

And so with that, I would love you to consider these 12 aircraft, and thank you so much for listening to my testimony today.

[The written statement of Congressman Lieu follows:]

Testimony of Representative Ted Lieu (D-CA)
Member of Congress
33rd Congressional District of California
Before the House Committee on Appropriations
Subcommittee on Defense
April 15, 2015

Mr. Chairman and Ranking Member, and Members of the Subcommittee, I want to thank you for the tireless work and effort that you and your staff put forward to ensure that our Nation remains safe. As a Lieutenant Colonel in the United States Air Force Reserves who previously served on active duty, I have firsthand experience with the support this Subcommittee provides to our men and women in uniform.

I want to particularly thank the Subcommittee's work on aerospace and space issues. As the representative for California's 33rd Congressional District, I work in both military and civilian capacities with Los Angeles Air Force Base and its Space and Missile Systems Center, which is tasked with researching, developing, acquiring and launching our country's military space systems. Surrounding the base is a unique and incredible array of institutions and companies focused on space and aerospace, ranging from the federally-funded research and development center Aerospace Corporation to world-class universities. Together, they have driven the growth of one of the largest hubs of aerospace industry in the country, employing thousands of technical workers, PhDs, and manufacturers, and producing more engineering graduates than any other region in the country. Adjacent to the base is the production line for the F/A-18 fuselage, which is the program I am here to testify about today.

I would like to add my strong support for the F/A-18 program as you consider the Fiscal Year 2016 defense appropriations bill. This program has an estimated annual economic impact of

\$1 billion throughout California, 40 percent of which occurs in my district, with 274 vendors and suppliers and thousands of employees. From a national security perspective, the program is at a critical pivot point as the Navy considers its warfighting requirements and the strength of its aviation fleet.

As you know, the F/A-18 program has provided the United States Navy with two unique and essential aircraft for our Nation's warfighter, the F/A-18E/F Super Hornet and EA-18G Growler. The Super Hornet remains the Navy's premier operational strike fighter, flying from forward deployed aircraft carriers. These aircraft flew the first missions against the Islamic State of Iraq and the Levant (ISIL), and they serve as the workhorse of naval aviation for all missions, and all threat environments. With a plan to be part of the fleet into 2040, the Super Hornet is a key component of the Navy's aviation plans for the next three decades.

Additionally, the Growler is the Department of Defense's proven airborne electronic attack asset, providing jamming not just for the Navy, but all the services. We are in a time when control of the electromagnetic spectrum is a key discriminator in battle. The Growler is truly a national asset and the Department's only resource for airborne electronic attack. Today, the Department is finalizing a study that could indicate the need for a greater requirement of Growler aircraft in order to prosecute missions of the future in highly contested environments.

Unfortunately, the Fiscal Year 2016 budget does not include funding for continued production of either the Super Hornet or Growler. After the budget submission, the Navy added 12 "F Model" Super Hornets to its unfunded priority request, highlighting that it does not have a sufficient amount of aircraft in its inventory.

The most immediate challenge is that the F/A-18 confronts the difficult decision to keep open or close its production line may need to close without aircraft in FY16. The Subcommittee

must weigh many factors as it crafts its budget, but if F/A-18 aircraft are not added this year, the Navy may not have the ability to address its shortfall in future years. The Nation would also be left with a single tactical aircraft manufacturer, eliminating competition that has driven efficiency and innovation in aviation, and negatively affecting 60,000 workers that contribute to the F/A-18 program, including many in my own home State of California.

This Subcommittee has been incredibly responsive to the needs of the warfighter. From procurement of the best weapons to funding health programs that affect the lives of countless members of our military and their families, the Defense Appropriations Subcommittee looks beyond the budget documents and always considers what is best for the women and men in uniform. I ask that you once again take that approach. Please consider the Navy's unfunded priority this year of an additional 12 F/A-18 aircraft.

Once again, I thank the Subcommittee for its work, and your time today. I look forward to working with you to ensure that our Nation retains the strongest military in the world, and that our servicemen and women have the finest resources available.

Thank you.

Mr. FRELINGHUYSEN. Mr. Lieu, thank you for being with us. Obviously, the F-18, in all of its capabilities, we are certainly supportive of the program, and your advocacy here today reinforces that. I want to thank you for being with us.

Mr. LIEU. Thank you. And I will submit my written testimony as well.

Mr. FRELINGHUYSEN. Absolutely. Thank you so much.

Mr. LIEU. Thank you.

Mr. FRELINGHUYSEN. Mr. Visclosky.

Mr. VISCLOSKY. No. No.

Mr. FRELINGHUYSEN. Okay.

Mr. FRELINGHUYSEN. Pleased to welcome Congressman Denny Heck from Washington State. Thank you very much for being with us. We got off to an early start, but we are very glad to have you here.

SUMMARY STATEMENT OF CONGRESSMAN HECK

Mr. HECK. Thank you, Chairman Frelinghuysen and Ranking Member Visclosky. The honor is indeed all mine, sir. I appreciate the opportunity to testify here today about some of our national defense priorities very much.

I have the honor to represent Joint Base Lewis-McChord, which, as you know, is one of the largest military installations in America. It is in the vicinity of Interstate 5. In fact, it straddles it. This highway is the most heavily traveled north-south freight corridor in the entire State of Washington. It carries in excess of 145,000 vehicles every day.

Nearly 80 percent of the traffic to and from JBLM needs and relies on Interstate 5. Local travelers in neighboring cities have no other option except to use I-5 as its surface street. When incidents occur, it can take hours to recover. Backups of 6 miles or more beginning at 6 a.m. are, frankly, not rare. They are almost the norm.

This just isn't happening in my district. It is not singular to the 10th Congressional District of Washington State issue. Floridians are stuck on Florida State Route 85, and we all know that people here on the beltway are stuck on Interstate 95, 395, 495. And the almost daily question has become, "What is the holdup?"

The truth is military installations are still adapting to base realignment and short-term growth caused by troops passing through before being deployed. Installation growth has had a significant effect on regional transportation, particularly when an installation is located in or near an urban area. Even acknowledging the potential for drawdowns on military bases, those reductions would not nearly come close to alleviating the problem.

Surrounding roads—and this is key—play an important role in preserving military readiness. Our Armed Forces need to instantly deploy, and we need functional roads in order for that to happen. If military personnel are caught in a jam, efficiency goes out the door. And the domino effect of delays due to congestion literally impairs our national security.

This leaves not only military activities on bases stranded, but also commerce and the community stranded as well. When we don't have reliable roadways, economic activity comes to a screeching halt, literally and figuratively. Goods can't move. Companies lose

money. The cascading inaction affects productivity and balance sheets, and it puts strains on business and workers alike.

To be clear, the military is not to blame for this. In fact, based on the direction of this committee, they have done a lot to help mitigate the problem. They know the opportunity costs involved when their soldiers and civilian workers are stuck in traffic and can't be where they need to be. Bases have come up with innovative approaches to ease the pain. But the problem remains severe and unavoidable without more investment. It is a bandaid over a wound that needs stitches.

Let's heal this mess by upgrading the transportation infrastructure around these bases as a part of the fiscal year 2016 defense appropriations bill. And in that regard, sir, I respectfully request that the 2016 bill provide \$25 million in appropriated funds for transportation infrastructure improvements associated with congestion mitigation in urban areas related to the 2005 BRAC recommendations.

As you may recall, there is precedent. The defense appropriations bill for 2011 appropriated \$300 million just for these purposes, and those funds were expended through the Office of Economic Adjustment.

Mr. Chairman, while I have been sitting here with you this morning talking, people that were in gridlock when I began probably haven't budged an inch. They are already late for work or their assignment on base. They might still be in gridlock even when this hearing ends.

Every one of us is all too familiar with the feeling, the horrible feeling of approaching an unexpected slow crawl. I know that feeling very well as I approach Joint Base Lewis-McChord. We can do better and we can do more.

Finally, I would just like to thank this committee. I was here almost exactly a year ago, and I asked for your help to finish school construction on bases where they were dilapidated. Within a few months, we will strike ground, break ground on Joint Base Lewis-McChord to build a new elementary school that serves predominantly special needs students. You did that. On behalf of my community and the parents of those children, I thank you very much.

And with equal fervor, I urge you to favorably consider the request I brought for you today. Thank you, sir.

[The written statement of Congressman Heck follows:]

TESTIMONY

CONGRESSMAN DENNY HECK (WA-10)

“National Defense Priorities from Members for the FY 2016 Defense Appropriations Bill”

April 15, 2014

House Appropriations Committee – Subcommittee on Defense

SUBJECT: The need for transportation improvement programs in and around military installations impacted by 2005 round of Defense Base Closure and Realignment Commission.

Thank you Chairman Frelinghuysen, Ranking Member Visclosky, and other members of this subcommittee for allowing me to testify today about national defense priorities for the upcoming fiscal year.

I represent Joint Base Lewis-McChord, one of the largest military installations in the country. In the vicinity of JBLM is Interstate-5. This highway is the most heavily traveled north-south freight corridor in the state of Washington, carrying 145,000 vehicles per day. Nearly 80 percent of traffic to and from JBLM relies on I-5. Local travelers in neighboring cities have no other option except to use I-5 as an arterial. When incidents occur, it can take hours to recover. Backups of six miles or more starting at 6 a.m. are not rare, rather they have come to be expected.

This isn't just happening in my district. Floridians are stuck on Florida's State Route 85. People here in the beltway are stuck on Interstate 95, 395 and 495. The almost daily question has become: "What is the hold up?"

The truth is military installations are still adapting to base realignment, and short-term growth caused by troops passing through before being deployed. Installation growth has had a significant effect on regional transportation, particularly when an installation is located in or near an urban area. Even acknowledging the potential for drawdowns on military bases, those reductions would not nearly come close to alleviating the problem.

Surrounding roads play an important role in preserving military readiness. Our armed forces need to instantly deploy and we need functional roads in order to do that. If military personnel are caught in a jam, efficiency goes out the door. The domino effect of delays due to congestion impairs our national security.

This leaves not only military activities on base stranded, but also commerce in the community stranded as well. When we don't have a reliable roadway, economic activity halts. Goods can't move and companies lose money. This cascading inaction affects productivity and balance sheets, putting strain on business owners and workers alike.

To be clear, the military is not to blame for this. In fact, based on the direction of this committee, they've done a lot to help mitigate the problem. They know the opportunity costs involved when their soldiers and civilian workers are stuck in traffic and can't be where they need to be. Bases have come up with innovative approaches to ease the pain, but the problem remains severe and unavoidable without more investment. It is a Band-Aid over a wound that needs stitches.

Let's heal this mess by upgrading the transportation infrastructure around these bases as part of the FY16 Defense Appropriations Bill. I respectfully request that the 2016 bill provide \$25 million in appropriated funds for transportation infrastructure improvements associated with congestion mitigation in urban areas related to 2005 BRAC recommendations.

As you may recall, the defense appropriations bill for 2011 appropriated \$300 million for these purposes. These funds were available through the Office of Economic Adjustment.

Mr. Chairman, while I've been sitting here talking to you today, people that were in gridlock when I began speaking have probably barely budged. They're already late to work or their assignment. They might still be in gridlock when this hearing ends.

We are all too familiar with the horrible feeling of approaching an unexpected slow crawl on the road. But when this affects our military's ability to get to base, do the job, and be ready for anything, that is when we can't just sit and wait for it to get better. We must do more.

Finally, I'd just like to thank you for listening to me at this time last year when I made a similar request to finish improvements to public schools located on military installations. I truly appreciate your attention to that important issue and your work to make that possible.

Thank you for your time.

Mr. FRELINGHUYSEN. Well, thank you, Mr. Heck. And thank you for remembering that. And I do remember you coming before the committee last year and telling us what a deplorable situation the schools were in. I mean, that is not the sort of optic we want to have identified with the education facilities of some very key young people.

Let me say, the committee, we don't believe in gridlock here. We actually, as you say, we get some things done, and we are highly appreciative of your advocacy.

First of all, let me salute the good work of the Joint Base Lewis-McChord. I have been on Interstate 5, and it is congested. It has been a few years since I have been out there. But let me salute the work of the men and women who come out of that joint base that have done so much to protect our freedoms around the world. And we will take under consideration your request for \$25 million to see what we can do to maybe make the infrastructure, assure better access for the surrounding communities, as well as people onto the joint base.

Mr. HECK. Thank you, sir. Joint Base Lewis-McChord, FYI, is the most requested posting in the entire armed services, even more so, I am told, than bases in places like Hawaii. I would invite you to come back. I would invite you both to come back out.

Mr. FRELINGHUYSEN. Look forward to it.

Mr. VISCLOSKY. Chairman.

Mr. FRELINGHUYSEN. Yes, Mr. Visclosky.

Mr. VISCLOSKY. I would just interject, thank you for thanking the committee. It doesn't always happen, but it was the right thing to do, so it was the easy thing to do.

I would agree with you on the need of infrastructure. We had a Naval Reserve center in Gary, Indiana, on the largest body of freshwater on the planet Earth. That Naval Reserve base closed because the Navy could get very little equipment under the bridge on Lake Street in Gary, Indiana. And ultimately that facility was closed because of infrastructure within the city itself.

So appreciate your concern, and we will do our best.

Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you very much, Mr. Heck.

And may I thank the members of the committee, Mr. Graves, for being here, Judge Carter, Mr. Womack, Ms. Kaptur, and Mr. Ruppersberger.

People often ask why we have this opportunity, and it actually gives people an opportunity to sort of lay down some of the issues confronting either their military base or their support for a local or national program. It is an opportunity for people to vent and advocate, and so we are pleased to provide this.

It does surprise me, although this may instigate something for next year, how few people take advantage of this rather public opportunity to demonstrate their support for a particular military platform or for their military base. But I think it is a good opportunity for us to listen and learn. So really appreciate your taking time out of your busy schedules to be here.

Pete and I would definitely be here. But to have you here, we are blessed.

Mr. VISCLOSKY. I appreciate the Members' attendance as well, and would point out additionally that the idea of holding a Members-only hearing, which was a matter of course many years ago, was a very good one from an institutional standpoint as well, to allow Members, particularly those who have not served in the institution for a long period of time, knowledge of how we interact with them. And the fact is they can have input into the appropriations process. Too often it has been, I think, observed as an insular process. That is certainly not the case with the Defense Subcommittee.

But do appreciate the great attendance today, because that is not the norm usually.

Ms. KAPTUR. I would observe that it is still——

Mr. FRELINGHUYSEN. Ms. Kaptur, you have got to use your microphone if you want to be on the record here.

Ms. KAPTUR. This is not a terribly serious comment, but notice which end of the aisle is here, this part of the bench.

Mr. FRELINGHUYSEN. Well, we know your tenure in Congress has been distinguished and for many years.

I would just like to point out we did try earlier this year, even though it wasn't in the public arena, many of us had an opportunity to meet with, I think, the 13 or 14 new Members of Congress that came in, both Republicans, Democrats who have served in the military and sort of hear what they had on their minds. For those of you who had the chance to find time in their schedule, it was most interesting to hear, including one of our Members who is a member of the Special Forces, just to get their take on their view of our defense posture and some of the things that the Department of Defense ought to be doing. It is a very interesting perspective, very valuable perspective.

So I guess we are going to take a short recess until our next Member comes.

Mr. CARTER of Texas. Mr. Chairman.

Mr. FRELINGHUYSEN. Jump in.

Mr. CARTER of Texas. I think that the appropriations process is the most misunderstood process in the entire Congress. I think that when you talk to people about appropriations, Members of Congress, it is amazing how little they know about how this works. I don't know what we do to fix that. And when I was in the leadership it was just a dive room vacancy in the understanding of the appropriations process. I don't know how we fix that.

Mr. WOMACK. There might be an explanation for some of that. Just calculate how many years in Congress half of Congress has been here——

Mr. CARTER of Texas. That is true.

Mr. WOMACK [continuing]. Okay, or more than half, and how much regular order have they seen in that short period of time.

Mr. RUPPERSBERGER. Yeah. That is a good point.

Mr. WOMACK. Zero. Zero.

So when you are living by CRs, you don't really—I mean, they think that CRs are the norm. That is all they ever knew.

I think you are absolutely right. And I have looked for reasons to try to figure out how do we fix that, and the only way you are going to fix that is to get back to regular order.

Mr. FRELINGHUYSEN. And it is interesting—I guess I could say this into the record—we look after the needs of all Members of Congress, irregardless of political persuasion, and we look after members of the committee, and we are hugely accommodating. But this is another opportunity for people to sort of come forward, front and center, to be an advocate for their congressional district.

Mr. FRELINGHUYSEN. Congressman Jeff Miller, thanks very much for being with us.

Mr. MILLER. Thank you very much, Mr. Chairman.

Mr. FRELINGHUYSEN. We warmed up the room in the brief absence we had between you and the last witness, but we are very pleased to have you here.

SUMMARY STATEMENT OF CONGRESSMAN MILLER

Mr. MILLER. Thank you very much, Members. It is a pleasure to be here with you. I appreciate the opportunity to be able to testify about a critical issue to our national security, and in this case critical to the preventative care for our sailors and our airmen.

The Navy's basic research on human resilience and performance in high altitude and undersea environments is of vital importance. To enable our continued supremacy of our U.S. forces in the 21st century and to prevent serious illness in later years identified to be caused by prolonged work in the related domains of aviation and diving, it is critical that the Navy's research into the effects of extended exposure to extreme pressure environments is fully funded.

In the Navy budget, under the warfighter sustainment program element, the Office of Naval Research's medical technologies program highlights this research as a requirement in support of such mission areas. Unfortunately, funding for this program is insufficient and does not utilize DOD's premier aeromedical and environmental health research facility, which is the Naval Medical Research Unit in Dayton, Ohio.

Recent research has shown that the low air pressure under which high-altitude pilots work and the resulting high concentrations of oxygen that they breathe leads to decompression sickness, including a type known as neurologic decompression sickness. The research cites such symptoms in pilots and divers as temporary and permanent cognitive decline, slowed thought process, and unresponsiveness beyond those due to the natural aging process.

Of grave concern to me is that the effects of these illnesses are not too different from what researchers are now finding in traumatic brain injury victims. Our military needs to fund more basic research into the causes and methods of preventing these illnesses in our pilots, deep sea sailors, and special operators that are exposed to prolonged periods of extreme pressure conditions.

There is a promising side to this issue. In 2005, the Defense Base Closure and Realignment Commission directed the establishment of the Naval Medical Research Unit in Dayton, Ohio, and its Joint Center of Excellence for Aeromedical Research at Wright-Patterson Air Force Base.

Since that time, DOD has spent more than \$40 billion to develop a world-class research facility supported by a collection of state-of-the-art equipment found at no other location around the world. This unique assortment of capabilities enables this facility to tran-

sition validated knowledge and effective technologies to the warfighter that will mitigate and prevent the effects of high-altitude and undersea environments.

However, since the creation of this incredible facility, the Navy has been unable to fund critical research that would capitalize on DOD's investment and to maximize research into established Navy and Air Force requirements.

I think you will agree that funding the efficient utilization of this facility in support of established Air Force and Navy requirements is good for our sailors, our airmen, our veterans, and of course the taxpayers of this country.

As you begin your work on the fiscal year 2016 defense appropriation bill, I respectfully request that you provide an additional \$8.9 million for warfighter sustainment medical technologies program in the Navy budget. All moneys placed on contract will be done so through a robust competition and will increase utilization of research facilities by addressing requirements currently established in the fiscal year 2016 President's budget.

I want to thank you, Mr. Chairman, the ranking member, Mr. Visclosky, for having this hearing, and I urge you and the members of the subcommittee to look closely at this issue during your discussion. So I appreciate the chance to visit with you this morning, and I would be willing to answer any questions in the future should they arise.

[The written statement of Congressman Miller follows:]

**Congressman Jeff Miller
Warfighter Safety Initiative Testimony to HAC-D
April 15, 2015**

GOOD MORNING, MR. CHAIRMAN. THANK YOU FOR PROVIDING ME AND OTHER MEMBERS OF THE HOUSE WITH THE OPPORTUNITY TO TESTIFY TO THE SUBCOMMITTEE ON ISSUES CRITICAL TO OUR NATIONAL SECURITY, AND IN THIS CASE, CRITICAL TO THE PREVENTIVE CARE OF OUR SAILORS AND AIRMEN.

THE NAVY'S BASIC RESEARCH ON HUMAN RESILIENCE AND PERFORMANCE IN HIGH ALTITUDE AND UNDERSEA ENVIRONMENTS IS OF VITAL IMPORTANCE.

TO ENABLE THE CONTINUED SUPREMACY OF U.S. FORCES IN THE 21ST CENTURY AND TO PREVENT SERIOUS ILLNESS IN LATER YEARS IDENTIFIED TO BE CAUSED BY PROLONGED WORK IN THE RELATED DOMAINS OF AVIATION AND DIVING, IT IS CRITICAL THAT THE NAVY'S RESEARCH INTO THE EFFECTS OF EXTENDED EXPOSURE TO EXTREME PRESSURE ENVIRONMENTS IS FULLY FUNDED.

IN THE NAVY BUDGET UNDER THE WARFIGHTER SUSTAINMENT PROGRAM ELEMENT, THE OFFICE OF NAVAL RESEARCH'S MEDICAL TECHNOLOGIES PROGRAM HIGHLIGHTS THIS

RESEARCH AS A REQUIREMENT IN SUPPORT OF SUCH MISSION AREAS.

UNFORTUNATELY, FUNDING FOR THIS RESEARCH IS INSUFFICIENT AND DOES NOT UTILIZE D.O.D.'S PREMIER AEROMEDICAL AND ENVIRONMENTAL HEALTH RESEARCH FACILITY, THE NAVAL MEDICAL RESEARCH UNIT IN DAYTON, OHIO.

RECENT RESEARCH HAS SHOWN THAT THE LOW AIR PRESSURE UNDER WHICH HIGH-ALTITUDE PILOTS WORK AND THE RESULTING HIGH CONCENTRATIONS OF OXYGEN THEY BREATHE LEADS TO DECOMPRESSION SICKNESS, INCLUDING A TYPE KNOWN AS NEUROLOGIC DECOMPRESSION SICKNESS.

THE RESEARCH CITES SUCH SYMPTOMS IN PILOTS AND DIVERS AS TEMPORARY AND PERMANENT COGNITIVE DECLINE, SLOWED THOUGHT PROCESS, AND UNRESPONSIVENESS BEYOND THOSE DUE TO THE NATURAL AGING PROCESS.

OF GRAVE CONCERN TO ME IS THAT THE EFFECTS OF THESE ILLNESSES ARE NOT TOO DIFFERENT FROM WHAT RESEARCHERS ARE FINDING IN TRAUMATIC BRAIN INJURY VICTIMS.

OUR MILITARY NEEDS TO FUND MORE BASIC RESEARCH INTO THE CAUSES AND METHODS OF PREVENTING THESE ILLNESSES IN OUR PILOTS, DEEP SEA SAILORS, AND SPECIAL OPERATORS

EXPOSED TO PROLONGED PERIODS OF EXTREME PRESSURE CONDITIONS.

THERE IS A PROMISING SIDE TO THIS ISSUE.

IN 2005, THE DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION DIRECTED THE ESTABLISHMENT OF THE NAVAL MEDICAL RESEARCH UNIT IN DAYTON AND ITS JOINT CENTER OF EXCELLENCE FOR AEROMEDICAL RESEARCH AT WRIGHT PATTERSON AIR FORCE BASE.

SINCE THAT TIME, DOD HAS SPENT MORE THAN \$40 MILLION TO DEVELOP A WORLD-CLASS RESEARCH FACILITY SUPPORTED BY A COLLECTION OF STATE-OF-THE-ART EQUIPMENT FOUND AT NO OTHER LOCATION ANYWHERE IN THE WORLD.

THIS UNIQUE ASSORTMENT OF CAPABILITIES ENABLES THIS FACILITY TO TRANSITION VALIDATED KNOWLEDGE AND EFFECTIVE TECHNOLOGIES TO THE WARFIGHTER THAT WILL MITIGATE AND PREVENT THE EFFECTS OF HIGH ALTITUDE AND UNDERSEA ENVIRONMENTS.

HOWEVER, SINCE THE CREATION OF THIS INCREDIBLE FACILITY, THE NAVY HAS BEEN UNABLE TO FUND CRITICAL RESEARCH THAT WOULD CAPITALIZE ON D.O.D.'S INVESTMENT AND MAXIMIZE RESEARCH INTO ESTABLISHED NAVY AND AIR FORCE REQUIREMENTS.

I THINK YOU'LL AGREE THAT FUNDING THE EFFICIENT UTILIZATION OF THIS FACILITY IN SUPPORT OF ESTABLISHED AIR FORCE AND NAVY REQUIREMENTS IS GOOD FOR OUR SAILORS, AIRMEN, VETERANS, AND THE TAXPAYER.

AS YOU BEGIN WORK ON THE FISCAL YEAR 2016 DEFENSE APPROPRIATIONS BILL, I RESPECTFULLY REQUEST THAT YOU PROVIDE AN ADDITIONAL \$8.9 MILLION FOR WARFIGHTER SUSTAINMENT, MEDICAL TECHNOLOGIES PROGRAM, IN THE NAVY BUDGET.

ALL MONIES PLACED ON CONTRACT WILL BE DONE SO THROUGH A ROBUST COMPETITION AND WILL INCREASE UTILIZATION OF RESEARCH FACILITIES BY ADDRESSING REQUIREMENTS CURRENTLY ESTABLISHED IN THE F.Y.16 PRESIDENT'S BUDGET.

I THANK YOU AND RANKING MEMBER VISCLOSKY FOR HAVING THIS HEARING AND I URGE YOU AND THE SUBCOMMITTEE TO LOOK CLOSELY AT THIS ISSUE DURING YOUR DISCUSSIONS.

