

DEPARTMENT OF DEFENSE APPROPRIATIONS
FOR 2017

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

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PART 2

	Page
United States European Command	1
Testimony of Members of Congress	29
United States Central Command	163
Defense Health Programs	215
United States Pacific Command and United States Forces Korea	367
Public Witness Statements	407

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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR 2017

WEDNESDAY, FEBRUARY 24, 2016.

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. The meeting will come to order. Good morning everybody. The hearing 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.

We are moving so quickly, we are working on the script here.

Mr. VISCLOSKY. Mr. Chair, I move that this portion of the hearing today which involves sensitive material be held in executive session because of the sensitivity of the materials we discussed.

Mr. FRELINGHUYSEN. So ordered. I just remind people, the materials that have been distributed may be distributed close hold. No discussion outside of the room this morning.

Our sole witness this morning, is General Philip Breedlove of the United States Air Force, who, I think as you know, wears many hats, including the commander of the United States European Command, and NATO, Supreme Allied Commander Europe. General Breedlove assumed his current duties in the spring of 2013.

General Breedlove, welcome back to the committee, and I know this is your last appearance, but we want to thank you for 39 years of service, you and your better half, to our remarkable Nation. And we wish you Godspeed in the future.

Of course, when you assumed command 3 years ago, EUCOM was relatively quiet. After decades of keeping the peace, EUCOM NATO and our allies and partners now face threats on many fronts, primarily from Russian aggression and ISIL, or ISIL-wannabes. Terrorist acts from ISIL and sympathizers in Europe, most recently attacks in Paris and Ankara, have killed hundreds, including dozens in recent weeks.

Even more alarming and destabilizing, a major refugee crisis is threatening to unravel the European Union's border-free zones, even as it creates a monumental humanitarian catastrophe. At the same time, ISIS is using the refugee crisis to smuggle its own operatives into Europe. Finally, your responsibilities are not lim-

ited to the critical role you play in helping to stabilize Europe. EUCOM plays a key role in assisting CENTCOM and AFRICOM, with a variety of crises that they face, and conflicts that we continue to have in the Middle East and Africa.

Members of this committee have traveled to multiple countries in your area of operation in the past year, including countries in Eastern and Western Europe and Ukraine, so we speak with you today with the benefit of having seen firsthand just some of the challenges you face, and we have had the opportunity to have some face time with you as well, of which we are grateful.

General, we understand your job is a tough one. We are here to support you. And I know that you have a prepared statement which we will put into the record, and we appreciate your being with us. And I would like to yield some time to the ranking member, Mr. Visclosky.

Mr. VISCLOSKY. Chairman, thank you very much for holding the hearing, and General, I would simply echo the chairman's words and thank you very much for your life of dedicated service to our Nation and to the people of it, and certainly wish you well and look forward to your testimony today.

General BREEDLOVE. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. General Breedlove, the floor is yours. We work pretty quickly here, don't we?

[The written statement of General Breedlove follows:]

HOUSE COMMITTEE ON ARMED SERVICES

STATEMENT OF GENERAL PHILIP BREEDLOVE

COMMANDER

U.S. FORCES EUROPE

February 25, 2016

I. Introduction

As I arrive at the end of my assignment as both Commander of U.S. European Command (EUCOM) and Supreme Allied Commander for Europe (SACEUR), I have had no greater honor in my 39-year career than to lead the Soldiers, Sailors, Airmen, Marines, Coast Guardsmen and civilians of EUCOM. These remarkable men and women continue to serve not only in the EUCOM theater, but put themselves in harm's way across the globe and I thank this Committee for its continued support to them and all our nation's armed forces.

I cannot overemphasize how important European nations, in particular our NATO Allies and non-NATO partners, are to ensuring America's security and safety. Many of our most capable and willing Allies and partners are in Europe, playing an essential role in promoting our vital interests and executing a full range of military missions. In this time of increasing military and strategic risk, we will continue to seize this opportunity to further strengthen the Transatlantic Alliance as EUCOM continues to experience unprecedented instability in an area of the world we once viewed as whole, free, prosperous, and at peace.

Europe is not the same continent it was when I took command, as new threats and challenges continue to emerge. EUCOM's steady state operations, activities, and actions, alongside our European Allies and partners, are targeted at meeting these challenges to ensure our national security interests, including defending our nation forward from conventional, asymmetric, and even existential threats emanating from our Area of Responsibility (AOR).

EUCOM continues to play a vital deterrence role, against state and non-state actors alike, in support of the U.S. military's larger global strategy. The forces forward deployed in this theater operate across Europe, the Middle East, and Africa. Likewise, the forward operating bases in Europe provide the U.S. Joint Force with essential access in the Mediterranean and the Levant, as well as North Africa and the Arctic.

Our theater priorities and supporting activities in Europe fully support both the National Security and the National Military Strategies. First and foremost they support our national direction to counter malign Russian influence and aggression, as well as meet our enduring interests – the security of the United States; a strong U.S. economy; respect for universal values at home and abroad; and a rules-based international order.

However, it is not enough to simply have a strategy that supports our national security objectives; we also require resources in the theater necessary to accomplish these objectives.

Since the release of the 2012 Defense Strategic Guidance and our national decision to rebalance to the Asia/Pacific region, EUCOM has paid a steadily increasing price in resources and assigned forces to help achieve rebalance. During the height of the Cold War, there were over half a million U.S. personnel assigned in the European theater. Today that number is around 62,000 permanent military personnel, of which 52,500 are in direct support of EUCOM missions. The remaining personnel support the missions of other organizations, such as U.S. Africa Command (AFRICOM), U.S. Transportation Command (TRANSCOM), and NATO. EUCOM-assigned forces are now tasked with not only the same missions we have performed for the past several decades but with a substantial increase in our deterrence and reassurance operations in response to Russian occupation of Crimea and its aggression in eastern Ukraine, as well as requirements in the U.S. Central Command (CENTCOM) and AFRICOM AORs. EUCOM conducted Operation ATLANTIC RESOLVE (OAR), trained Ukrainian National Guardsmen and defense forces, provided resources in support of AFRICOM's counter-Ebola mission and continued to provide critical support of CENTCOM's counter-ISIL mission. It is important to understand the critical roles these permanently stationed forces and bases play in this theater.

In response to the new European security environment, I have strongly advocated for, and our Defense Department, Administration, and Congress have supported, not only suspending further drawdown of this theater, but now the need to look at tailored, supportable increases in capabilities as we requested in the FY 2017 budget.

II. Theater Assessment

The U.S. and NATO face two primary threats to our security interests: Russian aggression and growing instability on our southern flank. Russia continues to foment security concerns in multiple locations around the EUCOM AOR. Concurrently, we deal with a variety of transnational threats that largely emanate from instability in Iraq, Syria, North Africa, and the rise of the Islamic State of Iraq and the Levant (ISIL). The U.S. and NATO must take a 360-degree approach to security – addressing the full-spectrum of security challenges from any direction and ensure we are using all elements of our nation's power.

A. Russia

For more than two decades, the United States and Europe have attempted to engage with Russia as a partner by building military, economic, and cultural relationships. During the 1990s, Russia became a Partnership for Peace member with NATO, signed the 1994 Budapest

Memorandum, and endorsed the 1997 NATO-Russia Founding Act. The text and tone of these instruments presumed Russia was a partner who shared our commitment to security, prosperity, and inclusive peace in Europe. With these Russian commitments, the Department of Defense made security and force posture determinations significantly reducing European force structure based on the assumption that Russia was a sincere partner and in 2009, the United States sought to “reset” its relationship with Russia, which had been damaged by Russia’s 2008 invasion of the Republic of Georgia.

Despite these and many other U.S. and European overtures, it is now clear Russia does not share common security objectives with the West. Instead, it continues to view the United States and NATO as a threat to its own security. Since the beginning of 2014, President Putin has sought to undermine the rules-based system of European security and attempted to maximize his power on the world stage.

Russia continues its long-term military modernization efforts, and its recent actions in Ukraine and Syria demonstrate an alarming increase in expeditionary force projection and combat capability and logistical sustainment capacity. Russia has spent the past 20 years analyzing U.S. military operations and has established a doctrine and force to effectively counter perceived U.S. and NATO strengths. In examining the threats Russia poses to NATO and the U.S., we should consider Russian actions comprehensively, taking into account their capabilities, capacities, and intentions.