THANK YOU VERY MUCH FOR YOUR TIME TODAY, AND I APPRECIATE THE OPPORTUNITY TO SHARE MY THOUGHTS ON THIS IMPORTANT RESEARCH WITH THE SUBCOMMITTEE.

Mr. FRELINGHUYSEN. Mr. Miller, thank you very much for being with us today. This is a huge issue. This is way beyond what we would call the normal stress. What our pilots and divers go through is a remarkable neurological and probably chemical reaction as they go through a variety of different degrees of elevation or submersion. I think your being here as a strong advocate for this is sort of a wake-up call, and it has been highly educative to me, let me put it that way. And I think this is something that we should be taking a close look at.

I did mention before you came in, we did have the Surgeon Generals of the Air Force, the Army, and the Navy come in yesterday for 2½ hours for testimony. And I sort of wish that we had had this as a question for Admiral Nathan and General Travis. But it is something that you have raised for our attention, and I think we are highly appreciative of your doing that.

Ms. Kaptur, I did hear the word "Ohio" too.

Ms. KAPTUR. Yes. Yes. I just wanted to assure the Congressman that coming from Ohio and being one of the advocates for Wright-Pat and the human performance program. Thank you for coming today. Thank you for coming before our subcommittee and expressing in very clear terms why this research is so very important.

And finally, after so many decades, we are paying attention to the impacts of this kind of heroism really on human health, both short term and long term. And all I can say, I kept thinking as I was listening to you, in my single flight on an F-16, the pressure and what happens to the body, frankly, I couldn't do that job. The average citizen has no idea of the physical impacts that some of these missions require of the individual.

And so thank you so very much for taking the time to come before us today and advocate for our airmen and our seamen. Thank you.

Mr. MILLER. O-H-I-O.

Ms. KAPTUR. Ohio.

Mr. FRELINGHUYSEN. All right. Thank you very much, Mr. Miller.

Mr. MILLER. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Pleased to welcome Congressman Bradley Byrne from Alabama. Thanks for being with us. I guess we are sort of doing this in order of arrival, even though we gave you a specific time.

Welcome. Thanks very much for taking time out of your busy schedule.

SUMMARY STATEMENT OF CONGRESSMAN BYRNE

Mr. BYRNE. Thank you, Mr. Chairman and Ranking Member Visclosky and distinguished members of the subcommittee. It is my pleasure to appear before you today to testify on two issues important to our national security, the Littoral Combat Ship program and the Joint High Speed Vessel program.

Since I appeared before this group last year, I have had the pleasure as a member of the Armed Services Committee to actually be on both of these vessels, not during construction, but as they have actually been deployed. So I am not just speaking from somebody that has been on those that have been under construction. I have actually been on them and talked to the people that are actu-

ally on those ships, manning those ships, and the people in the Navy that are so important to that program.

The LCS is an essential component of our fleet, and it is critical if the Navy is to support the Pentagon's pivot to the Asia-Pacific region, because these are shallow-draft vessels, they can get to places that they need to get to in that very important part of the world.

Despite what you may have heard, the LCS program is currently realizing substantial efficiencies and savings. Production is stable and costs have been reduced significantly. The LCS is easily the most affordable surface vessel in our fleet today. But the LCS is not just affordable, it is also highly capable.

Some of the LCS' loudest critics contend that the Navy has not effectively laid out its plans for the vessels. They have questions about the ship's survivability and lethality. These are important questions, but the Navy already has many of the answers. And although the survivability testing for the vessel would not officially wrap up until 2018, the Navy already understands how survivable and lethal the LCS is in different environments.

In fact, the Navy's Small Surface Combatant Task Force recently studied how the current LCS operates in certain environments and how additional capabilities would enhance its ability to operate in these areas. Secretary of the Navy Ray Mabus described this study as "exhaustive," and upon its completion Secretary of Defense Chuck Hagel agreed with the results. Secretary Hagel authorized the Navy to transition the LCS into a frigate, validating the need to build up the program from 32 ships to 52 ships.

Now, the first 32 of these ships will be needed to complete the mine countermeasures mission, which is vitally important to operations in the 5th Fleet and the 7th Fleet areas of responsibility. The remaining 20 frigates will be designed to carry out anti-surface and anti-sub missions. These ships remain essential to the Navy's ability to project power and provide greater interoperability with our allies. And there are a number of our allies that are looking at these vessels for themselves because they work so well.

Last month, in testimony before the Armed Services Committee that I serve on, Secretary Mabus said, quote, "Any change to the production rate of three LCS's per year will significantly impact the transition to the frigate," close quote. This is an obvious but frightening observation. It has become abundantly clear that delaying the production of the LCS would significantly reduce the size of our fleet and damage America's national security. In turn, this would force the Navy to cover the same geographic area with significantly fewer assets.

The LCS is the rare military program that has seen costs decrease over time. The costs in this program have gone down, not up. The LCS has adhered to stringent contractual and budgetary constraints and is locked into fixed-price contracts at a congressionally mandated cost cap. The LCS ships being built today are being built at an average of \$350 million per hull, well under the cost cap. Any further reductions would lead to cost increases and, more importantly, put the frigate program at significant cost and schedule risk. Reductions would also greatly impact the shipyards in

Alabama, my district, and in Wisconsin and the broader ship-building industrial base.

Because of these considerations, I ask the subcommittee to support the Navy's request and provide the funds necessary to procure three Littoral Combat Ships in this year's budget.

Next, I would like to share my support for the Joint High Speed Vessel, or the JHSV. The JHSV is a shallow-draft, high-speed catamaran used for the intra-theater support of personnel, equipment, and supplies. And I have talked to the Marine Corps extensively about the Joint High Speed Vessel. It is a very important vessel for them. It is a low-cost vessel that meets a lot of their needs.

It is the only Navy asset that combines high payload capacity with high speed, providing combatant commanders with a unique capability. In automotive terms, the vessel has been compared to a pickup truck. It is able to support a wide range of missions for all the services.

The JHSV has demonstrated the ability to transport military forces, as well as humanitarian relief, personnel, and material. Since delivery of the initial vessel, these ships have supported a wide range of operations around the globe, including assisting in recovery operations after the Indian earthquake and the tsunami in 2004 and the Japanese earthquake and tsunami in 2011.

As we meet, the USNS Spearhead is completing her second deployment in the 6th Fleet area of responsibility to support operations in EUCOM and AFRICOM. She is scheduled to make her second deployment to SOUTHCOM later this year.

Clearly, this vessel is effectively filling a critical gap.

The Department of Defense places a premium on the ability of U.S. military forces to deploy quickly to a full spectrum of engagements. In addition, the Department values the ability of U.S. Forces to debark and embark in a wide range of port environments, from modern to, in some cases, austere. The Joint High Speed Vessel has demonstrated the ability to effectively support these needs.

The Joint High Speed Vessel is currently in serial production with a stable and highly trained workforce. We are benefitting from the efficiencies gained through the construction of the initial six vessels. In order to ensure the capability to build these ships and maintain the affordable price, we need to keep the production line open.

Unfortunately, without further procurement in fiscal year 2016, this line will close. Like the LCS, the Joint High Speed Vessel program provides the Navy with a very affordable and capable ship at roughly \$180 million per ship. I know that sounds like a lot of money, but a DDG costs \$1.6 billion. So at \$180 million per ship, the Joint High Speed Vessel is a fraction of what other shipbuildings cost.

The program has clearly matured in what can only be considered efficient serial production. We shouldn't let that go to waste.

Thank you very much for your time today. I appreciate the opportunity to share my thoughts on these two very valuable ships before the subcommittee. I would be happy to answer any questions.

[The written statement of Congressman Byrne follows:]

**STATEMENT OF
BRADLEY BYRNE (AL-1)
MEMBER OF CONGRESS
BEFORE THE
HOUSE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON DEFENSE
ON
16 APRIL 2015**

INTRODUCTION

Chairman Frelinghuysen, Ranking Member Visclosky, distinguished members of the committee; it is my pleasure to appear before you today to testify on two issues important to our national security: the Department of Defense's Littoral Combat Ship program and Joint High Speed Vessel program.

LITTORAL COMBAT SHIP

The Littoral Combat Ship, or LCS, is essential to missions in the world's littorals, and it is critical if the Navy is to support the Department's pivot to the Asia-Pacific region.

Much of the concern surrounding the LCS today is focused on issues other than the sea frame. In fact, the LCS program is currently realizing substantial efficiencies and savings. Production is stable and costs have reduced significantly due to the learning that has been achieved on the ships built to date. The LCS is easily the most affordable surface vessel

in our fleet today, but the LCS is not just affordable, it is also very capable.

Some of the LCS's largest critics contend that the Navy has not effectively laid out its plans for the vessel. They have questions about the ships survivability and lethality.

These are important questions, many of which the Navy already knows the answers to. And although the survivability testing for the vessel will not officially be completed until 2018, this does not mean the Navy does not understand how survivable or lethal the LCS is in different threat environments. In fact, the Navy's Small Surface Combatant Task Force recently studied in great detail how the current LCS operates in certain environments and how additional capabilities added to the platform would enhance its ability to operate in these areas.

Secretary of the Navy Ray Mabus described this study as “exhaustive,” and upon its completion, Secretary of Defense Chuck Hagel agreed with the results and authorized the Navy to proceed with its plan to transition the LCS into the Frigate, validating the need to build out the program to 52 ships.

32 of these ships will be needed to complete the mine counter measures mission, which is vitally important to operations in the Fifth Fleet and Seventh Fleet areas of operation. The remaining 20 Frigates will be designed to carry out anti-surface and anti-sub missions. These ships remain essential to the Navy’s ability to project power by providing forward deployed presence and greater interoperability with our allies.

Last month, in testimony before the Armed Services Committee, Secretary Mabus said that, “any change to the production rate of three LCS per year [for the next three fiscal years] will significantly impact the transition to the Frigate.” This is an obvious but frightening

observation. It's become abundantly clear that delaying the production of the LCS would significantly reduce the size of our fleet and damage America's national security, forcing the Navy to cover the same geographic area with significantly fewer assets.

The LCS is the rare military program that has seen costs decrease instead of increase over time. The LCS has adhered to stringent contractual and budgetary constraints and is locked into fixed price contracts and a congressionally mandated cost cap. Littoral Combat Ships are being built today at an average cost of \$350 million per hull, well under the Cost Cap and at half the cost of the first ships of class.

Any further reductions will lead to cost increases and, more importantly, put the Frigate Program at significant cost and schedule risk.

Reductions will also greatly impact the shipyards in Alabama and Wisconsin, and the broader shipbuilding industrial base. Because of these considerations, I ask the Subcommittee to support the President's

budget and provide the funds necessary to procure three Littoral Combat Ships in this year's budget.

JOINT HIGH SPEED VESSEL

Next, I'd like to share my support for the Joint High Speed Vessel, or JHSV. The JHSV is a shallow draft, high-speed catamaran used for the intra-theater transport of personnel, equipment and supplies, providing access to shallow water and often times austere off load points. The JHSV is the only Navy asset that combines high-payload capacity with high-speed, providing combatant commanders a unique sealift mobility capability. In automotive terms, the vessel has been compared to a pickup truck – able to support a wide range of missions for all the services.

The JHSV has demonstrated the ability to transport military forces, as well as humanitarian relief personnel and materiel. Since delivery of the initial JHSV, these ships have deployed globally and supported a wide

range of operations, including supporting disaster recovery operations after the Indian Ocean earthquake and Tsunami in 2004 and the Japanese earthquake and Tsunami in 2011. As we meet, USNS Spearhead is completing her second deployment to the 6th Fleet Area of Responsibility to support operations in EUCOM and AFRICOM. She is scheduled to make her second deployment to SOUTHCOM later this year. Clearly, the JHSV is effectively filling a critical gap.

The Department of Defense places a premium on the ability of U.S. military forces to deploy quickly to a full spectrum of engagements. In addition, the Department values the ability of U.S. forces to debark and embark in a wide range of port environments, from modern to austere. The JHSV has demonstrated the ability to effectively support both of these needs.

Furthermore, the Navy, Marine Corps and Special Forces have all expressed interest in increasing the capability of the JHSV to support

additional missions. Studies are currently underway to accommodate the MV-22 Osprey and to provide increased capability to support Navy/Marine Corps sea-basing requirements.

The JHSV is currently in serial production with a stable and highly trained work force; we are benefiting from the efficiencies gained through the construction of the initial six vessels. In order to ensure the capability to build these ships to meet Fleet demand, and maintain the affordable price, we need to keep the production line open.

Unfortunately, without further procurement in FY16, the line will close.

Like the LCS, the JHSV program provides the Navy with a very affordable and capable ship. At roughly \$180M per ship, the JHSV costs a fraction of what other shipbuilding programs cost, and with production steaming along, new JHSVs are rolling off the line every six months. The program has clearly matured into what can only be

considered efficient, serial production. We shouldn't let that go to waste.

Thank you very much for your time today. I appreciate the opportunity to share my thoughts on these two valuable ships with the Subcommittee.

Mr. FRELINGHUYSEN. Mr. Byrne, thank you very much for your testimony. The committee welcomes it and your strong advocacy for the Littoral Combat Ship.

As we have the smallest Navy in our history, we need every ship. It has amazing capabilities. And we obviously on this committee recognize your good work on the Armed Services Committee and the need for more rather than less just because of tyranny of distance, as you mention, to the Pacific, and also your advocacy for the Joint High Speed Vessel, which is a Navy-Marine combination platform, which is also very badly needed.

So we will do our level best to be of support of both of these programs, understanding that we live within some restrictions of the Budget Control Act.

Mr. BYRNE. Yes, sir, Mr. Chairman. I certainly want to do my part to help with that as well.

Mr. FRELINGHUYSEN. Absolutely. Look forward to it.

Mr. VISCLOSKEY.

Mr. VISCLOSKEY. And just mentioned that General Rodriguez, when he was testifying before us, suggested that there is a significant need—and you mentioned AFRICOM——

Mr. BYRNE. Yes, sir.

Mr. VISCLOSKEY [continuing]. For the Joint Vessel. Thank you for your testimony. Because we do have a number of Members here, I would point out that besides the water, we do have coffee available.

Thank you very much.

Mr. BYRNE. Yes, sir.

Mr. FRELINGHUYSEN. Thank you very much.

Mr. BYRNE. Thank you, sir.

Mr. FRELINGHUYSEN. Pleased to recognize Congressman Hank Johnson from Georgia. Welcome. Welcome back. You were here last year.

SUMMARY STATEMENT OF CONGRESSMAN JOHNSON

Mr. JOHNSON. Thank you. It is good to be back. Thank you for having me.

Members of the subcommittee, Chairman, Ranking Member, thank you for the opportunity to testify in support of the Historically Black Colleges and Universities and Minority-Serving Institution Program, the HBCU/MI Program. This program funds important Department of Defense research at HBCUs and MSIs around the country and is critical to our long-term national security.

This program provides valuable opportunities for students at these institutions to gain exposure to science, technology, engineering, and math research at DOD labs. It also helps to fill the void in our STEM workforce by creating a pipeline of talented researchers in cybersecurity, linguistics, and data modeling and analysis.

Mr. Chairman, HBCUs represent 3 percent of all 2- and 4-year colleges, but generate 25 percent of STEM bachelor degrees awarded to African Americans. But sadly, despite HBCU's strong track record of success, the Federal Government has cut STEM funding at these institutions in recent years.

Last year, this committee recognized the contributions of HBCUs to our STEM workforce and our economy and stood strong in the

face of attempts to cut funding for the HBCU/MI Program. I urge the committee to do so again this year as the fiscal year 2016 DOD budget comes up for debate before the committee and to fully fund the HBCU/MI Program at \$40 million. These funds would go a long way towards training students for futures in STEM, work-study programs, scholarships, and academic support initiatives for students of color.

The HBCU/MI Program already has strong ties with the Naval Air Force Warfare Center and several centers of battlefield capability enhancements. These partnerships have accelerated defense technology, research, and helped our Armed Forces solve complex technological challenges.

This program is critical to the cultivating of STEM talent necessary to meet our growing technological needs, and this valuable program is helping America meet the global defense challenges that face us.

Again, I want to thank you for the opportunity to express my support for this program. I respectfully urge the committee to reiterate its support for this program by fully funding it at \$40 million. And with that, I will yield back.

[The written statement of Congressman Johnson and Congressman Veasey follows:]

Members Hearing on Fiscal Year 2016 Appropriations
 Subcommittee on Defense
 Committee on Appropriations
 U.S. House of Representatives
 Wednesday, April 15, 2015

**Joint Testimony of the Honorable Hank Johnson (D-4th GA) and Marc Veasey (D-33rd TX)
 FY 2016 Request: \$40 Million for the Historically Black Colleges and Universities and
 Minority-Serving Institutions Program**

Chairman Frelinghuysen, Ranking Member Visclosky and Members of the Subcommittee, thank you for the opportunity to provide written testimony today. As members of the House Armed Services Committee, we have been intimately involved in overseeing the Department of Defense's mission, programs and activities. Thus, we feel especially well qualified to provide this statement in support of the Department of Defense (DOD) Historically Black Colleges and Universities and Minority Institutions (HBCU/MI) Program and the need to increase DOD research capabilities at Historically Black Colleges and Universities (HBCUs).

Funding for the HBCU/MI Program is a national security issue. Our nation and DOD, in particular, are in need of talent to fill jobs across the national security workforce. The opportunities and experiences that minority students gain from exposure to DOD research labs are critical. This program provides important science, technology, engineering and mathematics (STEM) research opportunities not just for HBCUs but for all Minority-Serving Institutions (MSIs), including Hispanic Serving Institutions and others.

HBCUs, in particular, provide enormous value for students, the nation, and the STEM workforce related to DOD priorities. HBCUs represent only 3 percent of all two- and four-year colleges and universities. However, HBCUs enroll 10 percent of all African American college students; confer 18 percent of bachelor's degrees awarded to African Americans; and generate 25 percent of the STEM bachelor's degrees awarded to African Americans. Moreover, HBCUs accomplish this while serving students with greater financial need; 71 percent of students who attend HBCUs today are low-income students who depend on federal Pell Grants for their education, a substantially greater share than the 40 percent of students at other nonprofit colleges and universities. Yet HBCUs educate students more cost effectively than their counterparts. In fact, the total cost of attendance at HBCUs is 30 percent lower, on average, than other nonprofit institutions.

Despite this demonstrated track record of success, the federal government has decreased STEM and research and infrastructure investments in HBCUs. The National Science Foundation reports that HBCUs received 10 percent *less* in federal science and engineering funding in FY 2012 compared to FY 2011. This is the second consecutive annual decrease in science and engineering obligations to HBCUs. Additionally, the HBCU/MI Program, funded under the Defense-wide Research, Development, Test and Evaluation account, has been cut dramatically from \$67 million in FY 2010 to \$34 million in FY 2015.

We thank the Subcommittee for rejecting the deep, 33 percent cut included in the Defense Department's FY 2015 budget request, and restoring most of the funding with a final FY 2015 appropriation of \$34 million for this activity. We also greatly appreciate the Subcommittee's action to reject the Defense Department's FY 2014 reprogramming request to divert \$5 million from the HBCU/MI appropriation to other activities within DOD.

FY 2016 Appropriations

Looking forward to FY 2016, we are again greatly disappointed that the Department of Defense continues to overlook this valuable program. The DOD FY 2016 budget request proposes once again to slash the HBCU/MI Program by 25 percent, from \$34 million to only \$26 million. The proposed disinvestment counters the DOD's goal to expand partnerships with HBCUs and develop new Centers of Excellence focused on DOD priorities. We ask this Subcommittee to not only reject this ill-advised budget cut, but also to increase the HBCU/MI Program appropriation to \$40 million to grow important research and partnership opportunities between the DOD and HBCUs.

Funding History of the HBCU/MI Program

HBCU/MI Funding History	
FY 2010	\$67 million
FY 2011	\$23 million
FY 2012	\$18 million
FY 2013	\$36 million
FY 2014	\$36 million
FY 2015	\$34 million
Administration FY 2016 Request	\$26 million
HBCU Coalition FY 2016 Request ¹	\$40 million

The DOD HBCU/MI Program plays a critical role in assisting HBCUs and Minority-Serving Institutions (MSIs) with cultivating and strengthening their scientific and technical infrastructure, capabilities and curriculum that are important to national defense. For example, the HBCU/MI Program provides support for research and collaboration with DOD facilities and personnel, research grants for further knowledge in the basic physical scientific and engineering disciplines through theoretical and empirical activities, and collaborative research that allows HBCU faculty and students to work directly with military laboratories in technical areas of interest to DOD, such as cyber security. Program funds also are used to support STEM education by funding scholarships, the STEM Prep Project with HBCUs (a program that provides academic training to young students for degrees in STEM fields), cooperative work/study opportunities, and other innovative academic programs that increase the number of students of color completing undergraduate and graduate STEM degrees.

The HBCU/MI Program has a strong research and educational collaboration with the Naval Air Warfare Center in support of the Avionic Enabling Technology Development for Manned and Unmanned Airborne Systems. The HBCU/MI Program also focuses on addressing the Army's research needs through new

¹ The HBCU Coalition consists of the United Negro College Fund, Thurgood Marshall College Fund, and the National Association for Equal Opportunity in Higher Education.

Centers of Excellence for Battlefield Capability Enhancements. These centers work with Army, industrial, and other academic partners to accelerate Army-relevant research to technology demonstration. In addition, these Centers of Excellence recruit, educate, and train outstanding students and post-doctoral researchers ready to enter fields in science and technology like cyber security, data-to-decisions and autonomy to solve 21st century defense challenges.

In FY 2011, four Centers of Excellence were established at the following institutions: Hampton University (Lower Atmospheric Research Using Lidar Remote Sensing); North Carolina A&T University (Nano to Continuum Multi-Scale Modeling Techniques and Analysis for Cementitious Materials Under Dynamic Loading); Delaware State University (Center for Advanced Algorithms); and Howard University (two centers one for Bayesian Imaging and Advanced Signal Processing and IED Detection Using GPR and another for Extracting Social Meaning From Linguistic Structures in African Languages).

The DOD HBCU/MI Program is a critical asset to cultivating STEM talent to meet our growing national technological and economic needs. HBCUs have already compiled an impeccable record of producing graduates majoring in STEM disciplines. By supporting research, research training, mentoring and other activities that help students enter the workforce in STEM, the DOD HBCU/MI Program is helping America meet the global challenges that face us.

Again, thank you for this opportunity to express our strong support for the DOD HBCU/MI Program.

Mr. FRELINGHUYSEN. Well, thank you, Mr. Johnson, for being here once again. And I think the support for this program has been bipartisan each and every year for the many years I have served on this committee, and we know it is a good investment. I think Members of Congress have been supportive of it. And we appreciate your being here as a strong advocate. We are not going to get anywhere in our society without STEM education, and that needs to be in the hands of everybody. And thank you very much for being here.

Mr. JOHNSON. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Pleased to recognize another one of our colleagues who serves in the Armed Services Committee, Congressman Paul Cook from California. Thanks for being with us. Thanks for your patience.

SUMMARY STATEMENT OF CONGRESSMAN COOK

Mr. COOK. Thank you, Mr. Chairman. Ranking Member Visclosky, Members of the subcommittee, once again thank you for the opportunity to testify today about an opportunity to improve Marine Corps tactical intelligence and support combat operations.

The Marine Corps Director of Intelligence published a document last September called the "Marine Corps Intelligence, Surveillance, and Reconnaissance Enterprise Plan for 2015–2020." This is a roadmap for improving the quality and timeliness of intelligence passed to Marine units conducting combat operations. This plan addresses the intelligence functions across all echelons of the Marine Corps, the Intelligence Community, and the Joint Force. It implements the principles of Expeditionary Force 21, the Marine Corps' capstone concept for America's Force in Readiness. And to quote the document, it is all about providing the right intelligence at the right place, at the right time.

We are facing emerging threats and existing threats modernizing at an unprecedented rate. Our enemies' ability to adapt to American capabilities requires a new American commitment to continue to lead technological development. We use this advantage to outfight, outthink our enemies, but we must also learn how to understand how to use this information that it provides, for integration of intelligence will equal battlefield success.

Integration of information is a high priority for the Marine Corps. It reduces the production timeline, produces greater understanding of the battle space, and supports interoperability by using open standards. Providing these smart maps, it allows the unit commanders and combatants to better understand intelligence data.

The Marine Corps requested \$13.2 million for the USMC Intelligence/Electronic Warfare Program fiscal year 2016, a 7 percent decrease compared to fiscal year 2015. Within that amount, \$1.8 million is for intelligence analyst systems support, which integrate these new tools into the intelligence analysis system family of programs.

I don't think that the fiscal year 2016 budget provides the Marine Corps adequate resources to implement this vision. I recognize the subcommittee has a very, very difficult task in front of it. As you craft your fiscal year 2016 bill, I am urging you to closely ex-

amine whether the Marines Corps Intelligence Community has sufficient resources to lead the way in the warfighting intelligence process.

I just want to add a couple of small comments. I think last year when I was here I told you that intelligence and what you learn before you go into battle is something that is personally important to me. I think I used the phrase that one time I was the most dangerous weapon in the world as a second lieutenant with a map and a compass.

Well, the world has changed, but there are always a lot of emerging threats. You know, Nimitz had a big advantage at Midway. You look at Enigma and Ultra, how they basically won the war for the Allies through the help of the British code breakers. And some of these things are going to change the battlefield.

And if you look at the Army and you look at the Marine Corps and you look at the number of casualties that they have had in the last 50 years, you know, a lot of it has been on these battlefields. Some of it has been from such archaic weapons as RPGs, still explosive devices that I was encountering in Vietnam in 1967 and 1968. This is something, I think, for all unit commanders, battle commanders, and all troops that go in harm's way, this is a program that I hope you will look very carefully at. And I thank you for your indulgence.

[The written statement of Congressman Cook follows:]

STATEMENT BY REPRESENTATIVE PAUL COOK
8th DISTRICT OF CALIFORNIA
BEFORE THE HOUSE APPROPRIATIONS SUBCOMMITTEE ON DEFENSE

Chairman Frelinghuysen, Ranking Member Visclosky, and Members of the Subcommittee. Thank you very much for the opportunity to testify today about an opportunity to improve Marine Corps tactical intelligence and support combat operations.

The Marine Corps' Director of Intelligence published a document last September called the Marine Corps Intelligence, Surveillance, and Reconnaissance Enterprise Plan for 2015-2020 which is a roadmap for improving the quality and timeliness of intelligence passed to Marine units conducting combat operations. The plan addresses the intelligence warfighting function across all echelons of the Marine Corps, the Intelligence Community, and the Joint Force. It implements the principles of Expeditionary Force 21 (the Marine Corps' capstone concept for America's Force in Readiness) and to quote the document, it's all about "providing the right intelligence at the right place and the right time."

I would like to share with the subcommittee a few of the observations made by the Marine Corps Director of Intelligence in this plan:

All around us we see that the currents of instability not only extend, but also accelerate. New enemies, state and non-state alike, will bring sophisticated new challenges to the field of conflict. The technology available to our opponents will continue to develop and proliferate at the pace of Moore's law, eroding our firepower dominance. Social transformations, enabled by the information age, move even faster than that. Opponents will challenge us through technological innovation, precision fires, information operations, deception, camouflage, and fighting in the vast urban slums that dot the littoral. To a higher degree than in the past the technological, social, political, and information context of warfare demands that we out-think our enemies as well as out-fight them.

Our Marine Corps operating concepts in this environment fundamentally rest on the battlefield understanding that our intelligence enterprise must provide. As a force, we've demonstrated our ability to finish the enemy. We must now invest in capabilities for finding and fixing. Raising the bar for our professional enterprise, making better investments in our people, and ensuring deeper integration of the intelligence warfighting function into planning and operations has never been more necessary for battlefield success. Right now is the time for us to rethink how we rise to that challenge.

The Marine Corps requested \$13.2 million for USMC Intelligence/Electronic Warfare Systems in fiscal year 2016, a decrease of 7 percent compared to the amount appropriated in fiscal year 2015. Within that amount, \$1.8 million is for Intelligence Analysis System Support which integrates advanced analytics tools into the Intelligence Analysis System Family of Systems.

A high priority for the Marine Corps is organizing and sharing of all-source spatial information products across the Marine Corps Intelligence organizations to reduce the production timeline, provide a greater understanding of the battlespace, and support interoperability through the use of open standards.

Providing warfighters with these “smart maps” will allow them to understand intelligence data better.

I don’t think that the fiscal year 2016 budget provides the Marine Corps Intelligence community the resources to implement this thoughtful and innovative vision. I recognize that the subcommittee has a very difficult task this year of balancing the needs of our military, who have spent more than a decade at war, with the need to restrain federal spending and reduce the national debt. As you craft your fiscal year 2016 bill, I am urging you to closely examine whether the Marine Corps Intelligence community has sufficient resources needed to transform its warfighting intelligence process using modern commercial tools and technologies.

I appreciate the warm welcome you’ve given me today and the opportunity for me to highlight for you a small but very important Marine Corps initiative. Thank you.

Mr. FRELINGHUYSEN. Mr. Cook, we will do our best. First of all, thank you for your distinguished military service. And may I say the committee has discussed—and there is obviously strong bipartisan support—more investments with ISR, you know, intelligence, reconnaissance and surveillance. I mean, that is really where we need to put some more money.

And we know—of course, I will be solicitous—the Marines are the tip of the spear, and when there is a problem around the world, you guys and gals are out there doing it. So this is something we will take a very close look at, see if we could do a little better than we have in the past.

Mr. COOK. Thank you, Mr. Chairman. I appreciate it.

Mr. FRELINGHUYSEN. Mr. Visclosky.

Mr. FRELINGHUYSEN. Mr. Carter from Georgia, welcome. Thank you for your patience.

SUMMARY STATEMENT OF CONGRESSMAN CARTER

Mr. CARTER of Georgia. Thank you, sir.

Thank you, Mr. Chairman, Members of the committee. I appreciate you all having me here today. And it is a great opportunity to share with you my concerns and priorities for the military installations within Georgia's First Congressional District.

It is an honor to represent a district which houses four major military installations, every branch of the military, and thousands of veterans who have served our country so honorably. With this unique military footprint, the district's defense elements are important not just to our State and region, but also to our Nation and America's interests around the world.

The First District is the proud home of Fort Stewart and Hunter Army Airfield. As the largest Army installation east of the Mississippi River and home to the "Rock of the Marne," the 3rd Infantry Division, Fort Stewart has a long and storied past as well as a vibrant role in today's national defense missions. Its level of significance and contributions continues to be a point of pride for the district, from spearheading of the events into Baghdad during Operation Iraqi Freedom to the deployment of soldiers to West Africa to help contain the Ebola outbreak. Today, as I speak, the 3rd ID is deployed to Afghanistan and Eastern Europe.

With the Army's planned manpower drawdowns, the maintenance of effective troop levels and mission sets at Fort Stewart has become a very concerning issue. I have heard discussions about reducing the total number of Army brigade combat teams nationwide and additional manpower cuts which could affect the 3rd ID by the reduction of one or even two BCTs. Such reductions would be a severe blow to the ability of the 3rd ID, Fort Stewart, and Hunter to provide their extraordinary capability to our national defense.

Fort Stewart and Hunter are uniquely equipped and strategically located to deliver a devastating blow to our adversaries worldwide. Let me touch on that very quickly. As you know, Fort Stewart and Hunter are located in the Savannah area, in the Coastal Empire Area near the Georgia ports, near the Savannah Port. That gives them quick access to be deployed, and that is very important and something that we are very proud of and we view as a great asset, not only to Hunter and Fort Stewart, but to our Nation as a whole.

It has vast training areas, modern facilities, and extraordinary network of intermodal deployment options through nearby ports and on-base and nearby airports.

For those reasons and more, I am requesting that the Army broaden its evaluation of Fort Stewart and Hunter with regard to BCT reductions. That should include factors such as cost efficiencies of operations and speed of deployment. Speed of deployment, what I was just talking about, by being that close to a major port like the Savannah Port, the regional training capabilities with other installations, and community support.

The regional capabilities and multiservice resources include another unique resource of national significance located in the First District, the Townsend Bombing Range. The Townsend Bombing Range is itself owned by the Marine Corps Air Station Beaufort and operated by the Georgia Air National Guard. Townsend is integral, not just to the State of Georgia, but also to the Air Force, Navy, Army, Air National Guard, and Marine Corps elements that use it.

Recently, I have learned that the Air National Guard headquarters has signed over the operational control of the Townsend Bombing Range to the USMC because of the apparent ANG inability to devote the necessary personnel resources for the expansion of the range.

While we are excited that the range has expanded to accommodate fifth-generation fighters like the F-35s, there are concerns about access to the range by other services and the provisions of adequate resources to address community concerns. Two counties in my district, Long and McIntosh, are in discussion with the Marine Corps about compensation for losses to their tax digests, and I am working with the Marine Corps to secure clarification on a number of related questions and issues.

Nearby Fort Stewart, my district proudly includes the Kings Bay Naval Submarine Base, located in Saint Mary's, Georgia. Kings Bay is the home port for the Atlantic ballistic missile submarine fleet. The fleet of submarines located at Kings Bay plays an indispensable role in our Nation's security as an element of the Nation's nuclear triad. It is currently home to eight Ohio-class submarines, six of which are ballistic missile submarines and two of which have been converted to guided missile submarines.

While these submarines fulfill a critical role in nuclear deterrence and readiness, they will soon be reaching the end of their expected timeline and the replacement will be needed. The last guided missile submarine is expected to be retired in 2028, leaving the Navy with a 60 percent reduction in its undersea strike capacity. Again, the last guided missile submarine is expected to be retired in 2028, leaving the Navy with a 60 percent reduction in its undersea strike capacity.

The first Ohio-class replacement submarine was originally scheduled to be procured in fiscal year 2019, but necessary deferments by the Navy has pushed back that timeline. This means that there may be a gap in the retirement of the Ohio-class boats and the procurement and production of its replacement class of boats. Because of this, I submitted a programmatic request in support of the De-

partment of Defense's budget line of \$1.391 billion for the Ohio replacement development in accordance with the President's budget.

The Virginia-class fast attack submarine is another major program with a critical role in defense of our Nation and our Navy. With the Ohio-class replacements on the horizon, Virginia-class submarines will continue to fulfill a larger role in the submarine fleet, especially with their life expectancy projected to reach as far as 2070.

The Virginia Payload Module is a cost-effective way to preserve our undersea strike capacity by adding expanded capabilities and armaments to the Virginia-class submarine fleet. With the rise in deployment and procurement of anti-access and aerial-denial systems, undersea strikes will, through necessity, assume a more dominant role in the future conflicts. It is through an expansion program like the Virginia Payload Module—

Mr. FRELINGHUYSEN. Mr. Carter, we are highly supportive of and recognize Georgia's incredible role for the Army, the Navy, and the Marines. I don't think there are many States that could match the capabilities of your warfighters who do some remarkable things on behalf of our country.

We want to make sure that we give all of our colleagues an opportunity to speak. But I want to assure you we are focused on the issue of end strength. We know your pride in your congressional district, the incredible work at Fort Stewart, Hunter, Kings Bay. I have been there. They do some incredible.

We are also focused on the submarine, the next generation of Ohio-class. You should know our committee has made that commitment in terms of technology. I think we are headed in the right direction. And with your advocacy, we will get across the finish line.

Mr. CARTER of Georgia. I apologize for taking so much time. But when you have got four military institutions in your district, it is all important. And I didn't get to mention the most important one, and I apologize.

Mr. FRELINGHUYSEN. Go right ahead. Just briefly now.

Mr. CARTER of Georgia. Moody Air Force Base located in Lowndes County, also in my district, home of the A-10s, I just have to mention to you how important that is and how important the A-10s are to our national security. And I just have to get that in, and I apologize.

Mr. FRELINGHUYSEN. You did it. There is no reason to apologize.

Mr. CARTER of Georgia. Okay.

Mr. FRELINGHUYSEN. Thank you, Mr. Carter.

Mr. CARTER of Georgia. Thank you very much.

Mr. FRELINGHUYSEN. You are a strong advocate. Your constituents can be proud of the good work you do on behalf of our country.

Mr. CARTER of Georgia. Okay. Thank you all very much.

Mr. FRELINGHUYSEN. Thank you.

[The written statement of Congressman Carter follows:]

Members' Day Testimony- Rep. Earl L. 'Buddy' Carter (1st District of Georgia)

Thank you for this opportunity to share with you my concerns and priorities for the military installations within Georgia's First Congressional District. It's an honor to represent a district which houses four major military installations, every branch of the military, and thousands of veterans who have served our country so honorably. With this unique military footprint, the district's defense elements are important not just to our state and region but to the nation and America's interests around the world.

The First District is the proud home of Ft. Stewart and Hunter Army Airfield. As the largest Army installation east of the Mississippi River and home to the "Rock of the Marne," the 3rd Infantry Division (ID), Ft. Stewart has a long and storied past as well as a vibrant role in today's national defense missions. Its level of significance and contributions continues to be a point of pride for the district, from spearheading of the advance into Baghdad during Operation Iraqi Freedom to the deployment of soldiers to West Africa to help contain the Ebola outbreak. Today, as I speak, the 3rd ID is deployed to Afghanistan and Eastern Europe.

With the Army's planned manpower drawdowns, the maintenance of effective troop levels and missions sets at Ft. Stewart has become a very concerning issue. I've heard discussions about reducing the total number of Army Brigade Combat Teams (BCTs) nationwide and additional manpower cuts which could affect the 3rd ID by the reduction of one or even two BCTs. Such reductions would be a severe blow to the ability of the 3rd ID, Ft. Stewart and Hunter to provide their extraordinary capability to our national defense.

Fort Stewart and Hunter are uniquely equipped and strategically located to deliver a devastating blow to our adversaries world-wide. It has vast training areas, modern facilities and

an extraordinary network of intermodal deployment options through nearby ports and on-base and nearby airports. For those reasons and more, I am requesting that the Army broaden its evaluation of Fort Stewart and Hunter with regard to BCT reductions. That should include factors such as cost efficiencies of operations and speed of deployment, the regional training capabilities with other installations, and community support.

The regional capabilities and multi-service resources include another unique resource of national significance located in the First District-- the Townsend Bombing Range (TBR). TBR is itself owned by the Marine Corps Air Station Beaufort and operated by the Georgia Air National Guard. Townsend is integral not just to the State of Georgia but also to the Air Force, Navy, Army, Air National Guard and Marine Corps elements that use it. Recently, I've learned that the Air National Guard (ANG) Headquarters has signed over the operational control of TBR to the USMC because of the apparent ANG inability to devote the necessary personnel resources for the expansion of the range. While we're excited that the range is expanding to accommodate 5th generation fighters like the F-35, there are concerns about access to the range by other services and the provision of adequate resources to address community concerns. Two counties in my district, Long and McIntosh, are in discussion with the USMC about compensation for losses to their tax digests, and I am working with the Marine Corps to secure clarification on a number of related questions and issues.

Nearby Fort Stewart, my district proudly includes the Kings Bay Naval Submarine Base, located in St. Mary's, Georgia. Kings Bay is the home port for the Atlantic ballistic missile submarine fleet. The fleet of submarines located at Kings Bay plays an indispensable role in our nation's security as an element of the nation's nuclear triad. It is currently home to 8 Ohio-class submarines, 6 of which are ballistic missile submarines and 2 of which have been converted to

guided missile submarines. While these submarines fulfill a critical role in nuclear deterrence and readiness, they will soon be reaching the end of their expected timeline and a replacement will be needed. The last guided missile submarine is expected to be retired in 2028, leaving the Navy with a 60% reduction in in undersea strike capacity.

The first Ohio-class replacement submarine was originally scheduled to be procured in FY2019, but necessary deferments by the Navy have pushed back that timeline. This means that there may be a gap in the retirement of the Ohio-class boats and the procurement and production of its replacement class of boats. Because of this, I submitted a programmatic request in support of the Department of Defense's budget line of \$1.391 billion for the Ohio replacement development in accordance with the President's budget.

The Virginia-class fast attack submarine is another major program with a critical role in the defense of our nation and our Navy. With the Ohio-class replacements on the horizon, Virginia-class submarines will continue to fulfill a larger role in the submarine fleet, especially with their life expectancy projected to reach as far as 2070. The Virginia Payload Module (VPM) is a cost-effective way to preserve our undersea strike capacity by adding expanded capabilities and armaments to the Virginia-class submarine fleet. With the rise in development and procurement of anti-access and area denial systems, undersea strikes will, through necessity, assume a more dominant role in future conflicts. It is through an expansion program, like the Virginia Payload Module, that we would be able to effectively maintain our capabilities while assuming cost savings until a guided missile replacement can enter service. The development of the Virginia Payload Module must continue to ensure that all Block 5 boats procured in Fiscal Years 2019 through 2023 can incorporate the capabilities of the expansion. This will help to ensure that we don't have a loss in undersea strike capabilities between the retirement of the

Ohio-class submarine and the procurement and construction of its replacement boat. It is for all these reasons discussed that I am requesting \$168 million for the development of the Virginia Payload Module.

Moody Air Force Base located in Lowndes County is currently home to the 23rd Wing of the Air Combat Command as well as the 94rd Air Ground Operations Wing. The A-10s, operated by the 23rd Wing, have been providing critical close air support (CAS) for our ground troops since they first entered service in the 1970s. It is this unique ability to perform effective close air support that has garnered the A-10 with high accolades in recent theatres of conflict, including Iraq and Afghanistan. As we speak, A-10s are flying CAS missions against ISIS advances in Iraq. In an article dated from January of this year, Iraqi News reported that “the aircraft sparked panic in the ranks of ISIS after bombing its elements and flying in space close to the ground.” This combination of abilities and its record of survivability against defensive platforms have earned it many supporters over the years and has elevated the airframe to a level of CAS that is unmatched by anything in our fleet of aircraft, including the untested F-35 in CAS missions.

Plain and simple, the A-10 is the only aircraft of its kind that can effectively accomplish its mission of protecting our troops while loitering around the battlefield for any additional support that may be needed by ground forces. The A-10 platforms provide a cost-effective and proven mission set that is fully capable of filling a role that no other airframe can accomplish to that degree. With the F-35 untested in the CAS role, we cannot afford to retire the A-10 airframes, especially with no how much life is left in the planes. That’s why I am requesting your support of full funding for the A-10 fleet in the Fiscal Year 2016 Defense Appropriations bill.

I also would like to discuss United States Marine Corps (USMC) procurement. The Marine Corps is a service that has learned to do more with less. Their procurement process is often different than the other services because they service a wide range of missions for a smaller force. The engineer equipment currently in use by Marine Corps operators is insufficient in today's wartime environments and doesn't provide adequate protection for those Marines who are in harm's way. In addition, the committee has previously recognized the need for versatile engineer vehicles, especially backhoes, for expeditionary forces and for homeland support missions. It is for this reason that I am requesting to provide an additional \$15 million for the USMC's Engineer and Other Equipment procurement account.

Lastly, I want to address improved camouflage systems and their role to the services in future conflicts. Current camouflage netting systems do not afford proper concealment against enemy threats, specifically short-wave infrared (SWIR) sensors. Research and development of next generation systems is essential for our military to maintain the edge against our adversaries in multiple environments. For that reason, I have requested report language encouraging development of new and improved camouflage netting systems that will thoroughly provide protection for our troops.

Thank you for this opportunity to provide testimony to the Subcommittee today. With our rich military heritage, these issues are extremely important to me and my constituents in the First District of Georgia. I'm very proud of the men and women who serve in our military and it is my intention, as I am sure it is yours, to do everything possible to ensure they continue to be the best equipped, most highly trained, and well cared for fighting force in the world. I appreciate your attention to these requests and thank you again for the time today.

Mr. FRELINGHUYSEN. Mr. Rothfus from Pennsylvania, thank you for your patience.

SUMMARY STATEMENT OF CONGRESSMAN ROTHFUS

Mr. ROTHFUS. Thank you, Mr. Chairman.

Chairman Frelinghuysen, Ranking Member Visclosky, and Members of the subcommittee, thank you for holding this hearing today and for receiving my testimony for the fiscal year 2016 defense authorization bill.

This morning, I would like to focus my remarks on the Army's Aviation Restructuring Initiative. As you know, this policy will result in the transfer of the National Guard Apache helicopters to the Active Component. Army officials have stated that this restructuring is necessary to generate savings and make the remaining aviation fleet more affordable. I have long opposed this plan and for the second year in a row asked, Mr. Chairman, savings at what cost?

Since September 11, 2001, the National Guard has repeatedly risen to the occasion. They have answered the call and fought bravely in Iraq and Afghanistan, and at the height of these wars nearly 50 percent of the Army's total force was a mix of reservists and members of the National Guard. The Pennsylvania National Guard alone contributed more 42,000 individual deployments. They have fought side by side with the Active Component, all while continuing to achieve their important mission here at home.

ARI will have devastating impacts on all the National Guard has achieved. By stripping the National Guard of its Apache helicopters, the Army is ensuring that the National Guard will be less combat ready and less able to provide operational depth. It will also deprive our Nation of an operational reserve for these aircraft, which is essential to the retention and management of talented aircrews. This represents a fundamental shift in the nature and role of the National Guard. It runs counter to the wisdom and preference of many Members of Congress and their constituents.

This issue is important in Pennsylvania and to the 1-104th Attack Reconnaissance Battalion in Johnstown. These highly trained airmen crew played an invaluable aerial support role in Afghanistan where they flew their Apache helicopters and fought alongside the Active Component.

The Army now proposes to replace these Apaches with a smaller number of Black Hawks. This reduction will deprive the National Guard of both highly trained personnel and equipment. It will result in the National Guard being less effective, less combat capable, and less able to heed the call to defend this Nation both at home and abroad.

I offered similar criticism of ARI last year and joined my colleagues in urging for the creation of the National Commission on the Future of the Army. I also advocated that there should be no transfers or divestment of any Army aircraft, including Apaches, until after the Commission has had sufficient opportunity to examine ARI. I applauded the House Armed Services Committee for including those important provisions in the fiscal year 2015 National Defense Authorization Act, but I was disappointed to see that, at the insistence of the Senate, the legislation also contained a glaring

exception that allows the Army to transfer up to 48 Apaches prior to the Commission releasing its finding and recommendations.

The Commission was established to offer a deliberate approach to addressing force structures like ARI. So how did it make any sense to permit the Army to transfer these Apaches before the Commission has done its work? The answer is simple, it doesn't, and we need to put a stop to this before it is too late. Even National Guard Bureau Chief General Frank Grass admits that once these transfers begin, it will be all but impossible to reverse them.

For that reason, I respectfully request that this committee include a simple provision in this year's defense appropriations bill that prohibits funding to transfer any Apaches until the end of fiscal year 2016. This will provide sufficient time for the Commission to release its report, for the Army and the National Guard to respond, and for Congress to make a reasoned and well-informed decision.

I recognize that this committee will be forced to make many difficult decisions over the next few months, but this isn't one of them. Providing a temporary freeze on the transfer of Apaches just makes sense, and it will ensure that irreparable harm is not done to our National Guard without due deliberation.

Thank you for the opportunity to address you this morning, and I am happy to address any questions you may have.

Mr. FRELINGHUYSEN. Mr. Rothfus, thank you very much for your strong advocacy. I can ensure you that inside this room in a very public manner there are many members, including yours truly, that are very concerned about this whole transformation and where the Army is going in terms of its aviation goals. And we have a sharp debate, and I think most of us are very highly supportive in recognizing the incredible work of the National Guards throughout all 50 States. And so it is a work in progress. We have slowed down a lot of what the big Army has wanted to do. And we will continue to focus on this issue with a lot of the things that you have continued to bring to our attention.

Mr. ROTHFUS. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you.

[The written statement of Congressman Rothfus follows:]

Member Testimony Submission
Congressman Keith Rothfus (PA-12)
House Appropriations Committee, Defense Subcommittee
Wednesday, April 15, 2015

Chairman Frelinghuysen, Ranking Member Visclosky, and Members of the Subcommittee:

Thank you for holding this hearing today and for receiving my testimony on the Fiscal Year 2016 Defense Appropriations bill. To be sure, with increased budgetary pressure, your work in crafting this important legislation will be filled with difficult choices about which programs to fund and where to cut.

It would have been my preference that Congress would have addressed this issue directly during the budget process and taken steps to responsibly fund our national defense, on-budget and with offsetting cuts. Unfortunately, that did not come to pass, and we are left with the present task of trying to fulfill our greatest responsibility while hampered by unnecessary fiscal constraints.

It is a result of these constraints that our military has been forced to implement policies like the Army's Aviation Restructuring Initiative (ARI). As you know, this policy will result in the Army eliminating all single-engine rotary wing aircraft (for example, OH-58D Kiowa Warrior helicopters) from its inventory and transferring all National Guard AH-64 Apaches to the active component. Army officials have stated that this restructuring is necessary to generate savings and make the remaining aviation fleet more affordable. I have long opposed this plan and for the second year in a row ask, Mr. Chairman, savings at what cost?

Since 9/11, the National Guard has repeatedly risen to the occasion. They have answered the call and fought bravely in Iraq and Afghanistan. At the height of these wars, nearly fifty percent of the Army's total force was a mix of reservists and members of the National Guard. The Pennsylvania National Guard alone contributed more than 42,000 individual deployments. They have fought side-by-side with the active component, all while continuing to achieve their important mission here at home. As the National Governors Association put it best, the modern National Guard has become "a highly experienced and capable combat force and an essential State partner in responding to domestic disasters and emergencies."

ARI will have devastating impacts on all that the National Guard has achieved. By stripping the National Guard of its Apache helicopters, the Army is ensuring that the National Guard will be less combat-ready and less able to provide operational depth. It will also deprive our nation of an operational reserve for these aircraft, which is essential to retention and management of talented aircrews. This represents a fundamental shift in the nature and role of the National Guard. It runs counter to the wisdom and preference of many members of Congress and their constituents.

This issue is important in Pennsylvania and to the 1-104th Attack Reconnaissance Battalion (ARB) in Johnstown. These highly-trained airmen and crew played an invaluable aerial support role in Afghanistan, where they flew their Apache helicopters and fought alongside the active component. The Army now proposes to replace these Apaches with a smaller

number of Blackhawks. This reduction will deprive the National Guard of both highly-trained personnel and equipment. It will result in the National Guard being less effective, less combat-capable, and less able to heed the call to defend this nation, both at home and abroad. Major General Wesley Craig, former-Adjutant General for the Pennsylvania National Guard, summarized this well when he stated that this “does not make sense for our community, commonwealth, or country.”

I offered similar criticism of ARI last year and joined my colleagues in urging for the creation of the National Commission on the Future of the Army. I also advocated that there should be no transfers or divestment of any Army aircraft, including Apaches, until after the Commission has had sufficient opportunity to examine ARI. I applauded the House Armed Services Committee for including those important provisions in the FY15 National Defense Authorization Act. But I was disappointed to see that, at the insistence of the Senate, the legislation also contained a glaring exception that allows the Army to transfer up to 48 Apaches beginning on October 1, 2015, prior to the Commission releasing its findings and recommendations.

When this legislation passed, many justifiably understood that the National Guard could comply by transferring a small number of Apaches from many different ARBs. The Army disagreed with that approach, however, and demanded that the National Guard inactivate two ARBs in their entirety. That is why, on April 1st, National Guard Bureau (NGB) announced that the 1-104th and 1-135th ARBs, located in Johnstown, Pennsylvania, and

Whiteman Air Force Base, in Missouri, would be shut down. To me, it is unconscionable that these decisions are being made before the Commission has even held its first meeting.