To the north: Arctic region. Increased human activity is changing the way the United States, one of the eight Arctic nations, views the Arctic. EUCOM, along with our Allies and partners, is working to contribute to a peaceful opening of the Arctic. We strive to prevent and deter conflict, but we must be prepared to respond to a wide range of challenges and contingencies. We work with our Allies and partners to ensure the Arctic is a stable, secure region where U.S. national interests are safeguarded and the homeland is protected.

Decreasing sea ice is increasing commercial and recreational activity in the high north. In the EUCOM AOR, shipping activity along the Northern Sea Route (NSR) is providing shorter alternatives for cargo. The unpredictability of weather and ice between seasons makes the Arctic a harsh environment for commercial shipping; however, the trend is clearly toward less Arctic ice and longer shipping windows.

The eight Arctic states have a solid history of cooperation in the region. This includes the 2011 Arctic Search and Rescue Agreement, signifying an important step in Arctic cooperation. However, we cannot ignore Russia's increase in military activity which concerns all nations—not just those in the Arctic. 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 – all to counter an imagined threat to their internationally undisputed territories – stands in stark contrast to the conduct of the seven other Arctic nations.

Russia's improvements to Arctic settlements are ostensibly to support increased shipping traffic through the NSR. However, many of these activities are purely military in nature and follow a recent pattern of increasingly aggressive global posturing. We continue to encourage all of our Arctic partners to respect the broad and historical agreements against militarization of the high north and remain dedicated toward maintaining a peaceful opening of the Arctic.

Under the United Nations Convention on the Law of Sea (UNCLOS), several Arctic states are submitting extended continental shelf claims. Joining the Convention would allow the United States to submit our own claims, promote U.S. interests in the environmental health of the oceans, and give the United States a seat at the table when rights vital to our national interests are decided. Cooperation among the Arctic states and adherence to the UNCLOS legal framework will deter escalation in the Arctic.

To the east: Russia and periphery (Ukraine and Baltic States). The Kremlin views the current situation in Ukraine as unsettled and a critical point of long-term friction. Russia's coercive use of energy has grown with threats and outright use of force. Eastern and Central European states, to include the Baltics, are concerned about Russia's intentions in Europe and consider Russia's aggression in Ukraine validation of their concerns.

Russia's aggressive foreign policy toward Ukraine and the Baltic States amplifies a general sense of unease among NATO's eastern flank members, with tensions across the region, both inside and outside NATO, exacerbated by Moscow's illegal occupation of Crimea and direct support for combined Russian separatist forces in eastern Ukraine. Kremlin efforts to establish levers of influence in the Baltics across the diplomatic, economic, information, and security spectrum are meant to develop an environment favorable to Moscow and present an ongoing challenge to Western efforts aimed at assuring these NATO Allies.

Russian use of Unresolved 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 often manufactured by Russia to provide pretext for military intervention and ensures the Kremlin maintains levels of influence in the sovereign matters of other states.

- Georgia: A clear purpose motivating Russia’s invasion of Georgia in August 2008 was to prevent Tbilisi from pursuing its sovereign decision to become a full member of the European and transatlantic communities – a decision endorsed by NATO in the Bucharest Summit Declaration. In the aftermath of the 2008 war, Russia recognized Abkhazia and South Ossetia’s independence, and Russia’s military still occupies the regions. In an attempt to create additional obstacles to Georgia’s Euro-Atlantic integration, Russia also signed so-called “treaties” of alliance with Abkhazia and South Ossetia to increase its military, political, and financial control over these regions. Moreover, Russia has continued its policy of “borderization” along the Administrative Boundary Lines separating the two territories from the rest of Georgia by building fences and other physical barriers. In coordination with the de facto authorities in Abkhazia and South Ossetia, Russian border guards prevent freedom of movement of Georgian citizens into the territories and obstruct unfettered access for international and humanitarian organizations.
- In Moldova, Russian forces have conducted “stability operations” since 1992 to contain what is described as a separatist conflict in Transnistria. Moldova remains disappointed with Russia’s continued political, economic, and informational support to the separatist regime. Most upsetting to Moldova is Russia’s military presence (1,500 troops) on Moldovan territory, which is aimed at maintaining the status quo in the region. Moldova has two battalions (150 personnel each) and one company (120 personnel) permanently deployed on the peacekeeping mission in the security zone of the Transnistrian Region.
- Regarding Armenia and Azerbaijan, Russia is part of the Minsk Group process, aimed at resolving the Nagorno-Karabakh (NK) conflict. Despite this, Moscow has actually increased instability in the region by selling arms to Azerbaijan while maintaining a troop presence in Armenia. In fact, violence along the Line of Contact and the Armenia-Azerbaijan border has escalated significantly in the last two years, with 2015 being the deadliest year in the conflict since the ceasefire was signed in 1994. The complicated NK conflict is arguably the greatest impediment to the spread of peace and security through Europe to the Caucasus.

Russia modulates these conflicts by manipulating its support to the participants, while engaging in diplomatic efforts in order to preserve its influence the affected regions. Just as the Soviet Union dominated the nations of the Warsaw Pact, Russia coerces, manipulates, and aggresses against its immediate neighbors in a manner that violates the sovereignty of individual nations, previous agreements of the Russian government, and international norms.

Other unresolved conflicts in Europe require persistent attention to keep them from escalating. In the Balkans, Serbia's continued reluctance to recognize Kosovo's independence detracts from regional stability and security. Kosovo also struggles with interethnic tensions between Kosovo Serbs and Kosovo Albanians, while fledgling government institutions, unlawful parallel government structures, and a weak rule of law contribute to high levels of corruption, illicit trafficking, and weak border security. NATO's Kosovo Force, supported by EUCOM, plays an essential role in ensuring a safe and secure environment and freedom of movement and is respected by both Kosovo and Serbia.

Russian Support to Syria. Russia's military intervention in Syria has bolstered the regime of Bashar al-Assad, targeted U.S.-supported opposition elements, and complicated U.S. and Coalition operations against ISIL. The Syrian crisis is destabilizing the entire region, and Russia's military intervention changed the dynamics of the conflict, which may lead to new or greater threats to the U.S. and its Allies for years to come. Moscow's ongoing operations in Syria underscore Russia's ability and willingness to conduct expeditionary operations and its modernized military capabilities which are emboldening the Kremlin to increase its access and influence in a key geopolitical region.

B. Threats to European Allies and Partners

ISIL and Other Threats Coming from the South. Numerous terrorist attacks have taken place in the EUCOM AOR over the past year, including the near simultaneous attacks in Paris that killed approximately 130 people this past November, with several additional disrupted plots targeting U.S. forces and interests. Over the past 12 months, ISIL has expanded its operations throughout the EUCOM AOR, formally declaring an expansion of its self-declared "caliphate" into the Caucasus while conducting multiple attacks across the region. ISIL uses social media and online propaganda to radicalize and encourage European extremists to travel to Syria/Iraq or conduct attacks in their home countries. We anticipate additional European terrorist attacks in the future. From Paris to Copenhagen, Belgium to Turkey and the Caucasus, ISIL and Al-Qaida

inspired terrorists have conducted attacks that tear apart the fabric of free and democratic societies. These terrorists are not geographically limited to Europe. ISIL elements have conducted multiple attacks against European individuals and interests in North Africa including the Sinai. While we expect ISIL terrorists in North Africa will remain focused on internal issues in Africa in the near term, they may pose a greater threat to Europe should they achieve a safe haven in Libya or another North African country.

Similar to ISIL, Al-Qaida and its affiliates in the Middle East, North Africa, and Asia, such as al-Qaida in the Arabian Peninsula and al-Nusrah Front, possess the ability to conduct mass casualty attacks against U.S. and Allied personnel and facilities in Europe. Complicating this picture are self-radicalized terrorists who, with little guidance from parent organizations, pose an unpredictable threat.