The Commission was established to offer a deliberate approach to addressing force structure issues like ARI. So how does it make any sense to permit the Army to transfer these Apaches before the Commission has done its work? The answer is simple: It doesn't, and we need to put a stop to this before it is too late. Even NGB Chief General Frank Grass admits that once these transfers begin, it will be all but impossible to reverse them.

For that reason, I respectfully request that this Committee include a simple provision in this year's Defense Appropriations bill that prohibits funding to transfer any Apaches until the end of Fiscal Year 2016. This will provide sufficient time for the Commission to release its report, for the Army and the National Guard to respond, and for Congress to make a reasoned and well-informed decision.

Again, I recognize that this Committee will be forced to make many difficult decisions over the next month. But this isn't one of them. Providing a temporary freeze on the transfer of Apaches just makes sense and will ensure that irreparable harm is not done to our National Guard without due deliberation.

Thank you for the opportunity to address you this morning, and I am happy to address any questions that you may have.

Mr. FRELINGHUYSEN. Congresswoman Brenda Lawrence from Michigan, thank you very much for being with us. Thanks for your patience.

SUMMARY STATEMENT OF CONGRESSWOMAN LAWRENCE

Mrs. LAWRENCE. Good morning. I want to thank the chairman and the ranking member for having me here today. I want to thank all the members for allowing me the opportunity to testify.

I was still a teenager when we pulled out of Vietnam, yet I remember the impact it had on our country and how it changed our thoughts on war and diplomacy. The role of women in this country was changing as well.

Many of us only saw images on TV as our role models of housewives. Now, more than 200,000 women are in Active Duty military, including about 70 generals and admirals. Yet among the top ranks only 7 percent of the 976 generals and admirals are women. Among the enlisted, 60 percent of women are still in either the medical or administrative specialties. Another 30 percent are in supply units as part of the communications staff. The numbers aren't much different for the female officers.

To promote gender quality, we have to ensure that our military training reflects the true nature of combat rather than outdated notions of what it means to be a good soldier. This will require more funding.

I am pleased that the National Defense Authorization Act removed several barriers to women serving and those planning to serve, including more gender-neutral occupational standards that will allow almost all military positions and units to be open to women, requirements that combat equipment for women are properly designed and fitted and meet requirement standards for wear, a review by the comptroller general to review recruitment efforts toward women and officers.

Thankfully, the presumption of innocence by those good military character most likely innocent and sexual assault prosecutions were removed as well.

I hope that these important aspects of the NDAA are fully funded and monitored by this subcommittee and by the House Armed Services Committee. While issues such as changes in combat equipment and design take time, I respectfully request that a report on timing.

Cyber operations are growing and become a very important part of each of the services. Cybersecurity is also a gender-neutral occupation, allowing both men and women to serve our country and protect our Nation as equals. We need to see this growing area of concern addressed through effective human resourcing and adequate funding for advanced technology.

I am pleased that this committee supports funding the equality programs for girls in Afghanistan, but we must push for that same ideal here. We must lead in demonstrating that gender equality is not limited to private industry in foreign countries, but in our military too.

Mr. Chairman, I am aware of how difficult your job is in these tough fiscal times, and I am aware that you serve to fund a part of our Nation that is critical to the very safety and well-being of

Americans. As you consider what to provide funding for and what to decrease, I respectfully ask that you maintain full funding provisions that address changes to combat equipment, support for sexual assault victims, female outreach and recruitment programs, gender occupation policy reviews and program reviews. I also ask that you request a report from the services on the costs and timing of what I feel is critical, equipment changes for women.

Let us demonstrate with our words and our dollars that the funding for equality should happen at home just as it does abroad.

I really do appreciate being able to bring this to you today, being excited about being one of the 100 women serving in this Congress this year and proud to be a Congresswoman for the United States of America. Thank you.

Mr. FRELINGHUYSEN. You have good reason to be proud. And may I say that all the members of the committee may not be here, but Mr. Visclosky and I representing them, along with Mr. Ruppersberger, feel that we are actually committed to removing barriers to any position in the military for women. You should be aware that we feel very strongly about that.

The committee has made a substantial investment, if we need to do it, relative to the inexcusable issue of sexual assault. We are not going to stand for it. We have been quite strong, very strong in that regard. It doesn't matter what the service is, what the circumstances are.

And in terms of equipment, we obviously need to recognize that the equipment needs to be adjusted——

Mrs. LAWRENCE. Yes.

Mr. FRELINGHUYSEN [continuing]. And done in a way that allows more women to serve in more positions. And I will agree with you, I think we need that to have a review as to who is in leadership and to make sure that we have a fair representation. Because certainly, given our commitment over the last couple of years to two wars, women have stood with men in every way, both domestically here at military installations, but in a lot of different, rough, horrible environments abroad. And so I just want to assure you that our committee is committed to those types of goals that you advocate for and have advocated so well for today.

Mrs. LAWRENCE. Thank you so much, Mr. Chairman.

[The written statement of Congresswoman Lawrence follows:]

STATEMENT BY

THE HONORABLE BRENDA L. LAWRENCE

U.S. REPRESENTATIVE OF THE 14TH CONGRESSIONAL DISTRICT OF MICHIGAN

BEFORE THE HOUSE COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEE ON DEFENSE

FIRST SESSION, 114TH CONGRESS

ON DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2016

APRIL 15, 2015 AT 9:30 A.M.

H-140, THE CAPITOL

Thank you, Mr. Chairman and Ranking Member Visclosky, for having me here this morning. I would also like to thank all the members of the committee for allowing me the opportunity to testify on this important matter.

I was still a teenager when we pulled out of Vietnam. Yet, I remember vividly the impact it had on our country and how it changed our thoughts on war and diplomacy. The role of women in this country was changing as well.

The women's movement of the 1970s was in part a reaction to the type of happy homemaker that was often portrayed in television sitcoms in the 1950s. Young women coming of age in the 1950s were only exposed to housewives like those in *Leave It to Beaver*, *The Donna Reed Show* and *Father Knows Best*. A working woman as a role model did not come along until the late 1960s and early 1970s, with shows such as *Julia* with Diahann Carroll or *The Mary Tyler Moore Show*. A new social movement took center stage in the 1970s. It followed the lead of the civil rights movement, and allowed women to push not just for more educational opportunities but for equality in all aspects of their lives.

The military moved much slower than private industry to include women beyond the role of caregiver, nurse, or administrative assistant. Yet it has come a long way from only having women serve in supportive, secondary roles to their male counterparts.

Now more than 200,000 women are in the active-duty military, including almost 70 generals and admirals. That number comprises approximately 74,000 in the Army, 53,000 in the Navy, 62,000 in the Air Force and 14,000 in the Marine Corps. Women make up about 14.5 percent of the active-duty force of almost 1.4 million.

Among the top ranks, only 7.1 percent of the 976 generals and admirals are women. Broken down this number remains way too small with 28 female generals in the Air Force, 19 in the Army, 21 female admirals in the Navy, and only 1 in the Marine Corps. Among the enlisted ranks, 60 percent of women are still in either the medical or administrative specialties; another 30 percent are in the supply units or part of the communications staff. The numbers are not much different for female officers.

While the move to lift the ban and open combat units in the military to women seemed risky to some, I strongly believe like many others -- that it is about time. As former Secretary of Defense, Leon Panetta stated, "If members of our military can meet the qualifications for a job, then they should have the right to serve, regardless of creed or color or gender or sexual orientation."

To promote gender equality, we have to ensure that our militaries' tests and training reflect the true nature of combat rather than preconceived and traditional notions of what it means to be a good soldier. Women make up over half the population in the United States and slightly less than half of the workforce. And while the private sector still struggles with the glass ceiling and pay equality is still not realized -- we are making great strides. The military must continue to make great strides as well.

I am pleased that the National Defense Authorization Act removed several barriers to women currently serving and those planning to serve; including:

- 1) More gender-neutral occupational standards that by January 2016 will allow almost all military positions and units to be open to women;
- 2) A requirement that combat equipment for women be properly designed and fitted and meet required standards for wear and survivability;
- 3) The armed forces need to have a strong pool of highly qualified individuals to meet their leadership needs. I am pleased that NDAA requires a review by the Comptroller General to review outreach and recruitment efforts toward women officers. This review should help identify and evaluate current recruiting methods and put forward new ones, including new ways to increase the number of young women into and graduating from the military academies; and
- 4) Finally the attempt to stem the Congress here continues its practice of legislating in various ways in an attempt to stem the tide of military sexual assaults. Thankfully the “good soldier defense”—which considered those of general military character toward the probability of innocence in sexual assault prosecutions was eliminated. Victims can now be consulted regarding their preference for prosecuting offenders by court-martial or through civilian channels.

While these and the other provisions may be beneficial, they do not go far enough. I agree with the National Women’s Law Center that the most effective way to combat sexual assaults would be to create an independent, unbiased system of military justice, as provided in the proposed Military Justice Improvement Act. Issues of retaliation must be addressed. I hope these important aspects of the NDAA are fully funded and monitored by this subcommittee and by the full committee as well.

While issues such as changes in combat equipment and design take time, I respectfully request that a report on timing and cost is submitted to the committee. We would expect the services to move with all deliberate speed if our soldier’s equipment did not allow them to effectively engage the enemy. This should be true for all service-members not just the men.

Mr. Chairman, we are in a time of fighting on multiple fronts using weapons we could not have even imagined during the Vietnam-era. Most of these weapons require more brains and less brawn. They require knowledge of cyber warfare, the ability to use missiles and drones to fight from a distance. These and other modern weapons have equalized the potential for women in combat, since wars are less likely to be fought on a hand-to-hand basis. Many of the new military occupations are or can become gender-neutral. They focus on the service-members intellect not their physical stature.

The fast pace advance of technology is producing changes in the threats we face. How can we keep up? The answer is to be just as innovative with our human resources strategy as we are with our weapons and tactics. We need new ways to recruit the best talent to defend our nation. One of those ways is to better utilize the other half of the population — women.

One young woman so poignantly asked “How can we effect change in the world when only half of it is invited or feel welcome to participate in the conversation?” Women must be a part of the security conversations and this committee has the power to include them by funding provisions that support greater involvement.

Members of this committee know the world is changing, warfare is changing, and our military must change with it or suffer the consequence. Cybersecurity is a gender-neutral occupation. Allowing both men and women to serve our country and protect our nation as equals. I hope we will continue to see this growing area of concern addressed through effective human resourcing and adequate funding for advanced technology.

Just as we fund equality programs for girls in Afghanistan, we must push for that same idea here. Mr. Chairman, Ranking Member Pete Visclosky and members of this subcommittee; I am aware of how difficult your job is in these tight fiscal times. You serve to fund a part of our nation that is critical to our very well-being as Americans. This is an awesome power and as such it comes with a heavy responsibility.

As you consider what to provide full funding for or what to decrease, I respectfully ask that you maintain full funding for provisions that address changes to combat equipment, support for sexual assault victims, female outreach and recruitment programs, and gender-occupational policy reviews. I do not say this just because I am a woman and a member of congress. I say this because I am also a mother and a grandmother, that taught both her son and her daughter that they could grow up in this great country and be anything they set their mind to. We should not fund programs that push for equality abroad if we are not willing to push for full equality here at home.

Thank you Mr. Chairman.

Mr. FRELINGHUYSEN. Mrs. Wagner, Congresswoman Ann Wagner, thank you for being with us.

SUMMARY STATEMENT OF CONGRESSWOMAN WAGNER

Mrs. WAGNER. Thank you. I appreciate your time and your patience, Mr. Chairman and Ranking Member and Members of the subcommittee.

I first want to extend my appreciation for the work that you do, as a proud mother of a son who is a West Point graduate and does serve in the United States Army in the 101st Airborne. He will receive his captain's bars on April 30, and I will be there on that very proud, wonderful day. And I represent thousands of constituents in Missouri's Second Congressional District that wear the uniform. I know firsthand the importance of the subcommittee's work for our national security.

In the past 2 years, I have become very familiar with the Navy's tactical aviation capabilities. Last year this subcommittee responded to the Navy's requirement for more electronic attack capabilities by providing 15 EA-18G Growlers in the fiscal year 2015 budget. Those aircraft will provide a warfighting capability that no adversary can match. Growlers will keep our Navy equipped to overcome enemies today and in the future in all threat environments. For that, I would like to say thank you.

Today, I am here to support adding F/A-18 aircraft to the fiscal year 2016 budget. As you know, the Navy submitted an unfunded requirement for 12 F/A-18F model aircraft. In testimony, the Chief of Naval Operations, Admiral Jonathan Greenert, stated that the Navy has, and I quote, "a Super Hornet shortfall" of at least two to three squadrons, the equivalent of 24 to 36 aircraft. An aging fleet of legacy aircraft, the delayed operational deployment of the F-35 program, and a higher than anticipated utilization of Super Hornets in combat are contributing to this shortfall.

To this last point, the Super Hornet is truly the workhorse of Naval combat operations against ISIL. It is an absolutely critical in-demand weapon against our enemies. To exacerbate the shortfall challenge, the Navy has lost, sadly, 15 Super Hornets and Hornets over the past 5 years to battle or training losses, aircraft that have not been able to be replaced by the Navy or Congress.

The strike fighter shortfall identified in the unfunded requirement request is not a new issue to the Navy, and it is one identified by this subcommittee repeatedly. The HACD has been on the leading edge of telling the Navy to address its inventory challenges. We all wish that the President's budget request included additional F/A-18 Super Hornets, and we all expect the Navy to address the total extent of the shortfall in subsequent budgets.

However, without aircraft in fiscal year 2016, the F/A-18 program faces a line closure decision. The F/A-18 manufacturing line is the only aircraft production with the ability to build operational strike fighters for the Navy today and AEA aircraft for the entire Department of Defense. Without it, the Navy couldn't address its shortfall, nor could it add Growlers in the future.

I would not be in front of you today if funding additional aircraft were not so vital to the warfighting capability, sir. Adding aircraft

and keeping the F/A-18 line alive is the right thing to do to keep our military personnel safe and to keep our country and allies safe.

I have provided a copy of a House letter signed by myself and my colleagues requesting additional aircraft. These are Members who have stood by the subcommittee to support defense appropriations in years past. I have also added a copy of the unfunded requirement highlighting the Navy's request for 12 aircraft.

Mrs. WAGNER. In closing, I urge you to add 12 F/A-18 aircraft to ensure the Navy can protect our Nation now and in decades to come.

I look forward to working with you and this subcommittee and supporting the appropriations process as it moves through the House of Representatives. I stand at your service and thank you for yours.

[The written statement of Congresswoman Wagner follows:]

Testimony before HACD regarding F/A-18 Super Hornets

Wednesday, April 15 @ 9:50am

Representative Ann Wagner (MO-2)

Mr. Chairman and Ranking Member, and Members of the Subcommittee, I want to extend my appreciation for the work that you do. As the proud mother of a son serving in the United States Army, and representing thousands of constituents that wear the uniform, I know firsthand the importance of this Subcommittee's work for our national security.

The past two years I've become very familiar with the Navy's tactical aviation capabilities. Last year, this Subcommittee responded to the Navy's requirement for more electronic attack capabilities by providing 15 EA-18G Growlers in the Fiscal Year 2015 budget. Those aircraft will provide a warfighting capability that no adversary can match. Growlers will keep our Navy equipped to overcome enemies today and in the future in all threat environments. For that, I would like to say thank you.

Today I am here to support adding F/A-18 aircraft to the Fiscal Year 2016 budget. As you know, the Navy submitted an "Unfunded Requirement" for 12 F/A-18 "F model" aircraft. In testimony, the Chief of Naval Operations (CNO), Admiral Jonathan Greenert, stated that the Navy has a "Super Hornet shortfall" of at least two or three squadrons – the equivalent of 24-36 aircraft. An aging fleet of legacy aircraft, the delayed operational deployment of the F-35 program, and the higher than anticipated utilization of Super Hornets in combat are contributing to this shortfall. To this last point, the Super Hornet is truly the workhorse of naval combat operations against the Islamic State of Iraq and the Levant (ISIL). By some estimates, the Super Hornets today are flying four times the anticipated rate. It is an absolutely critical, in-demand weapon against our enemies. To exacerbate the shortfall challenge, the Navy has lost 15 Super Hornets and Hornets over the past 5 years to battle or training losses – aircraft that have not been replaced by the Navy or Congress.

The strike fighter shortfall identified in the Unfunded Requirement request is not a new issue to the Navy, and it is one identified by this Subcommittee repeatedly. The HACD has been on the leading edge of telling the Navy to address its inventory challenges. We all wish that the President's Budget request included additional F/A-18 Super Hornets, and we all expect the Navy to address the total extent of the shortfall in subsequent budgets. However, without aircraft in Fiscal Year 2016, the F/A-18 program faces a line closure decision. The F/A-18 manufacturing line is the only aircraft production with the ability to build operational strike fighters for the Navy today and AEA aircraft for the entire Department of Defense. Without it, the Navy couldn't address its shortfall, nor could it add Growlers in the future. Recall that there is likely a larger, joint requirement for more EA-18G Growlers that is pending further analysis. I would not be in front of you today if funding additional aircraft were not so vital to our warfighting capabilities. Adding aircraft and keeping the F/A-18 line alive is the right thing to do to keep our military personnel safe and to keep our country and allies safe.

I have provided a copy of a House letter signed by myself and my colleagues requesting additional aircraft. These are Members who have stood by the Subcommittee to support defense appropriations in years past. I have also added a copy of the "Unfunded Requirement"

highlighting the Navy's request for 12 aircraft. I ask that both of these documents be submitted as part of my written testimony.

In closing, I urge you add 12 F/A-18 aircraft to ensure the Navy can protect our nation now and decades to come. I look forward to working with this subcommittee and supporting the Appropriations process as it moves through the House of Representatives. I stand at your service and thank you for yours.

Mr. FRELINGHUYSEN. Well, Mrs. Wagner, thank you for your testimony and congratulations on your son's promotion and his service to our Nation.

I can assure you we are working very closely with the Navy. We obviously have some of the oldest aircraft across the broad spectrum of aircraft that we have to deal with and we will do our level best to address the issues, because obviously the F-18 has incredible capabilities and we still need its capabilities.

Mrs. WAGNER. It is the workhorse, sir. And losing 15 in the last 5 years, we have taken a real hit. So anything that this subcommittee can do and anything I can do to be supportive through the appropriations process, I am there to serve.

Mr. FRELINGHUYSEN. Mr. Visclosky.

Mr. VISCLOSKY. Mr. Chair, I would simply say the best for last. And also, I add my congratulations on your son.

Mrs. WAGNER. Thank you.

Mr. VISCLOSKY. And thank you for his service.

Mrs. WAGNER. He is a wonderful young man, and we look forward at the end of the month to celebrating him.

Mr. FRELINGHUYSEN. Well, congratulations to you.

Committee stands adjourned. Appreciate everybody showing up and for their support of this hearing.

[CLERK'S NOTE—The following written testimony was submitted for the record.]

Testimony of Representative Mike Bost
Member of Congress
12th Congressional District of Illinois
Before the House Committee on Appropriations
Subcommittee on Defense
April 15, 2015

Chairman Frelinghuysen and Ranking Member Visclosky, thank you and the other members of the Subcommittee for the opportunity to address you on a matter of great importance to the continued warfighting ability of the United States Navy, and the preservation of an important component of our nation's defense industrial base.

The current state of overseas turmoil makes it more imperative than ever that Congress acts to ensure that our military has the platforms and capabilities it needs to meet multiplying and diverse challenges and threats to the national security of the United States and our allies.

Specifically, Mr. Chairman, I am addressing the critical need of the United States Navy for additional strike fighters. As you know, the F/A-18 Super Hornets are executing critical strike fighter missions against ISIL and other al-Qaeda affiliated terrorist entities at an estimated four times the anticipated rate of use, while the newer EA-18G Growlers are providing unique and essential electronic sensing and attack capabilities to the United States Navy, joint and coalition forces

In recent testimony, Chief of Naval Operations Admiral Greenert stated that the Navy is experiencing a serious shortfall of F/A-18 Super Hornets – 24 to 36 aircraft - due to the above

mentioned high rate of utilization of the existing fleet and issues with the speed of repairs to Legacy Hornets at the depots. The Navy's inclusion of 12 F/A-18 aircraft in their "Unfunded Priorities" list reflects the service's realization that without additional strike fighters the Navy may be faced with a shortage of operation-ready aircraft that will negatively impact ongoing and future operations.

The F/A-18 is currently the only operational strike fighter line in the United States and as such is a significant national security asset we should act to protect. Unfortunately, the aircraft's production line is at a critical juncture and without Congressional action, it may close. In addition to the national security value provided by the existence and maintenance of the St. Louis area defense industrial base, the F/A-18 Super Hornet and EA-18G Growler program line represents more than 60,000 U.S. jobs with 800 supplier partners throughout 44 states.

In closing, prudence requires we keep and maintain the F/A-18 Super Hornet and EA-18G Growler production lines – for the national security of the United States and the capabilities of the Navy. I strongly urge the Committee to appropriate the funds necessary to fulfill the Navy's request for an additional 12 F/A-18 aircraft for the coming fiscal year.

Once again, I thank the Committee for the opportunity to address you on this matter. I look forward to working with you to ensure our warfighters have the equipment and capabilities they need to protect our nation.

Testimony of Congressman Ron DeSantis (FL-6)**April 15th, 2015****House Appropriations Subcommittee on Defense**

Chairman Frelinghuysen, Ranking Member Visclosky, Members of the Subcommittee on Defense, thank you for having me here to testify today. I know this is a particularly busy period for this committee, and I appreciate your time and consideration.

Recently, the Director of the Joint Staff, Lt. Gen. David Goldfein, said that 2014 was the “most complex year since 1968” for the military. It is essential that we provide our men and women in uniform with the most capable systems available so they are able to respond to the ever-increasing number of threats to our national security. As such, I hope you will support the FY16 President’s budget for the E-2D Advanced Hawkeye.

As you know, the E-2D AHE is the Navy’s carrier-based Airborne Early Warning and Battle Management Command and Control (BMC2) system. The E-2D provides Theater Air and Missile Defense, synthesizing information from multiple onboard and off-board sensors, making complex tactical decisions, and disseminating actionable information to Joint Forces in a distributed, open-architecture environment.

Using the Mechanical Electronic Scan Array (MESA) radar and the Cooperative Engagement Capability system, the E-2D works with surface ships equipped with the Aegis combat system and tactical aircraft to track and defeat air and cruise missile threats at extended range and provides Operational Commanders required reaction time. This system-of-systems architecture,

known as Naval Integrated Fire Control-Counter Air (NIFC-CA), provides force protection and allows the Navy to project forces into the littorals and overland.

FY16 funds the third year of the Navy's MYP, which will yield significant cost savings. MYP for the E-2D program is the most cost-effective and efficient way to provide the Navy with these critical capabilities. Full FY16 for procurement funding is required to support the production of five aircraft, full advanced procurement funding is required for six aircraft in FY17, and full funding of research and development is critical in FY16.

The role technology plays in modern warfare can never be discounted, and the technological advances of the E-2D will ensure that our military maintains its critical edge. Your support for the Navy's E-2D Advanced Hawkeye program in the FY16 President's Budget is essential to maintaining the safety of our carriers in a changing environment where we are facing new threats.

Thank you again for having me here today and thank you for all you do for our warfighters and our country.

Testimony of Representative Rodney Davis (R-IL)
Member of Congress
13th Congressional District of Illinois
Before the House Committee on Appropriations
Subcommittee on Defense
April 15, 2015

Mr. Chairman and Ranking Member, and Members of the Subcommittee, I want to thank you for the work that you provide to keep our Nation safe. Though I am unable to attend the Fiscal Year 2016 Members Hearing in person, I ask that the Subcommittee consider my remarks for their records as you consider the Fiscal Year 2016 budget for the Department of Defense.

The issue of tactical aviation is essential to our Nation and our warfighters. As the Subcommittee knows, the United States Navy submitted a list of unfunded priorities to the congressional defense committees following the formal release of the FY16 budget. Included among those priorities were 12 F/A-18F Super Hornet aircraft. The Chief of Naval Operations (CNO), Admiral Jonathan Greenert, testified before the U.S. Senate this year that the Navy recognized, albeit too late for submission into the budget, a significant strike fighter shortfall. This lack of available strike aircraft resulted from higher than anticipated usage of Super Hornets in today's combat operations, and the slower than expected depot maintenance on legacy aircraft. Combined, these factors manifested in a "Super Hornet shortfall" of at least 2-3 squadrons – equivalent to 24-36 aircraft – that is no longer manageable. The Navy's own document states that "The risk is considered barely manageable in PB-16...Procuring 12 additional F/A-18F Super Hornet aircraft will reduce near-term Strike Fighter inventory gaps and risk, and address a long term inventory by assuring aircraft with useful life to 2035."

The need for the Subcommittee's support in the FY16 defense appropriations bill is essential. Today, the F/A-18 production line stands at a crossroads. Without aircraft in this

year's budget, the manufacturing line – the only tactical aircraft being produced for operational missions today – faces a real shutdown decision. Absent 12 aircraft provided by Congress, there is the possibility that the Navy couldn't address the full scope of its Super Hornet shortfall in future budgets because the line had been shuttered.

The F/A-18 manufacturing line also includes production of the EA-18G Growler, the Nation's only full spectrum airborne electronic attack aircraft today. The Growlers deploy from the Navy's aircraft carriers, but also provide the Joint forces with electronic attack capabilities for use by our Combatant Commanders. The Department of Defense is finalizing analysis to determine whether there is additional demand for more Growlers given the growing challenge for our warfighters to control the electromagnetic spectrum. The CNO has stated repeatedly that dominating in that very arena is one of his top priorities. If the F/A-18 line isn't available to produce Growlers, however, our military could be left without key aviation assets for combat.

The Subcommittee has many issues and priorities to address in consideration of the FY16 defense budget. The F/A-18 continues to be the workhorse of naval operations, and one of the top weapons in our ongoing battle against the Islamic State of Iraq and the Levant (ISIL). The Overseas Contingency Operations (OCO) fund should be utilized to support today's warfighting efforts, which is what the Super Hornets and Growlers are doing. Furthermore, in the past six years, the Navy has lost six Super Hornets and nine Hornets to training accidents or wartime losses. Congress has historically supported replacement of war and training losses in the OCO fund. Doing so again in FY16 would be an appropriate use of those funds.

I ask that the Subcommittee please consider supporting 12 F/A-18 aircraft in this year's budget. There is a warfighting demand for more aircraft, and the opportunity to keep the F/A-18

production open is now. As you continue your deliberations, I hope that I can be helpful to you to ensure we remain vigilant in our national security.

Thank you for your consideration to this important matter.

The Honorable Peter J. Roskam of the 6th Congressional District of Illinois
Testimony on U.S.-Israel Missile Defense Cooperation
House Appropriations Defense Subcommittee
April 13, 2015

Chairman Frelinghuysen, Ranking Member Visclosky, distinguished Members of the Committee: thank you for the opportunity to submit testimony for this critical hearing on our national defense priorities for the Fiscal Year 2016 Defense Appropriations bill.

Mr. Chairman, decades of close security cooperation between the United States and Israel has made both nations stronger, safer, and better equipped to confront the common challenges we face. The clearest example of this partnership is our cooperative missile defense systems—Iron Dome, David’s Sling, and Arrow. These state-of-the-art systems empower Israel and the United States to defend against a multitude of aerial threats—including short, medium, and long-range missiles and rockets.

In the past year, the security situation in the Middle East has continued to deteriorate. The Syrian Civil War continues with no end in sight, Iran is advancing its nuclear weapons program, Hamas and Hezbollah have increased their military capabilities, and Yemen has descended into chaos. This turmoil further endangers Israel, other regional allies, and American servicemembers serving abroad. As we see our enemies more emboldened and their capabilities growing, joint U.S.-Israel security cooperation is needed now more than ever.

As we speak, tens of thousands of rockets are pointed at Israeli population centers. On Israel’s southern border, Hamas has greatly enhanced both the range and quantity of rockets in its arsenal. On Israel’s northern border, Hezbollah has upwards of 100,000 rockets and missiles, ready to launch at a moment’s notice. Additionally, Iran’s ongoing intercontinental ballistic missile (ICBM) development program threatens Israel, the United States, and our western partners.

Last August, Iran-backed Hamas in the Gaza Strip fired over 4,500 rockets at Israeli schools, hospitals, and homes. Iron Dome, however, successfully intercepted 90 percent of the rockets headed for population centers, saving countless innocent lives. And now the United States is co-producing this system with Israel, giving us a share in this important technology. In order to ensure Iron Dome’s continued readiness, Congresswoman Meng and I sent the Appropriations Subcommittee on Defense a programmatic request seeking \$41.4 million in funding for Iron Dome in FY 2016.

As Israel’s enemies enhance their capabilities, the development of medium and long-range missile defense systems takes on new importance. The United States and Israel are ramping up serial co-production and procurement of the David’s Sling Weapons System, which will defend against Large Caliber Artillery Rockets (LCAR), Tactical Ballistic Missiles (TBM), and the emerging cruise missile threat. With our support, we expect this system to achieve initial operating capability sometime shortly. To address the growing threat of long-range missiles, the United States and Israel are working together to enhance the Arrow System Improvement Program and develop the exo-atmospheric Arrow-3 interceptor. The partnership between Israeli and American subcontractors is creating jobs and greatly enhancing our own missile defense

technology. Therefore, Congresswoman Meng and I have requested \$286.9 million in funding for the David's Sling and \$146.9 million for the Arrow programs, thus making our total request \$475.2 million dollars for all three systems.

Mr. Chairman, during these challenging budgetary times we can and must prioritize federal funding for the programs where federal involvement can have the greatest impact on the safety and security of the American people, our servicemembers, and our allies. These highly advanced missile defense systems have consistently been a key factor in Israel's self-defense and further technological and operational advancements will be crucial moving forward. I want to thank the Committee for its past support and I look forward to working with you to sustain and advance the critical partnership between Israel and the United States of America. Thank you again for the opportunity to submit this testimony.

**TESTIMONY OF
HON. MADELEINE Z. BORDALLO
OF GUAM
IN THE HOUSE OF REPRESENTATIVES
WEDNESDAY, APRIL 15, 2015**

Chairman Freylinghuysen, Ranking Member Visclosky and distinguished members of the subcommittee, I request your support for the following defense programs within the Department of Defense Appropriations Act for Fiscal Year 2016 that if approved, will have a lasting positive impact on national security matters for our country.

I ask your support in funding the U.S. Naval Sea Cadet Corps to a total level of \$2.9 million, an increase in funding of \$1.1205 million over the President's Budget request. The additional funding is necessary to cover unfunded requirements for the program. The program is focused on the professional development of youth ages 11-17, serving almost 9,000 Sea Cadets and adult volunteers in 387 units country-wide. It promotes interest and skill in seamanship and aviation, while instilling qualities that mold strong moral character in an anti-drug and anti-gang environment. Summer training onboard Navy and Coast Guard ships and shore stations is a challenging training ground for developing self-confidence and self-discipline, promotion of high standards of conduct and performance and a sense of teamwork. The Naval Sea Cadet Corps instills in every Cadet a sense of patriotism, courage and the foundation of personal honor. A significant percent of Cadets enlist in the Armed Services and often receive accelerated advancement, while others go on to obtain commissions. The program has significance in assisting to promote the Navy and Coast Guard, particularly in those areas of the U.S. where these Services have little presence. Accessions related to this program are a significant asset to the Services. Funding at the requested level will be utilized to "buy down" the out-of-pocket expenses for training to \$125 per week for volunteers and cadets.

I request that you fund the Air Force's Long Range Strike Bomber to the level requested in the President's budget. A new long-range, stealthy penetrating bomber will be the central pillar supporting the new national security strategy; in particular it is critical to countering anti-access/area denial (A2/AD) threats in the Asia-Pacific region. The focus of the new bomber is to maintain the United States' ability to launch from strategic distances and hold targets at risk, regardless of the threat level. This will require capabilities that can attack well-defended mobile, fleeting, and time sensitive targets even deep within enemy territory. To meet these requirements, systems must have long range, high persistence, heavy payload, timely responsiveness, and high survivability (stealth). As such, I support fully funding the President's Budget request for this critical program to ensure it remains on track for delivery before our current fleet of long range strike assets become obsolete.

Additionally, along with many of my colleagues, I ask that you support a level of appropriations adequate to support the production of four MQ-4C Triton aircraft in fiscal years 2016 and 2017, reducing risk and optimizing the fielding plan to ensure sufficient maritime surveillance capability and capacity are available to meet combatant commander requirements. Moreover, the Navy only requested funding for three aircraft in this fiscal year due to projected budget constraints. Cuts to the buy of Triton aircraft will cause a delay in the deployment of these critical ISR assets and likely lead to increased costs in the program.

I also am requesting total funding of \$75 million for the Readiness and Environmental Protection Integration Program (REPI) and increase in nearly \$15 million over the President's Budget request. The program enables DoD to work with partners to protect valuable habitat and avoid land use conflicts in the vicinity of certain military installations. Maintaining availability, accessibility and capability for realistic training, live fire testing and other operations is crucial to ensuring a trained

and ready force to support DoD missions. Encroachment is a growing area of concern for many military installations across the United States including U.S. territories. REPI is an innovative tool that both protects the mission and achieves conservation objectives by proactively addressing encroachment that can cause costly workarounds and compromise training and readiness of military forces. REPI provides significant and long-term benefits to the people surrounding military installations as well as military personnel. Recent studies have documented the success of the program and also the need for \$150 million in annual funding over the next decade to proactively address the partnership opportunities and to leverage non-federal dollars to maximize accessibility, availability and capability of current military lands for training and testing. Additional funding is needed to fund a number of unfunded requirements and projects. Not increasing the President's Budget request for REPI will only keep basic functions for the program without achieving tangible results from new projects.

As the Committee deliberates on funding through the National Guard and Reserve Equipment Account I would request consideration of adding Acoustic Hailing Devices (AHDs) to the list of "Special Interest Items". AHDs provide the National Guard with critical, dual-use, COTS technology capabilities to support their homeland defense mission. AHDs provide extraordinary long range, highly intelligible communications capabilities to National Guard units and also provide a non-lethal, non-kinetic escalation of force capability applicable to the Guard's crowd control and critical infrastructure protection missions. The Guard uses AHDs for disaster response, law enforcement, search and rescue, and crowd control missions. Recent examples include the Hurricane Katrina response, the 2009 G20 Summit in Pittsburgh, the 2012 NATO Summit in Chicago, the 2012 RNC and DNC national conventions, and the 2013 CO flood response. Guard units in 52 of 54 States and Territories have AHDs (albeit in small quantities) in their inventories.

Using NGREA funds to procure additional AHDs would significantly increase National Guard units' operational effectiveness.

Finally, I request the Committee to support the President's Budget request for the Office of Economic Adjustment. OEA assists communities impacted by DoD program changes. Founded in 1961, OEA has helped communities in all 50 states and the U.S. territories develop comprehensive strategies to adjust to defense industry cutbacks, base closures, force structure realignments, base expansion, and incompatibilities between military operations and local development. The continuing implementation of BRAC 2005, Grow the Force Initiative and Global Posture creates significant requirements for assistance from local communities of OEA. The President's Budget is sufficient to fund these requirements over the course of the fiscal year 2015. This funding and technical assistance of local communities is vitally important to ensuring successful implementation of these DoD basing initiatives.

Lastly, I request that you consider the nation's strategic pivot to the Asia-Pacific region as you determine appropriation levels for programs and projects that support our national rebalance. The region is critical to our national security and by appropriately resourcing the rebalance we reassure our friends and allies in the region of our steadfast commitment, improve our ability to shape the strategic environment, and promote peace and stability.

Congressman Rod Blum (IA-1) 4/15/2015

The ability of the Air Force to embark on modernization and upgrade programs may be placed in jeopardy if the branch does not identify a long-term solution to curtail its high cost of energy (fuel) especially under sequestered funding levels.

The Air Force uses an estimated 79% of the total fuel consumed by the Department of Defense, with the Air Mobility Command (AMC) the largest consumer of fuel within the branch. Under the AMC, the KC-135 is the largest user of fuel, with current consumption approximating \$1 billion dollars annually. Given this large appetite for fuel, improving the fuel efficiency of the KC-135 represents the best opportunity to reduce fuel consumption and cost within the current budget environment. The best way to accomplish this goal is to leverage existing proven technology.

Although oil prices dropped in recent months, historical analysis shows that these price reductions are only temporary and should return to their norm over time. Therefore, investments should be made now prior to the normal increased cost of fuel. The most practical way to realize these fuel savings is through programs like the KC-135 Auto Throttles (AT).

The installation of an available Commercial Off-the-Shelf (COTS) AT system on KC-135 aircraft can result in significant savings in amount of fuel consumed during a year. This system permits the pilot to automatically set throttle settings to minimize fuel use during flight by engaging power settings and specific indicated air speeds for different phases of flight. This cuts back on the amount of manual workload on the pilot, increasing crew situational awareness and improving safety.

Congressman Rod Blum (IA-1) 4/15/2015

In total, the AT modification would rise the KC-135 fleet to the rest of the AMC fleet currently in operation (KC-46A, KC-10, C-17, C-5, and DV airlift fleets). All of these fleets are already equipped with similar fuel use optimization capabilities.

Overall AT investment and savings will vary depending on the size of the fleet but analysis shows that upgrading a range from 179 to 392 aircraft will result in annual savings of 3%, or between \$14M and \$30.6M respectively – the commercial airline industry has demonstrated an annual 5% savings. These cost savings will continue to grow as the price of oil rises.

I respectfully ask that you consider appropriating an additional \$10M investment in the research and development line for the KC-135 for the development and testing of an Auto Throttles system for that aircraft.

I thank the committee for their consideration and hard with difficult decisions during the appropriations process.

STATEMENT BY REPRESENTATIVE DAVID P. JOYCE
OHIO DISTRICT 14
BEFORE THE HOUSE APPROPRIATIONS DEFENSE SUBCOMMITTEE

Chairman Frelinghuysen, Ranking Member Visclosky, and Members of the Defense Subcommittee – thank you for the opportunity to submit testimony today on the need to provide US Air Force civil engineering squadrons with adequate funding to modernize their surveying equipment.

The Air Force requested \$9.1 million for Based Procurement Equipment, a 44 percent reduction in the amount appropriated in fiscal year 2015. This budget line is to allow organizations throughout the Air Force to acquire authorized investment equipment from GSA, DLA, and commercial sources when these items are unavailable through Air Force central procurement or when they exceed the unit cost of what may be purchased using O&M funds.

As the Members of this Subcommittee are aware, the Air Force maintains so-called “RED HORSE” combat engineer squadrons that provide the Air Force with a highly mobile civil engineering response force to support contingency and special operations worldwide. RED HORSE is an acronym for Rapid Engineer Deployable Heavy Operational Repair Squadron Engineers, and these units have been credited with exemplary performance since they were first established in 1966. The units are self-sufficient, 404-person mobile squadrons, capable of rapid response and independent operations in remote, high-threat environments worldwide. They provide heavy-repair capability and construction support when requirements exceed normal base civil engineer capabilities and where U.S. Army engineer support is not readily available. The units possess specialized capabilities, such as water-well drilling, explosive demolition, aircraft

arresting system installation, quarry operations, concrete mobile operations, material testing, expedient airfield/runway construction, and concrete and asphalt paving.

There are four active-duty RED HORSE squadrons (Anderson AFB, Malstrom AFB, Nellis AFB, and Hurlburt Field), six Air Reserve RED HORSE squadrons (Barksdale AFB, Nellis AFB, Hurlburt Field, Charleston AFB, Seymour Johnson AFB, and Beale AFB), and six Air National Guard Red Horse Squadrons (Camp Blanding, Camp Pendleton, Kirtland AFB, Malstrom AFB, Andersen AFB and Camp Perry, Ohio).

RED HORSE's primary wartime responsibility is to provide a highly mobile, rapidly deployable, civil engineering response force that performs heavy damage repair required for recovery of critical Air Force facilities and utility systems, as well as aircraft launch and recovery. The primary RED HORSE peacetime responsibility is to train for contingency and wartime operations. RED HORSE performs training projects that assist with base construction efforts while, at the same time, strengthens their wartime skills.

Air Force Civil Engineers are currently unable to efficiently perform construction, surveying and mapping in-garrison or in deployed theaters of operation due to extremely outdated equipment. This has adversely affected their ability to effectively conduct critical missions, and their ability to respond to homeland natural disasters. Existing Air Force Civil Engineer equipment has been discontinued for nearly 5 years. Thus, maintenance on the equipment is cost-prohibitive, which has resulted in the equipment's no longer being maintained/repaired. In addition, the age of mission critical hardware components (software/hardware) makes those components incompatible with other critical equipment used by the Air Force Civil Engineers. To give you one example of the mis-match of equipment, the Air

Force Civil Engineer School currently trains engineers on modern equipment/software not yet available in the field.

Fiscal year 2016 funds are urgently needed for the purpose of providing commercial off-the-shelf equipment and technologies commonly used in U.S. commercial construction and similar industries. The benefit to Air Force Civil Engineers include:

- **Productivity increases** connected with use of new equipment: 35%+
- **Improved workflows** for Air Force missions: 25%
- **Enhanced capabilities** between Air Force Civil Engineers and Base master planners
- **Rapid data collection:** Reduction in Civil Engineers' required field time by 40% to 60%

I appreciate the difficult job before this Subcommittee in crafting a Bill that meets the needs of our military, yet conforms to budget realities. Given these parameters, I urge you to make it a priority in the Subcommittee's 2016 Bill to modernize the surveying capabilities for Air Force Civil Engineers and achieve the benefits described above.

The benefits of adequate funding would be realized by Air Force Civil Engineering units across the nation. In addition, an up-front investment in the procurement of modern surveying equipment of the type commonly used in our nation's commercial sector today will lead to significant long-term operational savings as well as improved performance during essential combat engineering missions.

Thank you for giving me the opportunity to share my views with you today.

CHRISTOPHER H. SMITH
4th District, New Jersey

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DEAN, NEW JERSEY DELEGATION

Excerpts of Rep. Chris Smith's Remarks
The House Appropriations Subcommittee on Defense
April 16, 2015

Chairman Frelenghuysen, I appreciate the opportunity to testify before your Subcommittee on priorities in the fiscal year 2016 Defense Appropriations Act and would like to point out two issues that are important to Jointbase McGuire-Dix-Lakehurst (JB MDL), the men and women who are stationed on or employed by the installation and the local community who supports it.

As you are aware, JB MDL is our nation's only tri-service installation and is our state's second largest employer—directly resulting in over 40,000 jobs and providing an economic impact of almost \$7 billion. In our recent visit, members of the Delegation were shown how vital JB MDL is to the economy of New Jersey, the Department of Defense's strategic operations, and our national security.

Accordingly, as you draft the FY16 Defense Appropriations Act, I respectfully request that you take the following information into account.

Protect the KC-10s:

Leading up to the release of the FY15 budget, Air Force and DOD officials signaled the administration's intent to phase out the KC-10s—over half of which are stationed at JB MDL. Two of the three operational active duty flying squadrons at JB MDL operate the KC-10, the 305th Air Mobility Wing in partnership with the 514th Air Mobility Wing. While the FY15 budget did not include these plans—in part I believe based on our efforts and the work of the entire Delegation—then-Secretary of Defense Chuck Hagel stated that the Department would continue to review this option in future budget years.

The elimination of these 32 aircraft would decimate the installation's crucial refueling mission and the valuable human capital that supports it, as well as seriously harming the strategic capabilities of our military around the world.

It is important to highlight here, that if the Air Force implements a phase out of the KC-10s, JB MDL's mission does not change: there will still be a strategic necessity to refuel from the base. Without a plan to backfill the aircraft at JB MDL, eliminating the KC-10s will seriously

jeopardize this critical mission—especially given the potential for a delay in the production of the KC-46s.

While the AF will state that they intend to relocate KC-135s from the bases receiving the first KC-46s, it does not appear that the AF has a contingency plan for the increasingly likely delay of the first KC-46s.

Accordingly, a decision to retire the KC-10s right now carries tremendous risk and I am hopeful that you will block any attempt to do so.

Reject a New BRAC Round:

I am also respectfully requesting that the Subcommittee continue to oppose another Base Realignment and Closure (BRAC) Round.

In 2005, then-Fort Monmouth was slated for closure. While not in my Congressional District at the time, the local community and I argued that the base's work—R&D for the Army's C4IRS systems—was vital to the Army; the estimates of employees who would move with the mission was overstated; and the cost of closure and projected savings were both missing the mark.

Ten years later, we know that the cost of closing the base more than doubled. The Commission projected \$780.4 million, and the Army spent \$1.866 billion. Mr. Chairman, the total was more than a billion dollars off.¹

Overall, the last BRAC round cost 67 percent more than projected. In 2005, DOD estimated that the round's total cost would be \$21 billion. In 2012, the Government Accountability Office (GAO) put the total cost at \$35.1 billion. Further, the cost savings dropped by 72%. The report stated:

"Due primarily to the large increase in one-time implementation costs, the 20-year net present value DOD can expect by implementing the 2005 BRAC recommendations has decreased by 72 percent, and our analysis of net annual recurring savings shows a decrease of 9.5 percent compared to the BRAC 2005 Commission's estimates. The 20-year net present value—that is, the present value of future savings minus the present value of up-front investment costs—of \$35.6 billion estimated by the Commission in 2005 for this BRAC round has decreased by 72 percent to about \$9.9 billion."

The brain drain was equally significant. An August 2008 GAO report stated that the Army was "facing human capital challenges in hiring a projected 3,700 federal government civilian employees to fully reconstitute its expected workforce authorization of about 5,100 civilians at Aberdeen Proving Ground in 2011, which includes a large number of scientists and engineers with technical expertise. The Army expects that about 2,200 of these new employees will not be hired until after the slated closure of Fort Monmouth and transfer of functions to Aberdeen Proving Ground in 2011."

¹ GAO-12-709R, Military Base Realignments and Closures: Updated Costs and Savings Estimates from BRAC 2005. June 29, 2012 <http://www.gao.gov/assets/600/592076.pdf>

At the time, the Army stated to GAO that they expected the workforce to be fully reconstituted in 2016—a full year from now. Yet GAO found that full reconstruction would likely not occur until 2024.²

Mr. Chairman, that bears repeating: 2024. We are still, ten years later, almost another decade from fully reconstituting the Army's Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance systems expertise.

As you know, there were productive BRAC recommendations, including creating the Joint Base and many that will produce savings for DOD both over the short- and long-terms. But the costs of relocation—and the inability to estimate those costs with accuracy at the time the decisions are made—is a risk, especially given our ballooning national debt.

In summary, I am hopeful you will reject a new BRAC round and maintain the current KC-10 fleet in this year's bill.

Again, thank you for the opportunity to testify today and highlight the tremendous work of the men and women at Joint Base McGuire-Dix-Lakehurst.

² GAO-08-1010R, Military Base Realignments and Closures: Army Is Developing Plans to Transfer Functions from Fort Monmouth, New Jersey, to Aberdeen Proving Ground, Maryland, but Challenges Remain. August 13, 2008 <http://www.gao.gov/new.items/d081010r.pdf>

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April 13, 2015

The Honorable Rodney Frelinghuysen
Chairman
Defense Appropriations Subcommittee
2306 Rayburn House Office Building
Washington, DC 20515

The Honorable Pete Visclosky
Ranking Member
Defense Appropriations Subcommittee
2328 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Frelinghuysen and Ranking Member Visclosky,

First, I want to thank the Committee for the opportunity to share my comments on the upcoming Fiscal Year 2016 Defense Appropriations process. Your stewardship and support of the defense community are greatly appreciated in this complex time of international instability and domestic financial constraint.

I understand you are often presented with anecdotal illustrations of the residual effects of sequestration, as members of the armed forces and Congress work to reverse the negative course it has set. While it is important to begin the conversation with a broad view, I find it most helpful to argue with detailed data and facts. As a result, I would like to highlight a concrete example of what our airmen are facing due to the constraints of sequestration.

As you know, Holloman Air Force Base in Alamogordo, New Mexico, is a unique facility with unparalleled airspace and over 300+ good weather days per year -- not to mention a phenomenal community for our military families to explore and live within. The base provides the expansive training environment and family support necessary for successful airmen.

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LAS CRUCES, NM 88011

1717 W 2ND ST., STE 110
ROSWELL, NM 88202

200 E. BIRMINGHAM, STE 200
HOUSTON, NM 88240

1161 NEW YORK AVE., RM 115
ALAMOGORDO, NM 88310

2445 LAMAROS LN. NE
LOS LUNAS, NM 87033

111 SCHOOL OF MUSIC RD
SOCORRO, NM 87801

However, sequestration has had a detrimental impact on our F-16 instructor pilots, which subsequently affects the readiness level of the Air Force. Under the current budget environment, the Air Force has been forced to limit F-16 pilots at Holloman to fly less than 10 days per month. The issue at Holloman is not the capacity to support such a mission, but the monetary requirements of fly days.

As a former Air Force pilot, training flights are crucial to the mental and physical wellbeing of any pilot. I am deeply concerned that should this monetary issue directly caused by sequestration not be remedied, and soon, the morale of our airman will degrade, along with their skill level expected of them in air-to-air or air-to-ground near-peer combat scenarios. To maintain the reputation of the best Air Force in the world, they must have the ability to practice their craft. Without a corrective course for sequestration, I fear this will become increasingly difficult to accomplish.

Again, I appreciate the Committee's willingness to accept comments and inputs from Members. I look forward to working with you to pass a Defense Appropriations bill that is worthy of our men and women in uniform.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Pearce", with a stylized flourish at the end.

Steve Pearce
Member of Congress

PUBLIC WITNESS STATEMENTS

The Neurofibromatosis Network

The American Society of Tropical Medicine and Hygiene

Tuberculosis Roundtable

The Ovarian Cancer National Alliance, the Society of Gynecologic Oncology, and the American Congress of Obstetricians and Gynecologists

The National Breast Cancer Coalition

Thurgood Marshall College Fund

The American Psychological Association (APA)

Public Witness Testimony
Submitted to the House Appropriations Subcommittee on Defense
By Kim Bischoff, Executive Director
The Neurofibromatosis Network

Thank you for the opportunity to submit testimony to the Subcommittee on the importance of continued funding for research on Neurofibromatosis (NF), a terrible genetic disorder closely linked to many common diseases widespread among the American population.

On behalf of the Neurofibromatosis (NF) Network, a national organization of NF advocacy groups, I speak on behalf of the 100,000 Americans who suffer from NF as well as approximately 175 million Americans who suffer from diseases and conditions linked to NF such as cancer, brain tumors, heart disease, memory loss, and learning disabilities. Thanks in large part to this Subcommittee's strong support, scientists have made enormous progress since the discovery of the NF1 gene in 1990 resulting in clinical trials now being undertaken by the NFRP.

While not all NF patients suffer from the most severe symptoms, all NF patients and their families live with the uncertainty of not knowing whether they will be seriously affected because NF is a highly variable and progressive disease.

In Fiscal Year 2016, we are requesting level funding of **\$15 million to continue the Army's highly successful Neurofibromatosis Research Program (NFRP)**. The NFRP is now conducting clinical trials at nation-wide clinical trials centers created by NFRP funding. These clinical trials involve drugs that have already succeeded in eliminating tumors in humans and rescuing learning deficits in mice. Administrators of the Army program have stated that the number of high-quality scientific applications justify a much larger program.