Left- and right-wing politically inspired violence. Internal dissent also threatens our partners in Europe. As an example, leftist groups such as the Kurdistan Workers Party (PKK) and the Revolutionary People's Liberation Party/Front (DHKP/C) in Turkey remain a persistent threat to both the Turkish government and U.S. interests. DHKP/C was responsible for the August 2015 small-arms attack outside the U.S. Consulate in Istanbul and the February 2013 suicide attack at the U.S. Embassy in Ankara.

Refugee crisis. Europe is facing a historic refugee crisis as displaced persons, primarily from Syria, Afghanistan, Iraq, and unstable parts of Africa flee conflicts and attempt to reach Western European countries such as Germany and Sweden. Over 1 million refugees or economic migrants arrived in Europe in 2015, entering primarily in Italy and Greece with 2.6 million refugees residing in Turkey. These figures have trended upward for the past two years and will likely continue to rise in 2016 as the conflict in Syria continues.

There is a concern that criminals, terrorists, foreign fighters and other extremist organizations will recruit from the primarily Muslim populations arriving in Europe, potentially increasing the threat of terrorist attacks. Also, local nationalists opposed to a large-scale influx of foreigners could become increasingly violent, building on the small number of attacks against migrant and refugee housing observed to date.

The refugee crisis is tragic, and the nations in the European Union are taking steps and adding resources to increasing humanitarian assistance to conflict affected countries while expanding domestic security measures and pursuing diplomatic solutions to the growing problem

and its root causes. EUCOM work with our interagency partners to monitor this humanitarian situation.

Foreign Terrorist Fighters (FTF). Foreign terrorist fighters remain a key concern for EUCOM and our foreign partners. Over 25,000 foreign fighters have traveled to Syria to enlist with Islamist terrorist groups, including at least 4,500 westerners. Terrorist groups such as ISIL and Syria's al-Nusra Front (ANF) remain committed to recruiting foreigners, especially Westerners, to participate in the ongoing Syrian conflict. The ability of many of these Europe-originated foreign fighters to return to Europe or the U.S. makes them ideal candidates to conduct or inspire future terrorist attacks.

European Economic Challenges. The growing instability in Europe fueled by a revanchist Russia is occurring while most of the continent remains stagnated in a persistent financial crisis, anemic economic growth, and continued energy dependence. The Greek economic crisis that nearly led that country to leave the 'euro zone' in the summer of 2015, is unfortunately indicative of the wide European debt crisis that at one time threatened the health of the European economy, which is unambiguously linked to the U.S. economy. Continued weak economic growth not only keeps unemployment rates high, specifically among young migrants susceptible to radicalization, it also hinders European countries' ability to increase defense spending, resulting in most NATO countries remaining below the two percent NATO benchmark. European continued dependence on Russian energy, specifically former-Soviet and eastern-bloc states, only serves to bolster Russia's ability to coerce those nations to achieve political gains.

Challenges for NATO. As NATO undergoes a profound historical change, it is both performing its core tasks of cooperative security, crisis management and collective defense and is recommitting to the basics, emphasizing Articles 3, 4, and 5 of the Washington Treaty.

Article 3 commits Allies, through "self-help" and "mutual aid," to develop "their individual and collective capacity to resist armed attack." It reminds us that defense begins at home, that all members must contribute to collective defense, and that each nation has a responsibility to maintain their capability for their own defense. Poland is a good example of an Ally who has reformed its military structure and is modernizing its military to meet the security needs of both itself and NATO.

Article 4, highlights the fact that Allies may consult together when the security of any of them is threatened. While it has only been invoked five times in the six decades since NATO's creation, spurred by events in Ukraine and Syria, three of those have come in the past four years. Aside from these Article 4 consultations, NATO practices consultation on an almost daily basis.

Article 5 is the most known and understood Article and it emphasizes the responsibility of Allies to respond collectively to attacks on any member state. As declared by the Heads of State and Government at the Wales Summit, the events of the past two years have reminded us all of our responsibilities to each other and that "the safety of our citizens and protection of territory is the foremost responsibility of our Alliance." In response to a changed security environment, NATO is adapting its processes, increasing its responsiveness and renewing its focus on collective defense by enhancing the Alliance's deterrence and defense posture, including increased awareness, resilience, readiness, solidarity, and engagement. Even so, additional work needs to be done to improve intelligence sharing and indicators and warnings among NATO members.

NATO's ability to perform its core tasks is underpinned by the capabilities provided by each member state. It is publicly acknowledged by all Allies that defense spending, in support of the right capabilities, must increase. While there is much to be done by all Allies to ensure the needed capabilities are present for today's strategic environment, there are some promising trends. In 2015, 21 Allies halted or reversed declines in defense investment as a percentage of GDP, and 24 halted or reversed declines in equipment investment as a percentage of defense investment. Five Allies met the 2% of Gross Domestic Product guideline in 2015, compared to just three in 2013. Eight Allies allocated the NATO guideline of 20% or more of their defense budgets to equipment in 2015, up from four in 2013.

III. Executing EUCOM Missions

On any given day, EUCOM forces throughout Europe are engaged in a variety of activities to deter Russia, and counter the threats posed to our Allies and partners. These missions include: (1) training and exercising 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 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. This includes the ability to appropriately base and provide logistics support functions to forces assigned to operations in the AFRICOM and CENTCOM areas of responsibility.

A. Deter Russia

Russia's continued aggressive actions and malign influence remain a top concern for our nation and my highest priority as EUCOM Commander. The cease fire in eastern Ukraine remains tenuous at best, and Russia continues its destabilizing activities in direct contravention of the Minsk agreements. Russia also shows no signs of engaging in dialogue over its illegal occupation of Crimea, and seems intent on transforming this situation into a permanent redrawing of sovereign boundaries in Europe. While the U.S. and European nations have responded with diplomatic and economic sanctions, Russia continues its aggression in eastern Ukraine by providing personnel, equipment, training, and command and control to combined Russian-separatist forces. EUCOM, along with Allies and partners, continue to contribute to Ukraine's efforts to build its own defense capabilities, including providing training for Ukraine's armed forces. It also continues to destabilize countries throughout its periphery. We must not allow Russian actions in Syria to serve as a strategic distraction that leads the international community to give tacit acceptance to the situation in Ukraine as the "new normal." Shortly after Russia's illegal occupation of Crimea, our immediate focus was on assuring our Allies, through Operation ATLANTIC RESOLVE, of our steadfast commitment to NATO's Article 5 provision on collective defense. Now that we are nearly two years into this operation, our efforts are adding a deterrence component with the goal of deterring Russia from any further aggressive actions. These supporting roles tax the capacity of EUCOM's assigned forces, straining our ability to meet other operational requirements.

As the Department continues to refine a holistic U.S.-Russia defense strategy, events in Europe continue to evolve. As a result of emergent requirements, EUCOM has undertaken a number of assurance and deterrence measures that will continue throughout 2016 and are greatly expanded in the fiscal year (FY) 2017 Budget request.

European Reassurance Initiative (ERI). ERI continues to provide the additional funding that allows us to increase our assurance activities throughout the EUCOM AOR. EUCOM believes that the strategy of assuring our NATO Allies and Partners while seeking to deter Russia from further aggression, as undertaken by the Department, through ERI has significantly helped EUCOM with the dynamic security challenges within the AOR. We are grateful for the strong congressional support of this initiative that reassures and bolsters the security and capacity of our NATO Allies and partners. With your continued support, we will use FY17 ERI request to expand deterrence measures against Russian aggression. As an example of assurance measures, the U.S. Army deployed an Armored Brigade Combat Team (ABCT) set of equipment (known as the *European Activity Sets* (EAS)) to the European theater. EUCOM is currently distributing Company and Battalion sized elements of the equipment along NATO's eastern border. This equipment is used by the Army's regionally aligned force personnel for the purpose of training and exercising with our Allies. Storing and maintaining EAS equipment in this manner helps reduce transportation time and costs and reassures Allies and partners in the region of our steadfast commitment.

With the FY17 ERI submission, EUCOM supports the Army's effort to increase *Army Prepositioned Stocks* (APS) unit sets to increase deterrence. This set of equipment helps shorten the response time in a time of crisis. EUCOM plans to use existing infrastructure for APS unit set storage and maintenance to the maximum extent possible, to include former locations used by the United States for this purpose. New locations, however, may be needed given the 80% reduction of European infrastructure over the past 25 years and NATO's expansion along its eastern boundary.