What is Neurofibromatosis (NF)?

NF is a genetic disorder involving the uncontrolled growth of tumors along the nervous system that can result in terrible disfigurement, deformity, deafness, pain, blindness, brain tumors, cancer, and even death. In addition, approximately one-half of children with NF suffer from learning disabilities. There are three types of NF: NF1, which is more common, NF2, which initially involves tumors causing deafness and balance problems, and Schwannomatosis, the hallmark of which is severe pain.

NF is not rare. It is the most common neurological disorder caused by a single gene and is more common than Muscular Dystrophy and Cystic Fibrosis combined, but is not widely known because it has been poorly diagnosed for many years. It strikes worldwide, without regard to gender, race or ethnicity. Approximately 50 percent of new NF cases result from a spontaneous mutation in an individual's genes and 50 percent are inherited.

NF's Connection to the Military

Neurofibromatosis (NF) has become a clinical 'model' for advancing medical research. The genetic information learned from NF holds the key to understanding a number of health issues that benefit the war fighter, as well as the general population, including cancer, bone fracture and

repair, vascular disease, wound healing and nerve regeneration, behavior and psychosocial issues, learning disabilities, muscle weakness, and pain.

The Neurofibromatosis Research Program (NFRP) is providing critical research that directly benefits the War Fighter including:

Bone Repair - At least a quarter of children with NF1 have abnormal bone growth in any part of the skeleton. In the legs, the long bones are weak, prone to fracture and unable to heal properly; this can require amputation at a young age. Adults with NF1 also have low bone mineral density, placing them at risk of skeletal weakness and injury. The NFRP is a strong supporter of NF1 bone defects research and as a result this field has made significant progress in the past few years. Bone fractures sustained by the war fighter and how to repair them is of interest to the military. Research studies will identify new information about understanding bone biology and repair, and will pave the way to new strategies to enhancing bone health and facilitating repair.

Pain Management - Severe and unmanageable pain is seen in all forms of NF, particularly in schwannomatosis, and significantly impacts quality of life. NF research has shown similarities between NF pain and phantom limb pain. NFRP funding has been critical in supporting this. Chronic pain, and how to treat it effectively, is one of the most poorly understood areas of medicine, but has very high relevance to those in the military recovering from service-related injuries. NF Research in this area could help identify new ways to target pain effectively with the right drugs or therapies.

Nerve Regeneration and Wound Healing - NF often requires surgical removal of nerve tumors, which can lead to nerve paralysis and loss of nerve function. Understanding how nerves and skin might be regenerated and functionally restored will have significant quality of life value for affected individuals. Stem cell technology has enormous potential to help with tissue injury repair. The research aims to develop a rapid approach for taking a person's skin cells and differentiating them into cell types that need replacing after injury. This would include accelerating nerve repair and wound healing using these stem cells.

Behavioral and Brain Function - In the last couple of years, NFRP research has revealed common threads between NF1 learning disabilities, autism and other related disabilities. Research being done within the NF Clinical Trials Consortium, NFRP created clinical centers, has led to important findings and expanded research in this area. This research contributes to our broadening understanding of how brain signaling can impact on behavior and psychosocial difficulties. Members of the military returning from service can suffer from psychological trauma and it is not easy to understand how this can be effectively treated. As we learn more from the NF population about psychosocial function, we will be able to shed light on this area for the benefit of the military.

Muscle Weakness - There is growing evidence that children with NF1 have inherent low muscle tone and muscle weakness which impacts on quality of life. This emerging area of NF research has potentially broad relevance. This research opens up a new area of NF research and has potential broader application for recovery from military injuries in particular restoring optimal muscle function.

The Army's Contribution to NF Research

While other federal agencies support medical research, the Department of Defense (DOD) fills a special role by providing peer-reviewed funding for innovative and rewarding medical research through the CDMRP. CDMRP research grants are awarded to researchers in every state in the country through a competitive two-tier review process. These well-executed and efficient programs, including the NFRP, demonstrate the government's responsible stewardship of taxpayer dollars.

Recognizing NF's importance to both the military and to the general population, Congress has given the Army's NF Research Program strong bipartisan support. From FY96 through FY15 funding for the NFRP has amounted to \$287.85 million, in addition to the original \$8 million appropriated in FY92. In addition, between FY96 and FY13, 313 awards have been granted to researchers across the country.

The Army program funds innovative, groundbreaking research which would not otherwise have been pursued, and has produced major advances in NF research, including conducting clinical trials in a nation-wide clinical trials infrastructure created by NFRP funding, development of advanced animal models, and preclinical therapeutic experimentation. Because of the enormous advances that have been made as a result of the Army's NF Research Program, research in NF has truly become one of the great success stories in the current revolution in molecular genetics. In addition, the program has brought new researchers into the field of NF. However, despite this progress, Army officials administering the program have indicated that they could easily fund more applications if funding were available because of the high quality of the research applications received.

In order to ensure maximum efficiency, the Army collaborates closely with other federal agencies that are involved in NF research, such as the National Institutes of Health (NIH). Senior program staff from the National Institute of Neurological Disorders and Stroke (NINDS), for example, sits on the Army's NF Research Program Integration Panel which sets the long-term vision and funding strategies for the program. This assures the highest scientific standard for research funding, efficiency and coordination while avoiding duplication or overlapping of research efforts.

Thanks in large measure to this Subcommittee's support, scientists have made enormous progress since the discovery of the NF1 gene. Major advances in just the past few years have ushered in an exciting era of clinical and translational research in NF with broad implications for the general population. These recent advances have included:

- Phase II and Phase III clinical trials involving new drug therapies for both cancer and cognitive disorders;
- Creation of a National Clinical and Pre-Clinical Trials Infrastructure and NF Centers;
- Successful elimination of tumors in NF1 and NF2 mice with the same drug;
- Development of advanced mouse models showing human symptoms;
- Rescue of learning deficits and elimination of tumors in mice with the same drug;
- Determination of the biochemical, molecular function of the NF genes and gene products;
- Connection of NF to numerous diseases because of NF's impact on many body functions.

Fiscal Year 2016 Request

The Army's highly successful NF Research Program has shown tangible results and direct military application with broad implications for the general population. The program has now advanced to the translational and clinical research stages, which are the most promising, yet the most expensive direction that NF research has taken. Therefore, continued funding is needed to continue to build on the successes of this program, and to fund this promising research thereby continuing the enormous return on the taxpayers' investment.

We respectfully request that you include \$15 million in the Fiscal Year 2016 Department of Defense Appropriations bill for the Neurofibromatosis Research Program. With this subcommittee's continued support, we will prevail. Thank you for your support.

[Insert Subcommittee Name Here]

Witness Disclosure Form

Clause 2(g) of rule XI of the Rules of the House of Representatives requires non-governmental witnesses to disclose to the Committee the following information. A non-governmental witness is any witness appearing on behalf of himself/herself or on behalf of an organization other than a federal agency, or a state, local or tribal government.

<p>Your Name, Business Address, and Telephone Number:</p> <p><i>Kim Bischoff</i> <i>NeuroSensory Network</i> <i>213 S. Wheaton Ave.</i> <i>Wheaton, IL 60187 630-510-1115</i></p>
<p>1. Are you appearing on behalf of yourself or a non-governmental organization? Please list organization(s) you are representing.</p> <p><i>NeuroSensory Network</i></p>
<p>2. Have you or any organization you are representing received any Federal grants or contracts (including any subgrants or subcontracts) since October 1, 2012 related to the agencies or programs funded by the Subcommittee?</p> <p>Yes <input checked="" type="radio"/> No</p>
<p>3. Have you or any organization you are representing received any contracts or payments originating with a foreign government since October 1, 2012 related to the agencies or programs funded by the Subcommittee?</p> <p>Yes <input checked="" type="radio"/> No</p>
<p>4. If your response to question #2 and/or #3 is "Yes", please list the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof), and/or the amount and country of origin of any payment or contract originating with a foreign government. Please also indicate whether the recipient was you or the organization(s) you are representing.</p>

Signature: *Kim Bischoff*Date: *9-13-15*

**Written Testimony Submitted for the Record to the
House Committee on Appropriations Subcommittee on Defense
Regarding FY 2016 Funding for Infectious Disease Research and Development
On behalf of the American Society of Tropical Medicine and Hygiene
Christopher V. Plowe, MD, MPH, FASTMH, President & Founding Director, Institute for Global
Health at the University of Maryland School of Medicine**

The American Society of Tropical Medicine and Hygiene (ASTMH)—the principal professional membership organization representing, educating, and supporting scientists, physicians, clinicians, researchers, epidemiologists, and other health professionals dedicated to the prevention and control of tropical diseases—appreciates the opportunity to submit written testimony to the House Committee on Appropriations Subcommittee on Defense. According to Lt Gen Patricia Horoho, “historically, infectious diseases are responsible for more U.S. casualties than enemy fire.” Emerging infectious diseases do not recognize borders and “deficiencies in international state preparedness to address them remain a threat. Continued progress to address these emerging threats requires ongoing commitment to funding, developing personnel with expertise in infectious diseases, and maintaining stateside and overseas laboratory infrastructure and overseas field sites for clinical studies and response to contingencies.”¹

ASTMH respectfully requests that the Subcommittee expand funding for the Department of Defense’s (DoD) longstanding efforts to develop new and more effective drugs, vaccines, and diagnostics designed to protect our forces from infectious diseases, including funding for the important research efforts at the Walter Reed Army Institute of Research (WRAIR) and the U.S. Naval Medical Research Center (NMRC).

Tropical Medicine and U.S. Military Operations

The term “tropical medicine” refers to the wide-ranging clinical, research, and educational efforts of physicians, scientists, and public health professionals with a focus on the diagnosis, prevention, and treatment of diseases prevalent in the areas of the world with a tropical climate (but are also increasingly seen with the populations fleeing civil conflict as well as leisure travelers exploring new locations). Tropical diseases have the ability to blind, disable, disfigure, and can lead to death. Most tropical diseases are located in sub-Saharan Africa, parts of Asia (including the Indian subcontinent), Central and South America, and parts of the Middle East. These are the same areas where military troops are often deployed. Since many of the world’s developing nations and economies are located in these areas, tropical medicine tends to focus on diseases that impact the world’s most impoverished individuals.

DoD Research Protects the U.S. Military and Civilians and Contributes to Global Health

DoD’s Global Emerging Infections Surveillance and Response Systems (GEIS) enhances force health protection and global health security by focused coordination and support of international civil and military health networks to prevent, detect, and respond to emerging and priority microbial threats through infectious diseases surveillance, laboratory harmonization, capacity building, and scientific studies. During Operation United Assistance, the response to the most recent Ebola outbreak, the DoD has leveraged global health and medical countermeasure programs already in place, to support efforts in Ebola vaccine and therapeutic development, diagnostics and laboratory support, and training to ensure the safety of care providers and patients. Looking forward, more enduring support for tropical medicine/global health in those areas affected is warranted. Biosurveillance and response measures for emerging pathogens must be in place prior to the next event and ensure a timely and efficient response.

¹ Prepared Statement of Lieutenant General Patricia D. Horoho, The Surgeon General, United States Army before the U.S. Senate Appropriations Committee, Subcommittee on Defense.

A core component of the ASTMH membership works with and supports the work of the DoD, and we understand first-hand the important role that research and development play in protecting the warfighter from the threat of infectious diseases, as well as making meaningful contributions to civilian health. Specifically, DoD infectious disease research contributes to:

- The protection of U.S. troops deployed, or likely to be deployed, in many tropical and limited resource areas;
- The safety of U.S. citizens, working, traveling, participating in volunteer work, and vacationing overseas who are impacted by these same tropical diseases;
- Protecting the U.S. from agents responsible for these diseases, which could be introduced and become established in the U.S. (as was the case with West Nile virus), or might even be weaponized; and
- Positively impacting people around the world who suffer disability and death from many of these same tropical diseases.

Walter Reed Army Institute of Research

A large part of DoD investments in infectious disease research and development are facilitated through WRAIR. Some of WRAIR's major accomplishments include:

- Conducted clinical trials of a *P. vivax* vaccine candidate, the first human subject challenge model to test vaccine efficacy;
- Developed the world's only dedicated cutaneous leishmaniasis drug development program;
- First identified HIV-1 heterosexual transmission and showed efficacy of an HIV vaccine, through the Military HIV Research Program; and
- Developed new Japanese encephalitis and hepatitis A vaccines.²

WRAIR has advanced its work through critical public private partnerships and collaborative efforts with entities such as

- GlaxoSmithKline and Sanofi;
- Non-profit organizations such as the Bill & Melinda Gates Foundation, Medicines for Malaria Venture, and PATH;
- Universities such as the University of Maryland and SUNY Upstate Medical University; and,
- Other U.S. agencies including the Centers for Disease Control and Prevention (CDC), USAID, and the National Institutes of Health (NIH).

WRAIR worked in collaboration with PATH Malaria Vaccine Initiative and GlaxoSmithKline to develop the malaria vaccine candidate, RTS,S, which recently underwent the first ever large-scale Phase 3 trial for a malaria vaccine. The vaccine candidate was shown to decrease clinical episodes of malaria in children in Africa and may protect them for up to 18 months. While we await the final RTS,S results and the promise that it brings for children living in malaria-endemic countries, RTS,S is not suitable as a vaccine for adults who have never experienced malaria during childhood, such as our military personnel. As a result, there remains a significant need for continued research funding in order to achieve more robust results.

WRAIR is headquartered in Silver Spring, Maryland, and has facilities around the globe including U.S. Army Medical Research Unit—Europe (USAMRU-E) in Heidelberg, Germany; U.S. Armed Forces Research Institute of Medical Sciences (AFRIMS) in Bangkok, Thailand; U.S. Army Medical Research Unit in Nairobi,

² WRAIR Website: <http://wrair-www.army.mil/documents/wrair%20overview.pdf>

Kenya (USAMRU-K)³. This diversity in research capacity puts WRAIR in a unique leadership position in research and development for tropical diseases—research that aids our military men and women as well as people living in disease-endemic countries.

United States Naval Medical Research Center

NMRC and its affiliated labs conduct basic and applied research in infectious diseases. NMRC is an active participant in global health security efforts and focuses on mitigating the spread of antimicrobial resistance and malaria. The Infectious Disease Directorate (IDD) of NMRC focuses on malaria, enteric diseases, and viral and rickettsial diseases. IDD conducts research on infectious diseases that are considered to be a significant threat to our deployed sailors, marines, soldiers, and airmen.

The primary objective of the Navy Malaria Program is to develop a vaccine that kills the parasite during the first few days of development in the liver, before it breaks into the blood. The program is also investigating vaccines that would target blood-stage infection to limit the severity of symptoms associated with this stage. Both of these vaccines could alleviate much of the suffering caused by this parasite in tropical areas.

The research is enhanced by IDD's close working relationship with the Navy's three overseas medical research laboratories located in Peru, Egypt, and the Pacific region. These laboratories, like those of WRAIR, afford diplomatic advancement through the close working relationships they have developed with governments and citizens of those countries. ASTMH has heard first-hand accounts of the successful diplomatic impact that both the WRAIR and NMRC overseas laboratories have on the communities where they are guests. Many of the researchers and staff who work in the laboratories are local to the area and speak highly of the role and contributions of the U.S. military laboratories.

Case Studies - The Importance of DoD's Infectious Disease Research Efforts

Malaria claimed 540,000 lives in 2013, according to the latest World Health Organization (WHO) estimates, and prevention remains a global health priority. **Malaria has resulted in the loss of more person-days among U.S. military personnel than to bullets during every military campaign fought in malaria-endemic regions during the 20th century.**

Because service members deployed by the U.S. military comprise a majority of the healthy adults traveling each year to malarial regions on behalf of the U.S. government, the U.S. military has understandably taken a primary role in the development of antimalarial drugs. Nearly all of the most effective and widely used antimalarials were developed in part by U.S. military researchers, which is a remarkable accomplishment. Drugs that now continue to save civilians throughout the world were originally developed by the U.S. military to protect troops serving in tropical regions during WWII, the Korean War, and the Vietnam War.

In recent years the broader international community has increased its efforts to reduce the impact of malaria in the developing world, particularly by reducing childhood malaria mortality, and the U.S. military plays an important role in this broad partnership. Nonetheless, military malaria researchers at NMRC and WRAIR are working practically alone in the area most directly related to U.S. national security: drugs and vaccines designed to protect or treat healthy adults with no developed resistance to malaria who travel to malaria-endemic regions. NMRC and WRAIR are working on the development of a malaria vaccine and on malaria diagnostics and other drugs to treat malaria—an especially essential investment as current malaria drugs face signs of drug resistance.

³ WRAIR Website: <http://wrair-www.army.mil/WRAIRSubordinateCommands.aspx>

The latest generation of malaria medicines is increasingly facing drug-resistance, which heightens the threat to global health security. The most deadly variant of malaria parasite—*Plasmodium falciparum*—is believed by the World Health Organization to have become resistant to “nearly all antimalarials in current use.” The malaria parasite demonstrates a notorious and consistent ability to quickly develop resistance to new drugs. Malaria parasites in Southeast Asia have already shown resistance to the most recently developed anti-malarial drug, artemisinin, and the specter of truly untreatable malaria is a “real and present danger.”⁴

Developing new antimalarials as quickly as the parasite becomes resistant to existing ones is an extraordinary challenge, and one that requires significant resources before resistance becomes widespread, especially as U.S. military operations in malaria-endemic countries of Africa and Asia increase. Without new antimalarials to replace existing drugs as they become obsolete, military operations could be halted in their tracks by malaria. The 2003 malaria outbreak affecting 80 of 220 Marines in Liberia is an ominous reminder of the impact of malaria on military operations. Service members returned to Liberia last October for Operation United Assistance, an operation supporting the U.S. Agency for International Development-led efforts to contain the Ebola virus outbreak in western Africa. However, the threat malaria was much greater than Ebola. At the time, an Army Captain was quoted as saying, “Right now, based on current statistics, someone who is unprotected from malaria has a 50 percent chance per month of getting malaria in Liberia. Mathematically, statistically, in every way you look at it, malaria is the biggest killer.”⁵ Humanitarian missions also place Americans at risk of malaria, as evidenced by several Americans contracting malaria while supporting Haitian earthquake relief efforts.

Leishmaniasis is a vector-borne disease that comes in several forms, the most serious of which is visceral leishmaniasis (VL), which affects internal organs and is deadly if left untreated. According to the WHO, there are 1.3 million new cases of leishmaniasis annually and it kills between 20,000 and 30,000 people. VL has between 200,000 and 400,000 new cases annually.⁶ Co-infection of leishmaniasis and HIV is becoming increasingly common, and WHO notes that because of a weakened immune system, leishmaniasis can lead to an accelerated onset of AIDS in HIV-positive patients.

Because of leishmaniasis’ prevalence in Iraq and Afghanistan, DoD has spent time and resources on the development of new diagnostics and new drugs for the treatment of cutaneous leishmaniasis. As more troops return from Iraq and Afghanistan, it is likely DoD and the Department of Veterans Affairs will see an increase in leishmaniasis cases in our soldiers. WRAIR discovered and developed a topical treatment for cutaneous leishmaniasis that, once FDA approved, will be the world’s first topical treatment for this chronic and disfiguring disease. While essential for the safety of our servicemen and women abroad, these types of innovations will also be extremely beneficial to at-risk populations worldwide living in leishmaniasis-endemic countries.

Dengue fever (“breakbone fever”), according to the WHO, is the most common of all mosquito-borne viral infections. About 2.5 billion people live in places where dengue infection can be transmitted by mosquitoes, and last year we saw cases that were transmitted by local mosquitoes in the U.S. There are four different viruses that can cause dengue infections. While infection from one of the four viruses will

⁴ http://csis.org/files/publication/141202_Plowe_DangerUntreatableMalaria_Web.pdf

⁵ U.S. Army. *Biggest threat to U.S. troops in Liberia is malaria, not Ebola*. Retrieved from: http://www.army.mil/article/139340/Biggest_threat_to_U_S_troops_in_Liberia_is_malaria__not_Ebola/

⁶ World Health Organization: <http://www.who.int/mediacentre/factsheets/fs375/en/>

leave persons immune to that strain of the virus, it does not prevent them from contracting the other three, and subsequent infections can often be more serious. The DoD has seen about 28 cases of dengue in soldiers per year. While none of these cases resulted in the death of a soldier, hospitalization time is lengthy. As troops rebalance to the Pacific, they will deploy to areas plagued with dengue. Experts predict that infectious diseases will be the primary cause of hospitalization of U.S. military in the Asia-Pacific region. Currently, there are several research and development efforts under way within the DoD both for treatments and vaccines for dengue.

U.S. Government Action is needed for Mission Readiness

Recent events only strengthen the case for increased investments in research and development that will protect our troops, prepare us for the foremost health security threats, and enable us to prevent and control the spread of infectious diseases and respond to the potential challenge of drug resistance. A more interconnected world is increasing opportunities for infectious diseases to emerge and spread globally, as demonstrated with last year's Ebola outbreak. Considered to be the worst in history, the outbreak impacted nine countries including the U.S. More than 25,000 people were infected and over 10,000 people died worldwide. The outbreak underscored the need for a robust U.S. investment in R&D that will enable us to have the necessary tools at the ready for the next infectious disease global health challenge.

The role of infectious diseases in the success or failure of military operations is often overlooked. Even a cursory review of U.S. and world military history, however, underscores that the need to keep military personnel safe from infectious diseases is critical to mission success. Ensuring the safety of those men and women in future conflicts and deployments will require research to develop new tools. Additional funds and a greater commitment from the federal government are necessary to make progress in tropical diseases prevention, treatment, and control.

Although several promising new infectious disease drugs are in development at WRAIR and NMRC, the U.S. government's funding level for these programs has been anemic for several years. There are indications that the current budget process may decrease or not keep up with medical research inflation, let alone increase in real dollars, despite burgeoning evidence that many of our military's current drugs are rapidly approaching obsolescence.

Fortunately, a relatively small amount of increased funding for this program would restore the levels of research and development investment required to produce the drugs that will safeguard U.S. troops. In relation to the overall DoD budget, funding for infectious diseases research programs is very small. While we understand there are tough choices to make in this fiscal environment, cutting funding for this program would deal a major blow to the military's efforts to reduce the impact of these diseases on soldiers and civilians alike, thereby undercutting both the safety of troops deployed to tropical climates and the health of civilians in those regions.

ASTMH feels strongly that increased support for efforts to reduce this threat is warranted and we look forward to collaborating with the Subcommittee on efforts to maximize the health and safety of all military troops. A more substantial investment will not only help to protect American soldiers, but potentially save the lives of millions of individuals around the world. We thank you for your leadership and appreciate the opportunity to share our views in our testimony. Please be assured that ASTMH stands ready to serve as a resource on this and any other tropical diseases policy matter.

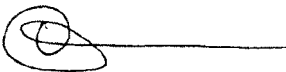
House LHHS Appropriations Subcommittee

Witness Disclosure Form

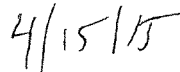
Clause 2(g) of rule XI of the Rules of the House of Representatives requires non-governmental witnesses to disclose to the Committee the following information. A non-governmental witness is any witness appearing on behalf of himself/herself or on behalf of an organization other than a federal agency, or a state, local or tribal government.

<p>Your Name, Business Address, and Telephone Number: Christopher V. Plowe, MD, MPH, FASTMH Founding Director, Institute for Global Health University of Maryland School of Medicine 685 West Baltimore Street, HSF I Room 480, Baltimore, MD 21201 Phone: 410-706-2491</p>
<p>1. Are you appearing on behalf of yourself or a non-governmental organization? Please list organization(s) you are representing.</p> <p>American Society of Tropical Medicine and Hygiene</p>
<p>2. Have you or any organization you are representing received any Federal grants or contracts (including any subgrants or subcontracts) since October 1, 2012 related to the agencies or programs funded by the Subcommittee?</p> <p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>
<p>3. Have you or any organization you are representing received any contracts or payments originating with a foreign government since October 1, 2012 related to the agencies or programs funded by the Subcommittee?</p> <p>Yes <input checked="" type="radio"/> No</p>
<p>4. If your response to question #2 and/or #3 is "Yes", please list the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof), and/or the amount and country of origin of any payment or contract originating with a foreign government. Please also indicate whether the recipient was you or the organization(s) you are representing.</p>

Signature:



Date:



Tuberculosis Roundtable
 Nuala Moore
 Associate Director of Government Relations
 American Thoracic Society
 1150 18th St. N.W., Suite 300
 Washington, CD 20036
 (202) 296.9770
 Nmoore@thoracic.org

The TB Roundtable, a coalition of over 15 research, public health and health professional associations working to support global and domestic tuberculosis (TB) control and research, thanks the subcommittee for this opportunity to provide written testimony to discuss important health threats to our military, including TB. Our testimony will outline the importance of TB research and development dollars to our nation's military. We are writing to request that you restore TB, a deadly airborne infectious disease, to the Congressionally Directed Medical Research Program (CDMRP) Peer Reviewed Medical Research Program (PRMRP) disease list in Fiscal Year (FY) 2016 DoD appropriations legislation.

The men and women in our Armed Forces are responsible for protecting our nation from threats domestically and abroad. A critical element of DoD's mission is supporting infectious disease research, which it conducts at various facilities such as the Walter Reed Army Institute of Research and the Naval Medical Research Center.

Since DoD cannot programmatically fund every disease that could cause harm to our nation's military personnel, Congress fills this gap in research through the CDMRP, which presents a critical opportunity for Congress to directly influence research funding by providing a list of approved diseases eligible for competitive grant opportunities via the PRMRP. For unknown reasons, TB was removed from this list in FY 2013 after being included in FY 2012.