The United States, along with its NATO Allies, will continue to take actions that increase the capability, readiness, and responsiveness of NATO forces to address any threats or destabilizing actions from aggressive actors. Over the last 15 months we have helped NATO members better defend themselves, along with non-NATO partners in the region, who feel most threatened by Russia's actions against Ukraine. Continued congressional support sends a clear message to the Russian leadership the United States is wholly committed to European security.

Reassurance Measures. Operation ATLANTIC RESOLVE supports the mission to assure and defend NATO, enhance our Allies' and partners' abilities to provide their own security, and deter further Russian aggression. EUCOM engagement, training, exercise, and

cooperative activities will continue to support enabling regional cooperation with our Allies and partners to address the challenges on Europe's eastern and southern flanks, and the threats emanating from and within Europe. These activities will enable the timely generation of fit for purpose forces, capable of addressing common and collective security challenges within Europe.

Russia Strategic Initiative (RSI). A Russia staunchly committed to challenging international norms is not just a EUCOM security challenge, but a challenge for the entire Department of Defense. We need look no further than its ongoing intervention in Syria and the serious operational implications it presents CENTCOM. Accordingly, we are addressing this threat collectively across numerous Combatant Commands through the Russia Strategic Initiative (RSI). RSI provides the Combatant Commanders a framework for understanding the Russian threat and a forum for integrating and coordinating efforts and requirements related to Russia. RSI allows us to confront this immediate threat to ensure we maximize the deterrent value of our activities without inadvertent escalation. RSI also provides DoD an avenue to analyze the Russia problem set across the interagency, academia, and think tanks for broad perspectives on an extremely complex problem.

Strategic Messaging and Countering Russian Propaganda. EUCOM's strategic communications, information operations (IO), and related influence capabilities such as Military Information Support Operations (MISO) are the most powerful tools EUCOM has to challenge Russian disinformation and propaganda. Russia overwhelms the information space with a barrage of lies that must be addressed by the United States more aggressively in both public and private sectors to effectively expose the false narratives pushed daily by Russian-owned media outlets and their proxies. As part of the FY17 ERI request, EUCOM has requested the authority and appropriation to conduct IO. EUCOM will continue to increase its collaboration with Department of State, other agencies, partners, and Allies in order to effectively engage select audiences and counter malign actions and activities.

B. Support to Allies and Partners

Support to NATO. EUCOM is the visible symbol of the United States' commitment to the NATO Alliance. The Command serves as a key agent to build capabilities and conduct NATO operations. EUCOM will continue to support regional cooperation with our Allies to address the challenges within Europe as well as those coming from its eastern and southern

flanks, enabling the generation of forces capable of addressing common and collective security challenges.

The Allies' commitment under Article 3 of NATO's Washington Treaty, with its dual principles of "self-help and mutual aid," provides the basis of EUCOM's security cooperation in support of NATO. EUCOM is a key enabler for the Alliance's unique and robust set of political and military capabilities to address a wide range of crises before, during, and after conflicts. EUCOM assists Allies in building security capacities, command and control, interoperability, and deployability to provide their own internal security, contribute to regional collective security, and conduct multilateral operations.

EUCOM also supports NATO's actions with crisis management, operations and missions. With the invocation of Article 4 consultations by Turkey and Poland in recent years, EUCOM has worked with other Allies through OAR, theater security cooperation programs, and air defense support to Turkey to provide a tangible Alliance response.

U.S. support to the continued implementation of NATO's Readiness Action Plan (RAP) is essential for a credible Article 5 deterrence. The RAP contains new operations plans, an enhanced NATO Response Force with quicker deployment times and assigned forces, new authorities for SACEUR, and an improved NATO command structure. The U.S. pledge to contribute key enablers is critical to the success of the Very High Readiness Joint Task Force (VJTF), while seven Allies (France, Germany, Italy, Poland, Spain, Turkey, and the United Kingdom) have committed to provide the lion's share of land force contributions. EUCOM has also continued its support to other key aspects of the RAP, including maintaining continuous presence in the eastern portions of NATO, establishing prepositioned supplies and equipment, enhancing the capabilities of NATO's Multinational Corps North East and Multinational Division South East, and the establishment of a NATO command and control presence on the territories of eastern Allies. Continued U.S. support on all of these efforts is essential to ensuring Allied cohesion and capability to meet our collective Article 5 commitment.

Missile Defense in Europe. EUCOM continues to implement the three phases of the European Phased Adaptive Approach (EPAA) and deepen our missile defense partnerships and assurances within NATO. Phase 2 of the EPAA, the first Aegis Ashore Missile Defense System (AAMDS), which is located in Deveselu, Romania, will provide enhanced medium-range missile defense capability, to expand upon Phase 1, which has been operational since 2011. While

EUCOM has benefited tremendously from the Phase 1 forward deployment of four Aegis ballistic missile defense (BMD) capable surface ships to Rota, Spain, this capability is greatly enhanced by the on-schedule completion in December 2015 of the AAMDS site in Romania, the final building block of Phase 2. EUCOM is working to certify the site's capability and ensure its interoperability with NATO command and control systems. To validate this construct, EUCOM and our NATO Allies will be conducting test and evaluation exercises, and we look forward to certifying our command and control interoperability, and delivering the key capability to NATO.

As we complete the work on Phase 2, EPAA Phase 3, which includes the second AAMDS at Redzikowo, Poland, is on track for completion in the 2018 timeframe. The basing agreement is complete and was ratified by the Polish Parliament by an overwhelming majority. The implementing arrangements are progressing on schedule, meeting both U.S. and Polish expectations, and Poland continues to invest heavily in preparing for the AAMDS deployment. Building upon Phase 1 and 2, the AAMDS site in Poland will support EUCOM plans and operations and represent the U.S. voluntary national contribution to NATO's missile defense of European populations, forces, and territory.

Within NATO, EUCOM is working with key Allies such as Spain and the Netherlands who continue to invest in air and upper tier ballistic missile defense, and are considering investment in capabilities which complement the U.S. Aegis ballistic missile defense capability. Another shared concern is defense of the Aegis Ashore sites.

To support other key allies, U.S. Army Europe's 10th Area Air Defense Command and 5th Battalion 7th Air Defense Artillery Regiment have been doing yeoman's work in their deployments to Turkey and supporting engagement and exercises with NATO, Poland, Germany, Romania, Israel, and many other nations. As their strikes in Syria have made clear, Russia presents a robust potential threat across the range of ballistic and cruise missiles from land, sea, and air. EUCOM requires the ability to protect our headquarters, bases, and forces. Since BMD forces worldwide are strained, EUCOM has diligently engaged with our Service components, fellow combatant commands, the Missile Defense Agency, and the Joint Staff to find solutions and drive future capability deliveries to address current and future threats. We ask for continued Congressional support in these efforts.

Cyber Operations. Emerging threats to national security, spurred by the global diffusion of information, advancements in technology, and a rapidly changing operational environment are

impeding both U.S. and our Allies' ability to operate freely in the cyber domain. Both state and non-state actors have offensive cyber capabilities that can disrupt and damage weapon systems, platforms, and infrastructure throughout our AOR. Non-state actors are seeking to develop capabilities to conduct sophisticated cyber-attacks in the future and will likely pose an increasingly dangerous threat to our forces.

Our theater cyberspace supporting strategy is the foundation of all cyber operations in the EUCOM AOR and enables us to integrate cyber operations with the other warfighting domains to achieve campaign objectives. Among the Command's top priorities are the full implementation of Joint Information Environment (JIE) and a Mission Partner Environment (MPE). JIE is DoD's initiative to address the security, effectiveness, and efficiency challenges of the current and future Information Technology (IT) environment. MPE is DoD's initiative to enable operations with allies and other partners, both inside and outside of the DoD, in support of ongoing and future operations. While much more work must occur, EUCOM is already beginning to reap the benefits of these initiatives to enhance our mission effectiveness, improve cyber security and reduce risk to missions and our forces.

Nuclear Deterrence and Weapons of Mass Destruction (WMD). The supreme guarantee of Alliance security is provided by its strategic nuclear forces, particularly those of the United States. EUCOM collaborates closely with U.S. Strategic Command to assure Allies of the U.S. commitment to the Alliance, including, for example, bomber assurance and deterrence missions. 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." Consistent with NATO's commitment to the broadest possible participation of Allies in the Alliance's nuclear sharing arrangements, EUCOM maintains a safe, secure, and effective theater nuclear deterrent in support of NATO and as an enduring U.S. security commitment within the EUCOM AOR. Through rigorous and effective training, exercises, evaluations, inspections, operations, and sustainment, EUCOM ensures that U.S. nuclear weapons and the means to support and deploy those weapons are ready to support national and Alliance strategic objectives.

WMD in the hands of a state or non-state actor, continue to represent a grave threat to the United States and the international community. Through our Countering WMD Cooperative

Defense Initiative Program, EUCOM executes bilateral, regional, and NATO engagements to bolster our collective capability to counter the proliferation of WMD (and their precursors) and mitigate the effects of a WMD event.

Foreign Fighters. The flow of returning foreign terrorist fighters to Europe and the United States poses a significant risk to our European forward-based forces and the homeland. Actively encouraged by ISIL, returning foreign terrorist fighters are mounting attacks, a problem that will magnify as the flow of returning individuals increases over time.

Our Allies and partners share these concerns. EUCOM works in conjunction with the Department of State, AFRICOM and CENTCOM 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. We are pursuing efforts bilaterally, regionally, and within a NATO construct to reduce the potential for successful terrorist attacks within EUCOM and at home. USAREUR has created a program called WOLFSPOTTER whereby they integrate various intelligence feeds and share those effectively with partners to assist in the identification of “lone wolf” actors more effectively.

Foreign Military Sales (FMS). Foreign Military Sales benefits not only interoperability with our Allies and partners, but also our defense industrial base, with defense articles and services totaling well over \$5 billion per year in the European theater. From Israel to the Arctic, our FMS programs are improving Alliance capabilities and meeting the challenges associated with meeting NATO’s capability targets.

FMS offers opportunities for the United States to improve the trends in European capability acquisition. Our Allies and partners understand the quality of our FMS program in comparison with other sources of defense articles and services, and seek ways to acquire our defense articles while balancing the requirements of the European Union and offers from other sources. Recognizing the quality we offer comes with a high price tag, EUCOM encourages our partners to engage in shared FMS actions by pursuing multi-national and multilateral FMS solutions in order to reduce costs for participants and provide opportunities to pool and share resources, increasing NATO capabilities across the theater.

EUCOM appreciates the various Congressionally-authorized Building Partner Capacity (BPC) programs which engage the FMS infrastructure to provide defense articles and services more quickly than traditional FMS, as illustrated by our actions in the Baltics and Ukraine.

These BPC processes are benefitting the readiness, capability, and interoperability of nearly all of our partners in Central and Eastern Europe.

C. EUCOM Support to NATO in Afghanistan

The continued operational and financial support of NATO and other partners is a crucial pillar of building sustainable security in Afghanistan. NATO has transitioned from International Security Assistance Force (ISAF) to the RESOLUTE SUPPORT Mission (RSM). Our European Allies and partners continue to bear the burden of providing the bulk of forces, second only to the United States. As we conduct RSM, EUCOM will continue to prepare our Allies and partners for deployments to support the train, advise, and assist mission. Authorities such as Global Lift and Sustain, “Section 1207” (loan of certain U.S. equipment to coalition partners), 10 USC 2282 (global train and equip authority), and the Coalition Readiness Support Program are absolutely essential for EUCOM to provide Allies and partners with logistical support and continued interoperability with U.S. and NATO forces. These authorities allow countries to receive much needed equipment such as intelligence, surveillance, and reconnaissance assets; interoperable communications gear; counter-IED and explosive ordinance disposal equipment; medical equipment; and night vision devices; as well as training to effectively use the equipment.

D. Assistance to Israel

A continued deterioration of security in the Levant region is a threat to the stability of Israel and neighboring countries. With limited warning, war could erupt from multiple directions with grave implications for Israeli security, regional stability, and U.S. interests.

EUCOM primarily engages with Israel through our Strategic Cooperative Initiative Program and numerous annual military-to-military engagements that strengthen both nations’ enduring ties and military activities. The U.S.-Israel exercise portfolio includes major bilateral exercises and continued engagement resulting in renewed and strengthened U.S.-Israeli military and intelligence cooperation relationships. Through these engagements, our leaders and staff maintain uniquely strong, frequent, personal, and direct relationships with their Israeli Defense Force counterparts.

The direct threat to Israel by ballistic missiles and rockets with longer range and increased accuracy pose a significant challenge. EUCOM maintains plans to deploy forces when requested in support of the defense of Israel against ballistic missile attacks. EUCOM also conducts maritime BMD patrols and weekly training exercises in cooperation with Israel. The

U.S. and Israel have continued to execute the “Combined U.S.-Israel BMD Architecture Enhancement Program,” which includes both exercises and dedicated test events managed by the Missile Defense Agency, all supported by EUCOM.

E. Support to other Combatant Commands

In addition to EUCOM’s responsibilities as a warfighting command, it also must serve in the role of a supporting command.

EUCOM continues to provide direct operational support to AFRICOM by deterring growing opportunities for al-Qaeda and its affiliates and adherents, ISIL, and other terrorist organizations and criminal networks across the African continent. As the supporting command to CENTCOM for Operation INHERENT RESOLVE, EUCOM continues to provide combat ready forces, force enablers, and critical combat support in the fight against ISIL in both Iraq and Syria. Turkey has expanded its role in the counter-ISIL coalition, allowing the United States to stage armed aircraft from Incirlik Airbase, and has increased its internal security operations against the group. ISIL can no longer view Turkey as a permissive operating environment and will likely attempt targeted attacks against U.S. and Turkish government.

EUCOM’s postured forces remain ready for rapid reaction in the volatile environments of North Africa and the Middle East. Special Operations crisis response forces based in Europe continue to provide immediate theater response capability, while remaining prepared to support inter-theater Combatant Command requirements, primarily with aerial lift assets. In 2016, Special Operations Command Europe will assume the role of NATO Response Force Special Operations Component Command. The Marines of the Special Purpose Marine Air Ground Task Force in Spain, Italy, and Romania are ready to respond in Africa and Europe. Strike and associated support aircraft stationed in Germany, Italy, and the United Kingdom are also on alert to react to crises as needed. Strategic facilities and associated access agreements with European Allies and partners enable EUCOM to support this vital mission of protecting U.S. personnel and facilities.

The mature network of U.S. operated bases in the EUCOM AOR provides superb training and power projection facilities in support of steady state operations and contingencies in Europe, Eurasia, Africa, and the Middle East. This footprint is essential to TRANSCOM’s global distribution mission and also provides critical basing support for intelligence, surveillance, and reconnaissance assets flying sorties in support of AFRICOM, CENTCOM,

EUCOM, U.S. Special Operations Command, and NATO operations. For example, over the past two years, EUCOM forces provided logistics enabling capabilities at airfields throughout Europe to forces deploying to the Central African Republic, enabling AFRICOM to support the African-led, multinational effort to stabilize that nation. Strategic facilities and associated access agreements with European Allies and partners enable EUCOM to support this vital mission of protecting U.S. personnel and facilities. An increasing number of embassies and consulates, however, remain at risk, on both the African continent and within Europe. AFRICOM maintains no permanent bases outside the Horn of Africa that can support forces assigned to this mission. Moreover, the capabilities available for EUCOM force protection are not keeping pace with the number of at-risk locations and people, and the magnitude of the threats they face.

At the same time, EUCOM is supporting DoD and State Department efforts to establish and/or improve agreements with several eastern European and the Baltic countries. We believe these formal agreements will enhance bilateral relations and also serve as a means to convey the U.S. commitment throughout the region.

Finally, and most importantly, EUCOM plays a supporting role to U.S. North Command and U.S. Pacific Command in defense of the homeland.