TB is the second leading infectious disease killer globally, with 1.5 million people dying from the disease in 2013. Additionally, 9 million people developed active TB in 2013, with 480,000 of those cases being multidrug-resistant (MDR-TB). A further 9% of those cases were extensively drug-resistant (XDR), which can kill up to 70% of those infected. While these statistics are alarming, even more concerning is the lack of research funding going towards new tools and treatments for one of mankind's oldest diseases. The current vaccine for TB, BCG, is over 90 years old and its effectiveness decreases after infancy, leaving adolescents and adults without any protection. Current treatment regimens are long, expensive, and difficult to implement in many parts of the world. Treatment side effects are serious and long-lasting, including permanent hearing loss.

Our military's global footprint means that American military men and women are posted in countries or regions that experience high rates of TB infection. For instance, in Europe where 80,000 troops and dependents are stationed, there were 360,000 cases of TB and 74,000 cases of MDR-TB last year. In the East Asia/Pacific region, more than 80,000 troops and dependents

live amidst 2.3 million cases of TB and 88,000 cases of MDR-TB, according to the most recent World Health Organization estimate.

Pacific Pathways, a recently created Army short rotation program, puts American forces directly in countries with high TB burdens such as India, the Philippines, and Indonesia, and cycles them back to bases in the Pacific and the U.S. This program could potentially create a migration pattern for TB from high burden East Asia and Pacific countries directly back to the United States. Worse still, drug resistant TB is contagious and poses a serious threat to public health in the U.S., according to the U.S. Centers for Disease Control and Prevention.

In addition to threatening our military, TB poses tremendous difficulties for many of our allies abroad. The U.S. military recently completed its mission in West Africa to help health systems deal with the tragic Ebola outbreak. While Ebola is a fast-acting but relatively difficult-to-transmit disease, a person with active TB can live for years while spreading the disease to other people. Outbreaks of MDR-TB around the world could cause drug shortages and severe economic consequences. Increased funding for TB research and development could make this scenario less likely in the future.

For these reasons, more research into TB and related vaccine technologies, treatments, and diagnostics is imperative if we want to avoid tragic scenarios of MDR-TB outbreaks in the future. TB was included on the approved disease list in the FY2012 CDMRP PRMRP, and it is time to recognize that this disease continues to pose a true threat to our military and the American public. We therefore strongly encourage you to include TB in the FY 2016 CDMRP PRMRP.

[Insert Subcommittee Name Here]

Witness Disclosure Form

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<p>Your Name, Business Address, and Telephone Number:</p> <p>NUALA MOORE 1150 18th ST. N.W. SUITE 300 WDC 20036 (202) 296. 9770</p>
<p>1. Are you appearing on behalf of yourself or a non-governmental organization? Please list organization(s) you are representing. NGO TB (TUBERCULOSIS) ROUNDTABLE AMERICAN THORACIC SOCIETY</p>
<p>2. Have you or any organization you are representing received any Federal grants or contracts (including any subgrants or subcontracts) since October 1, 2012 related to the agencies or programs funded by the Subcommittee?</p> <p>Yes <input checked="" type="radio"/> No</p>
<p>3. Have you or any organization you are representing received any contracts or payments originating with a foreign government since October 1, 2012 related to the agencies or programs funded by the Subcommittee?</p> <p>Yes <input checked="" type="radio"/> No</p>
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Signature:

Nuala S. Moore

Date:

4/15/15

Written Statement

**On Behalf of the Ovarian Cancer National Alliance, the Society of Gynecologic Oncology, and the American Congress of Obstetricians and Gynecologists
House Appropriations Subcommittee on Defense
Congressionally Directed Medical Research Program:
Department of Defense Ovarian Cancer Research Program
April 15, 2015**

The Ovarian Cancer National Alliance (the Alliance), the Society of Gynecologic Oncology (SGO), and the American Congress of Obstetricians and Gynecologists (ACOG) thank the Subcommittee for the opportunity to submit comments for the record regarding the Alliance, SGO, and ACOG's fiscal year (FY) 2016 funding recommendations. We believe these recommendations are critical to ensure that advances can be made to help reduce and prevent suffering from ovarian cancer. For the last 18 years, the ovarian cancer community has worked to increase awareness of ovarian cancer and advocated for additional federal resources to support research that would lead to more effective diagnostics and treatments.

The Ovarian Cancer National Alliance is the foremost advocacy organization for all those touched by ovarian cancer, uniting the efforts of survivors, caretakers, and health care professionals to bring national attention to this disease. The Alliance advocates on a national level for increased ovarian cancer research and for policies which allow women with ovarian cancer access to quality medical treatment. The Alliance also educates health care professionals about – and raises public awareness of – the risks and symptoms of ovarian cancer.

The Society of Gynecologic Oncology is a national medical specialty organization of physicians who are trained in the comprehensive management of women with malignancies of the reproductive tract. Its purpose is to improve the care of women with gynecologic cancer by encouraging research, disseminating knowledge which will raise the standards of practice in the prevention and treatment of gynecologic malignancies and cooperating with other organizations interested in women's health care, oncology and related fields.

The American Congress of Obstetricians and Gynecologists, representing more than 58,000 members, is the nation's leading group of physicians providing health care for women. ACOG is dedicated to the advancement of women's health care through continuing medical education, practice, research and advocacy.

As part of these efforts, the Alliance, SGO and ACOG advocate for continued federal investment in the Department of Defense Congressionally Directed Medical Research Programs (CDMRP). **The Alliance, SGO and ACOG respectfully request that the House Appropriations Subcommittee on Defense maintain the Fiscal Year 2015 funding level of \$20 million for the Department of Defense Ovarian Cancer Research Program (DoD OCRP) in FY 2016.**

The DoD OCRP, which belongs to US Army Medical Research and Materiel Command (USAMRMC), complements but does not duplicate the important ovarian cancer research carried out by the National Cancer Institute (NCI). First, the OCRP funds innovative, high risk, high reward research which many large, non-DoD Federal research agencies do not have the flexibility to engage in. For ovarian cancer research, we believe that OCRP program is the sole funding source for innovative, groundbreaking research.

Second, the OCRP is designed to prevent funding research that overlaps with other ovarian cancer research that has been funded by the NCI, other agencies or private foundations. Before

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and American Congress of Obstetricians and Gynecologists**

funding an award, OCRP grant managers at the DoD are required to thoroughly check all sources of information to determine if a proposal is redundant of a previous OCRP grant or a grant awarded by another federal agency such as the NCI or by a private foundation.

Third, the OCRP pushes investigators to make rapid progress in their research by requiring them to reapply every funding cycle. Because proposal reviews conducted by the OCRP are double blinded by investigator and research institution, an investigator's progress is evaluated on its own merit and must have sufficient new findings, data or ideas to warrant new funding. The OCRP's unique method of funding ovarian cancer research has yielded tremendous breakthroughs in the fight against ovarian cancer, such as:

- a new treatment using nanoparticles to deliver diphtheria toxin-encoding DNA to ovarian cancer cells, leaving healthy cells unaffected;
- the discovery of a compound that potentially inhibits a form of ovarian cancer that makes up 40% of ovarian cancer tumors;
- the finding that ovarian cancer cells are sensitive to glucose deprivation and resveratrol treatment;
- identifying the earliest molecular changes associated with BRCA1- and BRCA2-related ovarian cancers, leading to biomarker identification for early detection; and
- development of a blood test, OVA-1 that has been cleared by the FDA for use by physicians to determine a level of risk regarding whether a woman's pelvic mass is malignant.

Cancer research performed by the DoD has been responsible for fundamentally changing the way cancer research is conducted. Many innovative practices and methods created by the CDRMPs have been adopted by the NCI, such as the use of cancer patients as consumer reviewers in the proposal review process.

Also, the CDRMP has created funding mechanisms to incentivize research, such as the Idea Award, that would fill voids in our understanding of cancer. Additionally, large ovarian cancer research teams do not exist in many academic medical or research centers. In order to provide much needed mentoring, networking and a peer group for young ovarian cancer researchers, the OCRP created an Ovarian Cancer Academy award in FY 2009. The OCRP Ovarian Cancer Academy is growing and meeting its potential of developing a unique, interactive virtual academy that provides intensive mentoring, national networking, and a peer group for junior faculty. The overarching goal of this award is to develop young scientists into the next generation of successful and highly productive ovarian cancer researchers within a collaborative and interactive research training environment.

A modest research program that creates jobs

The OCRP remains a modest program compared to the other cancer programs in the CDMRP, with approximately \$20 million in annual funding since FY 2009. However, even with limited funding, the OCRP has been able to make vast strides in the fight against ovarian cancer with relatively few resources. With flat funding for FY16, the program can maintain current levels of research regarding ovarian cancer screening, early diagnosis and treatment of ovarian cancer.

In a time that necessitates fiscal constraint, the OCRP has been designed to fund ovarian cancer research with extremely low overhead: less than 6 percent of the federal funding is used for administration costs to operate the program.

**The Ovarian Cancer National Alliance, Society of Gynecologic Oncology
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Additionally, biomedical research, such as that conducted through the DoD OCRP, is a major provider of jobs in the United States economy. A 2008 Families USA study found that for every NIH dollar invested in states two dollars of economic output were created. Additionally, the report estimated that approximately 350,000 jobs were supported by medical research in 2007.

Impact on healthcare costs

Of the 850,000 female service members, wives of active duty military and adult daughters of active duty military [1], approximately 11,800 will be diagnosed with ovarian cancer over the course of their lifetimes [2]. Over the last five years alone, nearly 2,600 members of our military or their families have been hospitalized for ovarian cancer or suspected ovarian cancer. It is clear that the cost of ovarian cancer to our military is great, not only in terms of troop readiness, but also in terms of cancer care costs: treating all of these cases of ovarian cancer over these patients' lifetimes could cost TRICARE an estimated \$971.2 million [3]. TRICARE's potential costs to care for women with ovarian cancer could fund the OCRP for nearly 50 years at its current funding level.

Ovarian cancer's deadly statistics

In the 45 years since the War on Cancer was declared, ovarian cancer mortality rates have not significantly improved. We are very concerned that without continued funding in FY 2016 for the DoD OCRP to continue ovarian cancer research efforts, the nation will continue to see growing numbers of women losing their battle with ovarian cancer.

According to the American Cancer Society, it is estimated that in 2015, more than 21,000 American women will be diagnosed with ovarian cancer, and approximately 14,180 will lose their lives to this terrible disease. Ovarian cancer is the fifth leading cause of cancer death in women. Currently, more than half of the women diagnosed with ovarian cancer will die within five years. When detected early, the five-year survival rate increases to more than 90 percent, but when detected in the late stages, the five-year survival rate drops to less than 29 percent.

A valid and reliable screening test – a critical tool for improving early diagnosis and survival rates – still does not exist for ovarian cancer. Behind the sobering statistics are the lost lives of our loved ones, colleagues and community members. While we have been waiting for the development of an effective early detection test, thousands of our mothers, daughters, sisters and friends have lost their battle with ovarian cancer.

In 2007, a number of prominent cancer organizations released a consensus statement identifying the early warning symptoms of ovarian cancer. Without a reliable diagnostic test, we can rely only on this set of vague symptoms of a deadly disease, and trust that both women and the medical community will identify these symptoms and act promptly and quickly. Unfortunately, we know that this does not always happen. Too many women are diagnosed at late stage due to the lack of a test; too many women and their families endure life-threatening and debilitating treatments to kill cancer; too many women are lost to this horrible disease.

Our organizations exist to ensure that women are diagnosed early, receive appropriate treatments, are active participants in their care and not just survive, but thrive. All women should have access to treatment by a gynecologic oncology specialist. All women should have access to a valid and reliable detection test. We must deliver new and better treatments to patients and the physicians and nurses who treat them. Until we have a test, we must continue to increase awareness and educate women and health professionals about the signs and symptoms associated with this disease.

**The Ovarian Cancer National Alliance, Society of Gynecologic Oncology
and American Congress of Obstetricians and Gynecologists**

The symptoms of ovarian cancer are:

- Bloating
- Pelvic or abdominal pain
- Difficulty eating or feeling full quickly
- Urinary symptoms (urgency or frequency)

Women who have these symptoms almost daily for more than a few weeks should see their doctor, preferably a gynecologist. Prompt medical evaluation may lead to detection at the earliest possible stage of the disease. Early stage diagnosis is associated with an improved prognosis.

Summary

The Ovarian Cancer National Alliance, the Society of Gynecologic Oncology, and the American Congress of Obstetricians and Gynecologists maintain a long-standing commitment to work with Congress, the Administration, and other policymakers and stakeholders to improve the survival rate from ovarian cancer through education, public policy, research and communication. Please know that we appreciate and understand that our nation faces many challenges and that Congress has limited resources to allocate; however, we are concerned that without the funding to maintain ovarian cancer research efforts at the Department of Defense, the nation will continue to see growing numbers of women losing their battle with this terrible disease.

On behalf of the entire ovarian cancer community – patients, family members, clinicians and researchers – we thank you for your leadership and support of federal programs that seek to reduce and prevent suffering from ovarian cancer. **Thank you in advance for your support of \$20 million in FY 2016 funding for the Department of Defense Ovarian Cancer Research Program.**

[Insert Subcommittee Name Here]

Witness Disclosure Form

Clause 2(g) of rule XI of the Rules of the House of Representatives requires non-governmental witnesses to disclose to the Committee the following information. A non-governmental witness is any witness appearing on behalf of himself/herself or on behalf of an organization other than a federal agency, or a state, local or tribal government.

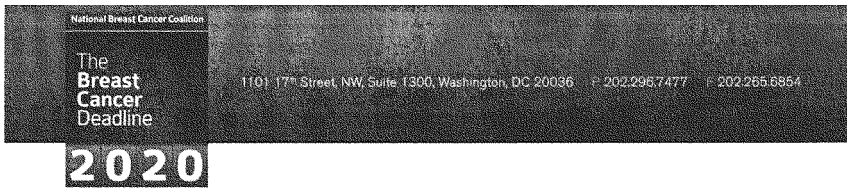
Your Name, Business Address, and Telephone Number: Jill Rethman Society of Gynecologic Oncology 624 S. Highland St. ARL, VA 22204, 703-217-7224		Rachel Gardell American Congress of OB/GYN 404 12th St. SE WDC, 20004 202-638-5577 Laura Koontz Ovarian Cancer National Alliance 1101 14th Street, NW Suite 850 WDC 20005, 202-331-1132
1. Are you appearing on behalf of yourself or a non-governmental organization? Please list organization(s) you are representing. Society of Gynecologic Oncology (SGO) Ovarian Cancer National Alliance (OCNA) American Congress of Obstetricians and Gynecologists (ACOG)		
2. Have you or any organization you are representing received any Federal grants or contracts (including any subgrants or subcontracts) since October 1, 2012 related to the agencies or programs funded by the Subcommittee? Yes <input type="radio"/> No <input checked="" type="radio"/>		
3. Have you or any organization you are representing received any contracts or payments originating with a foreign government since October 1, 2012 related to the agencies or programs funded by the Subcommittee? Yes <input type="radio"/> No <input checked="" type="radio"/>		
4. If your response to question #2 and/or #3 is "Yes", please list the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof), and/or the amount and country of origin of any payment or contract originating with a foreign government. Please also indicate whether the recipient was you or the organization(s) you are representing.		

Signature:



Date:

4/15/2015



**Testimony of
Fran Visco, J.D.
President
National Breast Cancer Coalition**

House Appropriations Subcommittee on Defense

April 15, 2015

Thank you, Mr. Chairman and members of the Appropriations Subcommittee on Defense, for the opportunity to submit testimony about a program that has made a significant difference in the lives of women and their families.

I am Fran Visco, a 27-year breast cancer survivor, a wife and mother, a lawyer, and President of the National Breast Cancer Coalition (NBCC). My testimony represents the hundreds of member organizations and thousands of individual members of the Coalition. NBCC is a grassroots organization dedicated to ending breast cancer through action and advocacy. Since its founding in 1991, NBCC has been guided by three primary goals: to increase federal funding for breast cancer research and collaborate with the scientific community to implement new models of research; improve access to high quality health care and breast cancer clinical trials for all women; and expand the influence of breast cancer advocates wherever breast cancer decisions are made. In 2010, to restore the sense of urgency in the fight to end the disease, NBCC launched **Breast Cancer Deadline 2020[®]** - a deadline to know how to end breast cancer by January 1, 2020.

Chairman Frelinghuysen and Ranking Member Visclosky, we appreciate your support for the Department of Defense peer reviewed Breast Cancer Research Program. As you know, this program was born from a powerful grassroots effort led by NBCC and has become a unique partnership among consumers, scientists, Members of Congress and the military. You, your predecessors, and your Committee have shown great determination and leadership in funding the Department of Defense (DOD) peer reviewed Breast Cancer Research Program (BCRP) at a level that has brought us closer to ending this disease. I am hopeful that you and your Committee will continue that determination and leadership.

I know you recognize the importance of this program to women and their families across the country, including those currently serving in the military, to the scientific and health care communities and to the Department of Defense. Much of the progress that has been made in the

fight against breast cancer is due to the Appropriations Committee's investment in breast cancer research through the DOD BCRP. To support this progress moving forward, we ask that you support a \$150 million appropriation for Fiscal Year (FY) 2016. In order to continue the success of the Program, you must also ensure that it maintains its integrity and separate identity, in addition to this funding. This is important not just for breast cancer, but for all biomedical research that has benefited from this incredible government program.

Vision and Mission

The vision of the Department of Defense peer reviewed Breast Cancer Research Program is to "eradicate breast cancer by funding innovative, high-impact research through a partnership of scientists and consumers." The meaningful and unprecedented partnership of scientists and consumers has been the foundation of this model program from the very beginning. It is important to understand this collaboration: consumers and scientists working side by side, asking the difficult questions, bringing the vision of the program to life, challenging researchers and the public to do what is needed and then overseeing the process every step of the way to make certain it works. This unique collaboration is successful: every year researchers submit proposals that reach the highest level asked of them by the program and every year we make progress for women and men everywhere.

And it owes its success to the dedication of the U.S. Army and their belief and support of this mission. And of course, to you. It is these integrated efforts that help make this program unique.

The Department of the Army must be applauded for overseeing the DOD BCRP which has established itself as a model medical research program, respected throughout the cancer and broader medical community for its innovative, transparent and accountable approach. This program is incredibly streamlined. The flexibility of the program has allowed the Army to administer it with unparalleled efficiency and effectiveness. Because there is little bureaucracy, the program is able to respond quickly to what is currently happening in the research community. Its specific focus on breast cancer allows it to rapidly support innovative proposals that reflect the most recent discoveries in the field. It is responsive, not just to the scientific community, but also to the public. The pioneering research performed through the program and the unique vision it maintains have the potential to benefit not just breast cancer, but all cancers as well as other diseases. Biomedical research is literally being transformed by the DOD BCRP.

Consumer Participation

Advocates bring a necessary perspective to the table, ensuring that the science funded by this program is not only meritorious, but that it is also meaningful and will make a difference in people's lives. The consumer advocates bring accountability and transparency to the process. They are trained in science and advocacy and work with scientists willing to challenge the status quo to ensure that the science funded by the program fills important gaps not already being addressed by other funding agencies. Since 1992, more than 870 breast cancer survivors have served on the BCRP review panels.

Seven years ago, Karin Noss, a retired Air Force Lieutenant Colonel who served almost 21 years on active duty as a missile launch officer and intelligence analyst, chaired the Integration Panel. Karin was 36 years old when she discovered a lump that was misdiagnosed by mammography and clinical exam; just over one year later, however, she was diagnosed with Stage II breast cancer. Her diagnosis inspired her to become knowledgeable about her disease, and as a trained consumer advocate she began participating as a consumer reviewer on BCRP scientific peer review panels in 1997. Karin was committed to making a difference and ensuring that the voice of consumer advocates was heard by the scientific community, challenging scientists to think differently.

Karin worked tirelessly in support of the BCRP through the pain and fatigue of metastatic breast cancer. She died of the disease in September 2008. Just a few weeks before her passing, Karin served what would be her final role for the BCRP when she chaired the FY08 Vision Setting Meeting, an important milestone at which the program determines which award mechanisms to offer in order to move research forward. She said that:

Consumer involvement in all facets of the BCRP has proven crucial to ensuring not only that the best and most innovative science gets funded, but that the science will really make a difference to those of us living with the disease.

Karin demonstrated an amazing strength, determination, and commitment to eradicating breast cancer. She was an optimist, determined to make things better for women with breast cancer whose legacy reminds us that breast cancer is not just a scientific issue; it is a disease that affects people. The consumers who sit alongside the scientists at the vision setting, peer review and programmatic review stages of the BCRP are there to ensure that no one forgets the women who have died from this disease and to keep the program focused on its vision.

For many consumers, participation in the program is “life changing” because of their ability to be involved in the process of finding answers to this disease. In the words of one advocate:

Participating in the peer review and programmatic review has been an incredible experience. Working side by side with the scientists, challenging the status quo and sharing excitement about new research ideas...it is a breast cancer survivor's opportunity to make a meaningful difference. I will be forever grateful to the advocates who imagined this novel paradigm for research and continue to develop new approaches to eradicate breast cancer in my granddaughters' lifetime.--Marlene McCarthy, three-time breast cancer “thrivor”, Rhode Island Breast Cancer Coalition

Scientists who participate in the Program agree that working with the advocates has changed the way they do science. Let me quote Greg Hannon, the FY10 DOD BCRP Integration Panel Chair:

The most important aspect of being a part of the BCRP, for me, has been the interaction with consumer advocates. They have currently affected the way that I think about breast cancer, but they have also impacted the way that I do science more generally. They are a constant reminder that our goal should be to impact people's lives.--Greg Hannon, PhD, Cold Spring Harbor Laboratory

Unique Structure

The DOD BCRP uses a two-tiered review process for proposal evaluation, with both steps including scientists as well as consumers. The first tier is scientific peer review in which proposals are weighed against established criteria for determining scientific merit. The second tier is programmatic review conducted by the Integration Panel (composed of scientists and consumers) that compares submissions across areas and recommends proposals for funding based on scientific merit, portfolio balance and relevance to program goals.

Scientific reviewers and other professionals participating in both the peer review and the programmatic review process are selected for their subject matter expertise. Consumer participants are recommended by an organization and chosen on the basis of their experience, training and recommendations.

The BCRP has the strictest conflict of interest policy of any research funding program or institute. This policy has served it well through the years. Its method for choosing peer and programmatic review panels has produced a model that has been replicated by funding entities around the world.

It is important to note that the Integration Panel that designs this Program has a strategic plan for how best to spend the funds appropriated. This plan is based on the state of the science – both what scientists and consumers know now and the gaps in our knowledge – as well as the needs of the public. While this plan is mission driven, and helps ensure that the science keeps that mission of eradicating breast cancer in mind, it does not restrict scientific freedom, creativity or innovation. The Integration Panel carefully allocates these resources, but it does not predetermine the specific research areas to be addressed.

Distinctive Funding Opportunities

The DOD BCRP research portfolio includes many different types of projects with the shared goal of making breakthroughs in understanding breast cancer. These award mechanisms span the scope of the research continuum from research in the earliest stages of idea development to those where near term clinical impact is expected. In addition, they recognize the individuals undertaking this research - from those at the starts of their careers to those already distinguished in their fields.

Breakthrough Award

The intent of the Breakthrough Award is to support promising research that has high potential to lead to or make breakthroughs in breast cancer. The impact may be near-term or long-term, but must be significant and move beyond an incremental advancement. Applications must articulate the pathway to making a clinical impact for individuals with, or at risk for, breast cancer, even if the clinical impact is not an immediate outcome.

Breakthrough Award Levels 1 and 2 focus on the preliminary stages of the research process. Level 1 Awards are characterized as innovative, high-risk/high-reward research that is in the earliest stages of idea development and which has the potential to yield new avenues of investigation. Siyuan Zhang of the University of Notre Dame received a FY2014 Breakthrough

Award Level 1 to explore the repurposing of clinically available neurological drugs as a novel therapy of treating breast cancer brain metastasis.

Level 2 Awards require research that is already supported by preliminary data and has potential to make significant advances towards clinical translation. A FY2013 Breakthrough Award Level 2 awarded to Ramesh C. Gupta of the University of Louisville hypothesizes that a mixture of blueberry anthocyanidins – the colored pigments in the berries – will inhibit the growth of human breast cancer cells, thus resulting in more effective inhibition of breast cancer, and enhance therapeutic response of standard chemotherapeutic drugs.

Breakthrough Award Levels 3 and 4 focus on the more advanced end of the research continuum. Level 3 Awards support advanced translational studies that have the potential for near-term clinical investigation, including small-scale clinical trials. Elizabeth A. Mittendorf of the University of Texas, MD Anderson Cancer Center received a FY2013 Breakthrough Award Level 3 (Clinical Trial) to continue her work on a combination immunotherapy for the treatment of high-risk HER2 positive breast cancer following encouraging preliminary data.

Level 4 Awards are large-scale projects that will transform and revolutionize the clinical management and/or prevention of breast cancer with near-term clinical impact expected. A FY2013 Level 4 Award was granted to Stephen A. Johnston of Arizona State University, Tempe for studies on a system for early detection of breast cancer which could detect cancer before it was diagnosed and distinguish aggressive from indolent cancers. Both Award Levels 3 and 4 require consumer advocate involvement.

The Breakthrough Award is uniquely designed to dramatically, not incrementally, advance our knowledge in areas that offer the greatest impact to those living with, or at risk for, breast cancer. Such grants are precisely the types that rarely receive funding through more traditional programs such as the National Institutes of Health and private research programs. They therefore complement, and do not duplicate, other federal funding programs.

Visionary Individuals

As the Breakthrough Award recognizes research which will have the potential for a major impact and accelerate progress toward ending breast cancer, the following awards invest in individuals - whether at the beginning of their careers or those who have already shown the ability to be innovative leaders in their fields.

Era of Hope Scholar Awards support the next generation of leaders in breast cancer research, by identifying the best and brightest scientists early in their careers and giving them the necessary resources to pursue a highly innovative vision of ending breast cancer. Dr. Mikala Egeblad of the Cold Spring Harbor Laboratory received a FY2013 Era of Hope Scholar Award to determine if the inflammatory microenvironment can eliminate therapy resistance in breast cancer. This project seeks to establish strategies to better treat several groups of breast cancer patients: those with advanced metastatic breast cancer (cancer that has spread to other organs), those whose disease is dormant but are at risk of relapse, and those recommended for adjuvant treatment after surgery (patients at risk of early disseminated disease).

Innovator Awards provide funding and freedom to world renowned, outstanding individuals to pursue highly creative, potentially groundbreaking research that could ultimately accelerate the eradication of breast cancer. Dr. Bert O'Malley of the Baylor College of Medicine was granted an Innovator Award in FY2012 to develop therapies that can prevent and overcome the development of hormone-resistant metastases of primary breast cancer by targeting a specific family of steroid receptor coactivators (SRCs). These therapies would be able to restore the benefits of endocrine therapies such as tamoxifen and the aromatase inhibitors to resistant breast cancers.

Like the Innovator Awards, the Distinguished Investigator Award supports established visionary leaders from any field to pursue innovative ideas that could accelerate progress toward ending breast cancer. However, to be considered for this award, research must be proposed that is a fundamental shift from his/her track records of research.

It is vital that these grants continue to support breast cancer research. To sustain the Program's momentum, \$150 million for peer reviewed research is needed in FY16.

Outcomes and Reviews of the DOD BCRP

The outcomes of the BCRP-funded research can be gauged, in part, by the number of publications, abstracts/presentations, and patents/licensures reported by awardees. To date, there have been more than 17,048 publications in scientific journals, more than 22,175 abstracts and more than 1,022 patents/licensure applications. Over 226 clinical trials have been supported. The American public can truly be proud of its investment in the DOD BCRP. Scientific achievements that are the direct result of the DOD BCRP grants are moving us closer to eradicating breast cancer.

The success of the DOD peer reviewed Breast Cancer Research Program has been illustrated by several unique assessments of the Program. The Institute of Medicine (IOM), which originally recommended the structure for the Program, independently re-examined the Program in a report published in 1997. They published another report on the Program in 2004. Their findings overwhelmingly encouraged the continuation of the Program and offered guidance for program implementation improvements.

The 1997 IOM review of the DOD peer reviewed Breast Cancer Research Program commended the Program, stating, "the Program fills a unique niche among public and private funding sources for cancer research. It is not duplicative of other programs and is a promising vehicle for forging new ideas and scientific breakthroughs in the nation's fight against breast cancer." The 2004 report spoke to the importance of the program and the need for its continuation.

The DOD peer reviewed Breast Cancer Research Program not only provides a funding mechanism for high-risk, high-return research, but has also reported the results of this research to the American people at a public meeting called the Era of Hope. The 1997 meeting was the first time a federally-funded program reported back to the public in detail not only on the funds used, but also on the research undertaken, the knowledge gained from that research and future directions to be pursued.

Sixteen hundred consumers and researchers met for the sixth Era of Hope meeting in August, 2011. As MSNBC.com's Bob Bazell wrote, this meeting "brings together many of the most

committed breast cancer activists with some of the nation's top cancer scientists. The conference's directive is to push researchers to think 'out of the box' for potential treatments, methods of detection and prevention...." He went on to say "the program...has racked up some impressive accomplishments in high-risk research projects...."

The DOD peer reviewed Breast Cancer Research Program has attracted scientists across a broad spectrum of disciplines, launched new mechanisms for research and facilitated new thinking in breast cancer research and research in general. A report on all research that has been funded through the DOD BCRP is available to the public. Individuals can go to the Department of Defense website and look at the abstracts for each proposal at <http://cdmnp.army.mil/bcrp/>.

Commitment of the National Breast Cancer Coalition

The National Breast Cancer Coalition is strongly committed to the DOD BCRP in every aspect, as we truly believe it is one of our best chances for reaching **Breast Cancer Deadline 2020®**'s goal of knowing how to end the disease by the end of the decade. The Coalition and its members are dedicated to working with you to ensure the continuation of funding for this Program at a level that allows this research to forge ahead. From 1992, with the launch of our "300 Million More Campaign" that formed the basis of this Program, until now, NBCC advocates have appreciated your support.

Over the years, our members have shown their continuing support for this Program through petition campaigns, collecting more than 2.6 million signatures, and through their advocacy on an almost daily basis around the country asking for support of the DOD BCRP.

Consumer advocates have worked hard over the years to keep this program free of political influence. Often, specific institutions or disgruntled scientists try to change the program through legislation, pushing for funding for their specific research or institution, or try to change the program in other ways, because they did not receive funding through the process, one that is fair, transparent and successful. The DOD BCRP has been successful for so many years because of the experience and expertise of consumer involvement, and because of the unique peer review and programmatic structure of the program. We urge this Committee to protect the integrity of the important model this program has become.

There are over three million women living with breast cancer in this country today. This year, more than 40,000 will die of the disease and more than 231,000 will be diagnosed. We still do not know how to prevent breast cancer, how to diagnose it in a way to make a real difference or how to end it. It is an incredibly complex disease. We simply cannot afford to walk away from this program.

Since the very beginning of this Program in 1992, Congress has stood with us in support of this important approach in the fight against breast cancer. In the years since, Chairman Frelinghuysen and Ranking Member Visclosky, you, your predecessors, and this entire Committee have been leaders in the effort to continue this innovative investment in breast cancer research.

NBCC asks you, the Defense Appropriations Subcommittee, to recognize the importance of what has been initiated by the Appropriations Committee. You have set in motion an innovative and highly efficient approach to fighting the breast cancer epidemic. We ask you now to continue

your leadership and fund the Program at \$150 million and maintain its integrity. This is research that will help us win this very real and devastating war against a cruel enemy.

Thank you again for the opportunity to submit testimony and for giving hope to all women and their families, especially to the over 3 million women in the United States living with breast cancer and all those who share in the mission to end breast cancer.

House Appropriations Subcommittee on Defense Witness Disclosure Form

Clause 2(g) of rule XI of the Rules of the House of Representatives requires non-governmental witnesses to disclose to the Committee the following information. A non-governmental witness is any witness appearing on behalf of himself/herself or on behalf of an organization other than a federal agency, or a state, local or tribal government.

Your Name, Business Address, and Telephone Number:

Frances M. Visco
President, National Breast Cancer Coalition (NBCC)
1010 Vermont Ave. NW, Suite 900
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(202) 973-0582

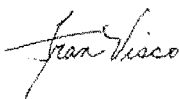
1. Are you appearing on behalf of yourself or a non-governmental organization? Please list organization(s) you are representing.

On behalf of the National Breast Cancer Coalition (NBCC)

2. Have you or any organization you are representing received any Federal grants or contracts (including any subgrants or subcontracts) since October 1, 2012 related to the agencies or programs funded by the Subcommittee?

No

3. If your response to question #2 is "Yes", please list the amount and source (by agency and program) of each grant or contract, and indicate whether the recipient of such grant or contract was you or the organization(s) you are representing.



Signature:

Date: April 14, 2015



U.S. HOUSE OF REPRESENTATIVES
SUBCOMMITTEE ON DEFENSE
COMMITTEE ON APPROPRIATIONS

WRITTEN TESTIMONY
SUBMITTED BY
THURGOOD MARSHALL COLLEGE FUND
APRIL 15, 2015

INTRODUCTION

Thank you Chairman Frelinghuysen and Ranking Member Visclosky and the entire Committee for the opportunity to submit testimony in support of FY 2016 funding for the Department of Defense Historically Black Colleges and Universities/Minority Servings Institutions program (DoD HBCU/MI). My name is Johnny C. Taylor, Jr., President and CEO of the Thurgood Marshall College Fund (TMCf). The Thurgood Marshall College Fund supports and represents more than 300,000 students attending the country's 47 *publically-supported* Historically Black Colleges and Universities (HBCUs), medical schools and law schools. More than eighty percent of all HBCU students attend a TMCf member school. TMCf was established in 1987 under the leadership of Dr. N. Joyce Payne.

As you deliberate the FY 2016 Department of Defense budget, TMCf requests that at a minimum you maintain the current \$34.4 million for the DoD HBCU/MI program and also consider increasing funding to \$40 million. This program is funded under the Defense-wide Research, Development, Test and Evaluation account. Your support and engagement around this program is critical to ensure that our nation is building a pipeline of diverse talent to fill STEM jobs at DoD and with the broader STEM sector. The opportunities and experiences that minority students gain from exposure to DoD research labs are invaluable. This account provides STEM research opportunities not just for HBCUs but for Minority-Serving Institutions (MSIs), including Hispanic Serving Institutions and others. This is a national security issue and one that should not be overlooked. Program funds actually enhance research capabilities on campuses and ensure that future minority engineers and scientists are trained in areas that are important to national defense.

Last year, the Administration unsuccessfully proposed cuts to this program and submitted a \$5 million reprogramming request for funds appropriated under FY 2014. TMCf applauds the Committee for rejecting both of these proposals. Our government affairs team met with Members in both chambers to oppose cuts. We worked with authorizers and appropriators in the House and Senate to protect funding and explain the valuable return on the investment. While we understand that cuts need to be made across the government, we

ask Members to be thoughtful about those funding decisions and shield resources that grow our education STEM investment and talent pool for DoD.

Minority students across the country continue to gain exposure to DoD research labs and high level STEM training because of this investment. This program needs to continue and even grow. HBCUs and TCMF are helping build the minority STEM pipeline.

As demographics of our nation change, HBCUs provide access and opportunities to an increasingly diverse population and at an affordable cost. Many students attending TCMF schools are Pell eligible and first generation college students. The average in-state tuition at a TCMF school is \$7,105 compared to a private institution where tuition is \$14,891. While resources from key education programs across the federal government continue to dwindle, HBCUs remain committed to providing rigorous academic programs and producing the next generation of leaders in science and technology, public service and other sectors. To date, TCMF has provided more than \$200 million in scholarships, programmatic support and capacity building support to students and member schools. As a leader in the higher education space, TCMF is taking the lead in preparing students who attend HBCUs to compete in a global workforce by linking them with quality summer job experiences.

One of our primary areas of focus is talent acquisition for the private sector and the federal government. We place a priority on identifying top STEM students for rewarding summer experiences and to fill competitive jobs in the STEM sector and beyond. We currently do this work for USDA, DoD, and private corporations. We recently entered into a partnership with Apple, our newest and largest investor. The DoD HBCU/MI program makes it possible for TCMF member schools to graduate highly competitive STEM students who have a greater appreciation for how their careers may be used to support national defense priorities at DoD.

Specifically, the Department of Defense HBCU/MI program funding has provided scholarships and internships for students; and training for faculty at top research labs across the country. Additionally, funding has provided universities with the resources to improve faculty development and expand instructional approaches in teaching STEM curriculums, programs and activities.

Decreasing funding for this program will jeopardize minority student access to innovative STEM education, and research experiences nationwide. This program has made it possible for minorities to gain invaluable experience and exposure to DOD research labs. HBCUs are an important producer of future black science and engineering doctorate recipients, especially outside the social sciences. According to a 2015 National Science Foundation (NSF) report on Women Minorities and Persons with Disabilities in Science & Engineering, between 2008 and 2012 about 30 percent of black students who received a doctoral degree in science and engineering (S&E) received a bachelor's degree from an HBCU. Also, well worth noting is NSI's 2014 Info Brief on FY 2012 Science & Engineering Obligations to Academic and Non-Profit Institutions that highlights the fact that S&E funding decreased in FY 2012 and HBCUs saw the largest decrease of 10 percent.

Although HBCUs have less funding and resources than most majority institutions, many Pell eligible, first generation college students pursuing STEM majors choose HBCUs because of

their nationally recognized engineering programs and to experience a nurturing learning environment often associated with these campuses. For example, Tuskegee University, a TMCF member school and 1890 Land Grant Institution currently has roughly 3100 students and 2100 of the students are STEM majors. The DoD HBCU/MI program helps level the playing field.

The DOD HBCU/MI program has a profound impact on STEM students who attend HBCUs and MSIs. TMCF is ready to work with the Committee to ensure this program continues to grow and yields a great return on the federal investment. Our goal is to help the nation remain secure and to ensure DoD has the diverse and necessary talent to fill important jobs and to compete globally.

Thank you.

House Appropriations Subcommittee on Defense

[Insert Subcommittee Name Here]

Witness Disclosure Form

Clause 2(g) of rule XI of the Rules of the House of Representatives requires non-governmental witnesses to disclose to the Committee the following information. A non-governmental witness is any witness appearing on behalf of himself/herself or on behalf of an organization other than a federal agency, or a state, local or tribal government.

<p>Your Name, Business Address, and Telephone Number:</p> <p>Johnny C. Taylor, Jr., President & CEO Thurgood Marshall College Fund 901 F. Street NW, Suite 300 Washington, DC 20004 202-507-4854</p>
<p>1. Are you appearing on behalf of yourself or a non-governmental organization? Please list organization(s) you are representing.</p> <p>Thurgood Marshall College Fund</p>
<p>2. Have you or any organization you are representing received any Federal grants or contracts (including any subgrants or subcontracts) since October 1, 2012 related to the agencies or programs funded by the Subcommittee?</p> <p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>
<p>3. Have you or any organization you are representing received any contracts or payments originating with a foreign government since October 1, 2012 related to the agencies or programs funded by the Subcommittee?</p> <p>Yes <input checked="" type="radio"/> No</p>
<p>4. If your response to question #2 and/or #3 is "Yes", please list the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof), and/or the amount and country of origin of any payment or contract originating with a foreign government. Please also indicate whether the recipient was you or the organization(s) you are representing.</p> <p>Please see attachments.</p>

Signature:

Date:

THURGOOD MARSHALL COLLEGE FUND, INC.

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
For the Year Ended December 31, 2012

<u>Agency or Federal Grantor/Pass-through Grantor Program Title</u>	<u>CFDA Number</u>	<u>Federal Pass-through Grant Number</u>	<u>Federal Expenditures</u>
U.S. DEPARTMENT OF ENERGY			
Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis/Assistance	81.117	DE-EE0003101	\$ 765,803
The Minority Education Institution Student Partners Program	81.102	DE-ED0000191	<u>52,200</u>
Total U.S. Department of Energy			<u>818,003</u>
U.S. DEPARTMENT OF DEFENSE			
Air Force Defense Research Sciences Program	12.800	FA9550-13-1-0026	<u>598,008</u>
Total U.S. Department of Defense			<u>598,008</u>
U.S. DEPARTMENT OF AGRICULTURE			
Animal and Plant Health Inspection Service Summer Intern Program	10.025	12-1001-0834-CA	<u>398,526</u>
Total U.S. Department of Agriculture			<u>398,526</u>
TOTAL EXPENDITURES OF FEDERAL AWARDS			<u>\$ 1,814,537</u>

See accompanying notes to this schedule.

THURGOOD MARSHALL COLLEGE FUND, INC.

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
For the Year Ended December 31, 2013

<u>Agency or Federal Grantor/Pass-through Grantor Program Title</u>	<u>Federal CFDA Number</u>	<u>Agency or I Pass-through Grant Number</u>	<u>Federal Expenditures</u>
U.S. DEPARTMENT OF DEFENSE			
Air Force Defense Research Sciences Program	12.800	FA9550-13-1-0026	\$ 2,401,992
Air Force Defense Research Sciences Program	12.800	FA9550-14-1-0046	<u>671,173</u>
Total U.S. Department of Defense			<u>3,073,165</u>
U.S. DEPARTMENT OF AGRICULTURE			
Animal and Plant Health Inspection Service Summer Intern Program	10.025	13-1001-0834-CA	<u>417,007</u>
Total U.S. Department of Agriculture			<u>417,007</u>
U.S. DEPARTMENT OF ENERGY			
The Minority Education Institution Student Partners Program	81.102	DE-ED0000191	<u>50,000</u>
Total U.S. Department of Energy			<u>50,000</u>
TOTAL EXPENDITURES OF FEDERAL AWARDS			<u>\$ 3,540,172</u>

See accompanying notes to this schedule.

Thurgood Marshall College Fund and AffiliateSchedule of Expenditures of Federal Awards
For the Year Ended December 31, 2014

Agency or Federal Grantor/Pass-through Grantor Program Title	Federal CFDA Number	Agency or Pass-through Grant Number	Federal Expenditures
U.S. Department of Defense			
Air Force Defense Research Sciences Program	12.800	FA9550-14-1-0046	\$ 2,824,772
Total U.S. Department of Defense			<u>2,824,772</u>
U.S. Department of Agriculture			
Animal and Plant Health Inspection Service Summer Intern Program	10.025	13-1001-0834-CA	<u>420,672</u>
Total U.S. Department of Agriculture			<u>420,672</u>
U.S. Department of Energy			
The Minority Education Institution Student Partners Program	81.102	DE-ED0000191	<u>28,000</u>
Total U.S. Department of Energy			<u>28,000</u>
Total Expenditures of Federal Awards			<u><u>\$ 3,273,444</u></u>

See accompanying notes to this schedule.



Written Testimony of
Heather O'Beirne Kelly, PhD
Lead Psychologist, Military & Veterans Policy
American Psychological Association

Submitted to the
United States House of Representatives
Committee on Appropriations
Subcommittee on Defense
The Honorable Rodney Frelinghuysen, Chairman

**Fiscal Year 2016 Appropriations for the
Department of Defense**
April 13, 2015

The American Psychological Association (APA) is a scientific and professional organization of more than 130,000 psychologists and affiliates.

For decades, psychologists have played vital roles within the Department of Defense (DoD), as providers of clinical services to military personnel and their families, and as scientific researchers investigating mission-targeted issues ranging from airplane cockpit design to counter-terrorism to Post-Traumatic Stress Disorder (PTSD) and Traumatic Brain Injury (TBI). More than ever before, psychologists today bring unique and critical expertise to meeting the needs of our military and its personnel. APA's testimony will focus on reversing Administration cuts to the overall DoD Science and Technology (S&T) budget and maintaining support for important behavioral sciences research within DoD.

FY16 DoD Appropriations Summary

Once again, the President's FY16 budget request fails to advance critical basic and applied research at DoD (Defense Science & Technology accounts or S&T). In line with recommendations from the Coalition for National Security Research (CNSR), APA urges the Subcommittee to fund overall Defense S&T at \$12.8 billion in FY16, including \$2.4 billion for the 6.1 basic research accounts.

APA also encourages the Subcommittee to strengthen funding for *psychological research* through the military research laboratories and Health Affairs. This human-centered research is vital to sustaining warfighter superiority.

DoD Research

“People are the heart of all military efforts. People operate the available weaponry and technology, and they constitute a complex military system composed of teams and groups at multiple levels. Scientific research on human behavior is crucial to the military because it provides knowledge about how people work together and use weapons and technology to extend and amplify their forces.”

Human Behavior in Military Contexts

Report of the National Research Council, 2008

Just as a large number of psychologists provide high-quality *clinical services* to our military service members stateside and abroad (and their families), psychological scientists within DoD conduct cutting-edge, *mission-specific research* critical to national defense.

Behavioral Research within the Military Service Labs and DoD

Within DoD, the majority of behavioral, cognitive and social science is funded through the Army Research Institute for the Behavioral and Social Sciences (ARI) and Army Research Laboratory (ARL); the Office of Naval Research (ONR); and the Air Force Research Laboratory (AFRL), with additional, smaller human systems research programs funded through the Office of the Secretary of Defense (OSD) and the Defense Advanced Research Projects Agency (DARPA).

The military service laboratories provide a stable, mission-oriented focus for science, conducting and sponsoring basic (6.1), applied/exploratory development (6.2) and advanced development (6.3) research. These three levels of research are roughly parallel to the military's need to win a current war (through products in advanced development, 6.3) while concurrently preparing for the next war (with technology “in the works,” 6.2) and the war after next (by taking advantage of ideas emerging from basic research, 6.1). All of the services fund human-related research in the broad categories of personnel, training and leader development; warfighter protection, sustainment and physical performance; and system interfaces and cognitive processing.

National Academies Report Calls for Doubling Behavioral Research

A recent National Academies report on *Human Behavior in Military Contexts* recommended doubling the current budgets for basic and applied behavioral and social science research “across the U.S. military research agencies.” It specifically called for enhanced research in six areas:

- intercultural competence;

- teams in complex environments;
- technology-based training;
- nonverbal behavior;
- emotion; and
- behavioral neurophysiology.

Behavioral and social science research programs eliminated from the mission labs due to cuts or flat funding are extremely unlikely to be picked up by industry, which focuses on short-term, profit-driven product development. Once the expertise is gone, there is absolutely no way to “catch up” when defense mission needs for critical human-oriented research develop. As DoD noted in its own Report to the Senate Appropriations Committee:

“Military knowledge needs are not sufficiently like the needs of the private sector that retooling behavioral, cognitive and social science research carried out for other purposes can be expected to substitute for service-supported research, development, testing, and evaluation...our choice, therefore, is between paying for it ourselves and not having it.”

Defense Science Board Calls for Priority Research in Social and Behavioral Sciences

This emphasis on the importance of social and behavioral research within DoD is echoed by the Defense Science Board (DSB), an independent group of scientists and defense industry leaders whose charge is to advise the Secretary of Defense and the Chairman of the Joint Chiefs of Staff on “scientific, technical, manufacturing, acquisition process, and other matters of special interest to the Department of Defense.”

In its report on *21st Century Strategic Technology Vectors*, the DSB identified a set of four operational capabilities and the “enabling technologies” needed to accomplish major future military missions (analogous to winning the Cold War in previous decades). In identifying these capabilities, DSB specifically noted that “the report defined technology broadly, to include tools enabled by the social sciences as well as the physical and life sciences.” Of the four priority capabilities and corresponding areas of research identified by the DSB for priority funding from DoD, the first was defined as “mapping the human terrain” – understanding the human side of warfare and national security.

FY16 DoD Budget for Science and Technology

In terms of the overall DoD S&T budget, the President’s request for FY16 again represents a step backward for defense research, and for basic research in particular.

Within the S&T program, APA encourages the Subcommittee to follow recommendations from the National Academies and the Defense Science Board to fund priority research in the behavioral sciences in support of national security. Clearly, psychological scientists address a broad range of important issues and problems vital to our national defense, with expertise in modeling behavior of individuals and groups, understanding and optimizing cognitive functioning, perceptual awareness, complex decision-making, stress resilience, recruitment and retention, and human-systems interactions. We urge you to support the men and women on the front lines by reversing another round of cuts to the overall defense S&T account and the human-oriented research projects within the military laboratories.

As our nation continues to meet the challenges of current engagements, asymmetric threats and increased demand for homeland defense and infrastructure protection, enhanced battlespace awareness and warfighter protection are absolutely critical. Our ability to both foresee and immediately adapt to changing security environments will only become more vital over the next several decades. Accordingly, DoD must support basic Science and Technology (S&T) research on both the near-term readiness and modernization needs of the department and on the long-term future needs of the warfighter.

Fund DoD Research and Programs Supporting Servicemember Mental Health and Well-being

DoD also supports psychological research and programming beyond its service laboratories. APA urges the Subcommittee to fully fund Health Affairs and other offices addressing research and programming in the crucial areas of Servicemember mental health and well-being -- particularly efforts addressing suicide prevention.

Below is suggested appropriations report language for FY16 which encourages the Department of Defense to fully fund its behavioral research programs within the military laboratories and the Minerva initiative:

Department of Defense

Research, Development, Test, and Evaluation:

Warfighter Research: The Committee notes the increased demands on our military personnel, including high operational tempo, leadership and training challenges, new and ever-changing stresses on decision-making and cognitive readiness, and complex human-technology interactions. To help address these issues vital to our national security, the Committee urges strengthened funding for psychological research through the military research laboratories: the Air Force Office of Scientific Research and Air Force Research Laboratory; the Army

Research Institute for the Behavioral and Social Sciences and Army Research Laboratory; and the Office of Naval Research. The Committee also notes the critical contributions of behavioral science to combating counter-insurgencies and understanding extremist ideologies, and renews its strong support for the DoD Minerva initiative.

For more information please contact:

Heather O'Beirne Kelly, PhD

Lead Psychologist, Military & Veterans Policy
American Psychological Association
750 First Street, NE
Washington, DC 20002
202.336.5932 or hkelly@apa.org

[Insert Subcommittee Name Here]

Witness Disclosure Form

Clause 2(g) of rule XI of the Rules of the House of Representatives requires non-governmental witnesses to disclose to the Committee the following information. A non-governmental witness is any witness appearing on behalf of himself/herself or on behalf of an organization other than a federal agency, or a state, local or tribal government.

Your Name, Business Address, and Telephone Number: <i>Heather O'Beirne Kelly, PhD (202.336.5932)</i> <i>APA Science, 5th Floor</i> <i>750 First St, NE</i> <i>Washington, DC 20002</i>	
1. Are you appearing on behalf of yourself or a non-governmental organization? Please list organization(s) you are representing.	<i>American Psychological Association (APA)</i>
2. Have you or any organization you are representing received any Federal grants or contracts (including any subgrants or subcontracts) since October 1, 2012 related to the agencies or programs funded by the Subcommittee? Yes <input checked="" type="radio"/> No	
3. Have you or any organization you are representing received any contracts or payments originating with a foreign government since October 1, 2012 related to the agencies or programs funded by the Subcommittee? Yes <input checked="" type="radio"/> No	
4. If your response to question #2 and/or #3 is "Yes", please list the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof), and/or the amount and country of origin of any payment or contract originating with a foreign government. Please also indicate whether the recipient was you or the organization(s) you are representing.	

Signature:

Heather O'Beirne Kelly

Date:

4/13/15

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