IV. EUCOM Capabilities and Resource Requirements

Setting the Theater. Given the historic changes in our security environment, we must reassess how our resources meet the most imminent and dangerous threats. EUCOM supports the Department's strategy providing a mixture of assurance to our NATO Allies and Partners and activities that deter Russia. As the dynamics of this strategy continue to shift, EUCOM finds that ERI fills many of the personnel, equipment, and resource gaps we need to meet the Russian aggression. As stated earlier, our current force posture in Europe has been based on Russia as a strategic partner. EUCOM greatly appreciates the authorization and appropriations for ERI by Congress over the past two years, which has mitigated the risks and improved EUCOM's ability to meet its strategy. ERI has also reduced the challenges associated with reductions in our permanent force posture. EUCOM finds itself in a shifted paradigm where the strategic threat presented by Putin's Russia requires we readdress our force allocation processes to provide a credible assurance against what remains the only nation capable of strategic warfare against the homeland. Looking forward we will need to continue to appropriate prioritize the requirements of this theater. EUCOM will most likely require continued Congressional support in the future—

at a minimum of FY17 PB levels –as we effectuate all elements of the planning efforts currently underway. Additional assets are required from Army, Navy and the Air Force to ensure we are able to perform our missions within the AOR. Further, EUCOM needs additional intelligence collection platforms, such as the U2 or the RC 135 to assist the increased collection requirements in the theater.

The augmentation of additional forces and APS in the FY17 budget continue the process of helping EUCOM meet several of its resource needs. The challenge EUCOM faces is ensuring it is able to meet its strategic obligations while primarily relying on rotational forces from the continental United States. Congressional support for ERI helps mitigate this challenge. The European-based U.S. infrastructure that supports EUCOM, CENTCOM, AFRICOM, and SOCOM exists as a result of the established relations between EUCOM forces and host nations. 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 force reductions will likely reduce our access and host-nation permissions to operate from key strategic locations during times of crisis. I am aware, however, of the tremendous demands on our current force structure and the numerous competing factors involved in managing the force.

Combatant Commanders Exercise and Engagement Training and Transformation (CE2T2) Fund. The CE2T2 fund is used to train U.S. Joint Forces at the strategic and operational levels. The CE2T2 has been instrumental to fund the EUCOM Joint Exercise Program, support interoperability with NATO and sustain theater security cooperation through EUCOM regional exercises. The CE2T2 is the only funding the COCOM has that is identified for Joint Training and establishes the foundation of the theater Joint Exercise portfolio. We encourage Congress to continue funding CE2T2. CE2T2 funding increases the readiness of our Joint Force, improves opportunities for our organic, rotational and regional aligned forces to jointly train with and engage with our Allies and Partners.

European Reassurance Initiative (ERI) Requirements. In FY17, we seek to continue a majority of the initiatives previously funded in FY15 and FY16. However, as you have seen, the FY17 ERI request greatly expands our effort to reassure allies and deter Russian aggression.

We plan to continue to pursue the lines of effort currently underway in FY17: (1) increase the level of rotational military presence in Europe; (2) execute additional bilateral and

multilateral exercises and training with allies and partners; (3) enhance prepositioning of U.S. equipment in Europe; (4) continue to improve our infrastructure to allow for greater responsiveness; and (5) intensify efforts to build partner capacity with newer NATO members and partners. However, in light of the new security environment, in addition to the continuance of assurance measures, we are strengthening our posture in Europe.

EUCOM Headquarters Manning. Since the end of the Cold War 25 years ago, EUCOM forces and resources have been on a steady decline while our nation appropriately refocused its global security efforts elsewhere. We embarked on a policy of ‘hugging the bear’ with what we perceived was a former adversary turned strategic partner. The current force structure in Europe, most recently influenced by the 2012 Defense Strategic Guidance and our rebalance to the Asia/Pacific, is roughly 80% smaller than in 1991—making it the smallest COCOM—and is resourced with the strategic assumption that Russia is a partner, not a threat. EUCOM understands Congressional desire to reduce the size of headquarters across the Department. However, Congressional mandates to further reduce headquarter sizes come as the command is transforming from one focused on theater security cooperation to one focused on warfighting.

EUCOM’s Footprint Network. As EUCOM continues to implement the 2014 European Infrastructure Consolidation (EIC) decisions, we will ensure that remaining 1 properly supports operational requirements and strategic commitments. The Department is considering whether an emerging need exists to augment the remaining infrastructure to support assurance and deterrence activities in Europe. As discussed earlier, Congressional approval of last year’s ERI last year permitted the deployment of an European Activity Set (for training purposes) into theater, while the FY17 request seeks Congressional authorization and appropriation for APS (for crisis response). This equipment in the EUCOM AOR supports the rapid introduction of forces, reduces demands on the transportation system, and appreciably shortens response times. Just as important, it helps assure Allies of continuing U.S. commitment and supports a wide spectrum of options, from traditional crisis response to irregular warfare.

Key Military Construction Projects (MILCON). EUCOM’s FY17 military construction program continues to support key posture initiatives, recapitalize infrastructure, and consolidate enduring locations. I appreciate Congress’s willingness to continue to fund these priorities, in particular ERI projects, the Landstuhl Regional Medical Center/Rhine Ordnance Barracks theater medical consolidation and recapitalization project (ROBMC), and the relocation of the Joint

Intelligence Operations Center Europe (JIOCEUR) and Joint Analysis Center (JAC) to Croughton, United Kingdom.

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. This project is vital to continuing the availability of the highest level trauma care for U.S. warfighters injured in the EUCOM, CENTCOM, and AFRICOM theaters.

Another key EUCOM MILCON priority project is the consolidation of the Joint Intelligence Operations Center Europe Analytic Center and other intelligence elements at RAF Croughton, UK. The Department requested Phase 1 planning and design funding for the consolidation during FY15, with three phases of MILCON construction in FY15-17 respectively. Phases 1 and 2 have been authorized and appropriated over the past two legislative cycles. We anticipate the construction completion will occur in FY20/21. 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 the current substandard and deteriorating facilities. The RAF Croughton site also ensures continuation of the strong EUCOM-UK intelligence relationships and our sponsorship of the co-located NATO Intelligence Fusion Center. The maintenance of our intelligence relationships and the intelligence sharing we maintain with the UK and NATO remains vital to EUCOM's capability to conduct military operations from and within Europe.

Information Operations. As mentioned previously, Russia dedicates enormous resources and intelligence efforts in shaping its information operations domain. This is a key enabler for its aggressive hybrid tactics executed in Eastern Europe to distribute its propaganda campaign and help fabricate facts on the ground when needed. EUCOM's efforts in coordination with the interagency on countering this messaging campaign are critical in our overall assurance and deterrence measures.

V. Conclusion

As I prepare to conclude my time in command, I would like to reiterate how proud I am to have been given the opportunity to Command this team of professionals. EUCOM is a tremendous organization doing extraordinary things with limited resources to ensure we achieve our mission and objectives.

I cannot emphasize enough the somber reality that Europe will remain central to our national security interests. From having fought two world wars in part on European soil to the current instability in the east and south of Europe, our nation must remain indisputably invested in a region that is inexorably tied to our own freedom, security and economic prosperity. The Russia problem set is not going away, and presents a new long term challenge for the EUCOM area of responsibility and our nation. Russia poses an existential threat to the United States, and to the NATO alliance as a whole. It applies an impressive mixture of all elements of national power to pursue its national objectives, to include regular reminders of its nuclear capabilities. While Russia understands the importance of NATO and its Article 5 commitment, it has embarked on a campaign to corrupt and undermine targeted NATO countries through a strategy of indirect, or “hybrid,” warfare.

Besides dealing with an aggressive Russia, Europe also faces the challenges of ISIL, managing the flow of migrants, and foreign terrorist fighters from the Levant and Middle East. In my opinion, these new threats emanating from the south and integrating throughout the continent will get worse before they get better. They will continue to stress the already strained European security elements, which will only embolden our common state and non-state adversaries.

EUCOM needs to be better postured to meet our assigned missions, including those in support of AFRICOM, CENTCOM and other combatant commands. With your support of the FY17 budget request, EUCOM will be better postured to meet these assigned missions. Additionally, EUCOM needs Congress’ support for a credible and enduring capability that assures, deters, and defends with a coordinated whole-of-government approach. This EUCOM team will continue to relentlessly pursue our mission to reestablish a Europe that is whole, free, at peace, and prosperous.

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

TUESDAY, MARCH 15, 2016.

TESTIMONY OF MEMBERS OF CONGRESS

WITNESSES

HON. DAVID VALADAO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

HON. MIKE BOST, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

HON. MARTHA McSALLY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

HON. BRADLEY BYRNE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ALABAMA

HON. PETE AGUILAR, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

HON. GLENN THOMPSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA

HON. JIM BRIDENSTINE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OKLAHOMA

HON. PAUL COOK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

HON. TED LIEU, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

HON. DAVE REICHERT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

HON. EARL L. CARTER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF GEORGIA

HON. WILLIAM CLAY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI

HON. CHRIS GIBSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

HON. PATRICK MEEHAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA

HON. EARL BLUMENAUER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

HON. ANN WAGNER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI

HON. NIKI TSONGAS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MASSACHUSETTS

HON. JOSEPH P. KENNEDY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MASSACHUSETTS

HON. MO BROOKS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ALABAMA

OPENING STATEMENT OF CHAIRMAN FRELINGHUYSEN

Mr. FRELINGHUYSEN. Good morning, the committee will come to order. This morning, the 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 said fiscal year 2017. At this time, I would like to recognize my ranking member, Mr. Visclosky, for any statement he would like to make.

Mr. VISCLOSKY. Mr. Chairman, I do. One, I deeply apologize to you, staff, the Members for being tardy. This was being completely stupid this morning. I don't have a coat, wallet, other things, so I won't delay any further except everybody's time is important, and again, I apologize.

I do thank you for holding this hearing, because it is important to the business of this country to hear from our colleagues in the concerns they have about programs, problems, issues in their district, so I am delighted to be here. And I again, appreciate you holding the hearing.

Mr. FRELINGHUYSEN. Thank you, Mr. Visclosky. One of those colleagues, the first one we will welcome today is David—

Mr. VALADAO. David Valadao.

Mr. FRELINGHUYSEN [continuing]. From California, and we will proceed in order, but we thank Mr. Bost for being here.

SUMMARY STATEMENT OF CONGRESSMAN VALADAO

Mr. VALADAO. Thank you, Chairman, Ranking Member. I appreciate the opportunity. I am proud to be here to testify before you on behalf of California's 21st congressional district, and in particular, the Navy warfighters who are stationed at Naval Air Station Lemoore, which I am fortunate enough to represent.

As you may know, NAS Lemoore is the West Coast's home basing for the Navy's most important tactical aviation. With more than 40 aviation tenants, including the Strike Fighter Wing Pacific, the Strike Fighter Weapons School Pacific, and NAS Lemoore is critical to operations in the Asia Pacific region.

NAS Lemoore will soon be home to yet another squadron of F/A-18 Hornets, and next year they will begin to receive F-35C aircraft, becoming one of the first air stations in the Navy to do so.

During my time here in Congress, I have been honored to meet the men and women who serve at Lemoore and work with them on making sure they have the tools and resources necessary to be the most effective warfighters in the Armed Services. They serve their country with honor and distinction, and I am committed to ensuring their missions are met with success.

I am testifying today to discuss the importance of the aircraft in which these men and women fly and maintain. Last summer, I embarked aboard the USS *Ronald Reagan* aircraft carrier. While I was aboard, I was able to witness the incredible aircraft that the pilots stationed at Lemoore fly on a daily basis in support of our critical operations in Asia—in the Asia Pacific region.

The lifeblood of the Navy's air fleet is the F/A-18-E/F Super Hornet, and these aircraft will soon be joined by the 5th-generation F-35C aircraft.

When they are not stationed at NAS Lemoore, the Super Hornets are the premier strike fighters for the U.S. aircraft carriers deployed throughout the world. Whether it is against ISIS or the next

conflict to arise suddenly, the F/A-18s are the first aircraft on site ready to execute the mission until they can be supported by other forces.

Unfortunately, the fiscal year 2017 budget does not add sufficient number of Super Hornets to meet the Navy's demands. The Navy faces a tactical aviation shortfall of roughly 36 Super Hornets. This shortfall results from incredibly high utilization rates fighting our enemies.

Before this subcommittee, the Secretary of the Navy testified that his top unfunded requirement is the 14 additional Super Hornets to help address this shortfall. These aircraft will not only address the near term demand, but they will also help fill the manufacturing gap until next year when the Navy plans to buy 14 more Super Hornets.

There is no greater responsibility in Congress than to provide resources for our national defense. This subcommittee is always thoughtful about the decisions it makes. Even these times—even in these times of fiscal austerity, we must ensure that our men and women in uniform receive the training and equipment they need to defend the freedoms we as Americans enjoy every day.

I ask this subcommittee to consider the Navy's top unfunded requirement of 14 additional Super Hornet aircraft. It will make a difference at NAS Lemoore, and for the warfighter. As our Nation continues to pivot to Asia, it is important that we maintain superior air power.

I am proud that the Navy announced in 2014 that after carefully weighing the strategic, operational, and environmental consequences, that the Navy will base the F-35C aircraft at NAS Lemoore. I have been working with the men and women at NAS Lemoore as they prepare the air station for the arrival of the aircraft. We have been working on military construction projects that include expanded aircraft hangers, maintenance facilities, as well as the elite training facilities to get our pilots up to speed on flying the F-35C.

This is an exciting time for the—for people of California's 21st congressional district and those stationed at the base. The F-35 program will serve as the 5th-generation multi-role fighter for the U.S. Navy, U.S. Air Force, U.S. Marine Corps, and eight allied partners, and currently, three foreign military sales—and currently, three foreign military sales countries. It will allow our services and the services of our allied partners to recapitalize a rapidly aging fleet and next generation—with next-generation capability.

For the Navy, the F-35 will be a critical provider of information to the Carrier Strike Group, providing superior situational awareness to both aircraft and ships in the strike group. Studies show when you add F-35Cs to the carrier air wing, the air wing is more lethal.

NAS Lemoore will be the West Coast home for a total of 100 F-35C aircraft. It will host seven Navy Pacific fleet squadrons, 10 aircraft per squadron, and the fleet replacement squadron, 30 aircraft, beginning in 2016.

They will receive their full complement of F-35C aircraft by 2028. These F-35 aircraft will be the first 5th-generation aircraft flown by the Navy and critical for the Navy to survive flying in an

advanced threat environment. These multi-role aircraft will integrate with the F/A-18 Super Hornet aircraft that operate at NAS Lemoore today.

The basing of the F-35C fleet is estimated to require 751 new military and contractor personnel for mission support with an estimated \$35.5 million cost in annual payroll.

This will inject much needed economic stimulus into our suffering region, and basing the F-35C at NAS Lemoore will further result in an increase of about 68,400 operations per year in NAS Lemoore.

The home basing for the F-35 aircraft will make NAS Lemoore a significant source of the Navy's strike power in the Pacific and enable our region to play a significant role in our Nation's defense for years to come.

The Navy has had to make tough choices in deferring buying F-35 aircraft in the numbers it should in order to accelerate modernization of its tactical aviation fleet, but given the current geopolitical and international state of affairs, investing in 5th generation is not a luxury, but a necessity.

The fiscal year 2017 budget includes \$10.5 billion for the F-35 program, and yet the services have still identified a number of unfunded requirements to include 5—4 F-35As for the U.S. Air Force, 2 F-35Cs for the Navy, and 2 F-35Bs, and 2 F-35Cs for the U.S. Marine Corps.

I would urge the committee fully fund this program and support the unfunded requirements. The F-35C will be critical to ensuring that when operating in a contested airspace, our men and women can return home.

The importance and value of NAS Lemoore to California's 21st District and to the Central Valley cannot be questioned. The economic impact of the air station is estimated at close to a billion, and our local businesses and industries are proud to work hand in hand with NAS Lemoore.

As I have stated before, it is an honor to be able to testify before you today and represent the men and women at NAS Lemoore and make sure that they are provided the resources necessary to be effective warfighters. Supporting both the F-18 and the F-35 programs is vital to ensuring our Navy does not experience a shortfall.

Our Nation continues its fight against ISIS as well as the growing number of diverse threats we face. We must do all we can to maintain superiority of the air, and we cannot afford to lose this priority. I urge the committee to fully fund both programs. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you for being here on behalf of NAS Lemoore, and obviously, more Super Hornets and F-35s are coming your way. Thank you for being a strong supporter of national security.

Mr. VISCLOSKEY. Mr. Chairman, just to add, I think our next witness is going to talk about Operation Tempo, so one of the things that we are very concerned about is not only the acquisition of those aircrafts, but to make sure we have the pilots to fly them, we have the moneys to maintain them, and for operation, so we do appreciate you, concerning your testimony very much.

Mr. VALADAO. Thank you for your time.

[The written statement of Congressman Valadao follows:]

House Appropriations Subcommittee on Defense

Members Day

March 15, 2016

Testimony

Of

The Honorable David G. Valadao

Representative for California's 21st District

Chairman Frelinghuysen, Ranking Member Visclosky, and the distinguished Members of the Subcommittee, I am proud to be here testifying before you on behalf of California's 21st District and in particular the Navy warfighters who are stationed at Naval Air Station (NAS) Lemoore which I am fortunate enough to represent.

As you may know, NAS Lemoore is the West Coast's home basing for the Navy's most important tactical aviation. With more than 40 aviation tenants, including the Strike Fighter Wing Pacific and the Strike Fighter Weapons School Pacific, NAS Lemoore is critical to our operations in the Asia Pacific region. NAS Lemoore will soon be home to yet another squadron of F/A-18 Super Hornets and next year they will begin to receive the F-35C aircraft, becoming one of the first air stations in the Navy to do so.

During my time here in Congress, I have been honored to meet the men and women who serve at Lemoore and work with them on making sure they have the tools and resources necessary to be the most effective warfighters in the Armed Services. They serve their country with honor and distinction and I am committed to ensuring their missions are met with success.

I am testifying today to discuss the importance of the aircraft in which these men and women fly and maintain. Last summer I embarked aboard the USS Ronald Reagan aircraft carrier. While aboard, I was able to witness the incredible aircraft that the pilots stationed at Lemoore fly on a daily basis in support of our critical operations in the Asia Pacific Region. The life blood of the Navy's air fleet is the F/A-18-E/F Super Hornet and these aircraft will soon be joined by the 5th-generation F-35C aircraft.

When they are not stationed at NAS Lemoore, the Super Hornets are the premier strike fighters for U.S. aircraft carriers deployed throughout the world. Whether it is against ISIS or the next conflict to arise suddenly, F/A-18s are the first aircraft on site ready to execute the mission until they can be supported by other forces.

Unfortunately, the Fiscal Year 2017 does not add sufficient number of Super Hornets to meet the Navy's demands. The Navy faces a tactical aviation shortfall of roughly ~36 Super Hornets. This shortfall results from incredibly high utilization rates fighting our enemies. Before this Subcommittee, the Secretary of the Navy testified that his top "unfunded requirement" is 14 additional Super Hornets to help address this shortfall. These aircraft will not only address the near term demand, but they will also fill the manufacturing gap until next year when the Navy plans to buy 14 more Super Hornets.

There is no greater responsibility in Congress than to provide resources for our national defense. This Subcommittee is always thoughtful about the decisions it makes. Even in these times of fiscal austerity, we must ensure that our men and women in uniform receive the training and equipment they need to defend the freedoms we as Americans enjoy every day.

I ask that this Subcommittee consider the Navy's top unfunded requirement of 14 additional Super Hornet aircraft. It will make a difference for NAS Lemoore and for the warfighter. As our nation continues the pivot to Asia, it is vital that we maintain superior air power.

I am proud that the Navy announced in 2014 that after carefully weighing the strategic, operational, and environmental consequences, that the Navy will base the F-35C aircraft at NAS Lemoore. I have been working with the men and women at NAS Lemoore as they prepare the air station for the arrival of the aircraft. We have been working on Military Construction projects that include expanded aircraft hangars, maintenance facilities as well as elite training centers to get our pilots up to speed on flying the F-35C. This is an exciting time for people of California's 21st District and those stationed at the base.

The F-35 program will serve as the 5th generation multi-role fighter for the US Navy, US Air Force, US Marine Corps, eight allied partners and currently three foreign military sales countries. It will allow our services and the services of our allied partners to recapitalize a rapidly aging fleet with next generation capability. For the Navy, the F-35 will be a critical provider of information to the Carrier Strike Group, providing superior situational awareness to both aircraft and ships in the Strike Group. Studies show that when you add F-35C's to the Carrier Airwing, the Airwing is more lethal.

NAS Lemoore will be the West Coast home base for a total of 100 F-35C aircraft. It will host seven Navy Pacific Fleet squadrons (10 aircraft per squadron) and the Fleet Replacement Squadron (30 aircraft) beginning in 2016. They will receive their full complement of F-35C aircraft by 2028. These F-35C aircraft will be the first 5th generation aircraft flown by the Navy and critical for the Navy to survive flying in an advanced threat environment. These multi-role aircraft will integrate with the FA-18 Super Hornet aircraft that operate at NAS Lemoore today.

The basing of the F-35C fleet is estimated to require 751 new military and contractor personnel for mission support, with an estimated \$35.5 million in annual payroll, this will inject much-needed economic stimulus into our suffering region. Basing the F-35C at NAS Lemoore will further result in an increase of about 68,400 operations per year at NAS Lemoore. The home basing of the F-35 aircraft will make NAS Lemoore a significant source of the Navy's strike power in the Pacific and enable our region to play a significant role in our nation's defense for years to come.

The Navy has had to make some tough choices in deferring buying F-35 aircraft in the numbers it should in order to accelerate the modernization of its tactical aviation fleet, but given the current geopolitical and international state of affairs, investing in 5th generation is not a luxury but a necessity.

The FY2017 Budget includes \$10.5 billion for the F-35 program, and yet the services have still identified a number of unfunded requirements to include 5 F-35As for

the US Air Force, 2F-35Cs for the Navy, and 2 F-35Bs and 2 F-35Cs for the US Marine Corps.

I would urge that the committee fully fund this program and support the unfunded requirements. These F-35 aircraft will be critical to ensuring that when operating in a contested airspace our men and women can return home.

The importance and value of NAS Lemoore to California's 21st District and the Central Valley cannot be questioned. The economic impact of the air station is estimated at close to \$1 billion and our local businesses and industries are proud to work hand in hand with NAS Lemoore. As I have stated before, it is an honor to be able to testify before you today and represent the men and women at NAS Lemoore and make sure they are provided the resources necessary to be effective warfighters.

Supporting both the F-18 and the F-35 programs is vital to ensuring our Navy does not experience a shortfall. As our nation continues its fight against ISIS as well as the growing number of diverse threats we face, we must do all that we can to maintain superiority in the air. We cannot afford to lose that superiority and I urge the committee to fully fund both programs.

Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you. We are pleased to welcome Congressman Mike Bost from Illinois, a Marine veteran. Thank you for being here bright and early, and I apologize for not recognizing you first, even though Mr. Valadao offered to give you his slot. Thanks for being with us.

SUMMARY STATEMENT OF CONGRESSMAN BOST

Mr. BOST. Thank you, Mr. Chairman, and thank you, Ranking Member, for allowing me to testify today. My comments will be brief.

First, I would like to discuss the Navy's need for the F/A-18 Super Hornet Strike Fighters. The F/A-18 is currently the only operational strike fighter of the United States Navy. The aircraft is conducting daily combat missions in support of operations against ISIS and all other Al Qaeda-affiliated terrorist groups in the Middle East.

However, the pace of operations is significantly—of operations is significantly wearing out existing aircraft. While Congress funds—funded the acquisition of 12 aircraft—14 aircraft, this number may still be short of what the U.S. Navy needs. The procurement of 14 additional F/A-18 Super Hornets will help avoid the operational shortfall and keep the St. Louis production line open pending aircraft sales to allied nations. Therefore, I request that the committee fund the United States Navy's request for 14 aircraft for the upcoming fiscal year.

In addition, aircraft and other weapons systems need ammunition to take the fight to the enemy. The General Dynamics plant in Marion, Illinois manufactures a variety of medium-caliber rounds used in weapons systems by all four services. Many of these munitions are highly advanced and represent the next generation of force projection and force protection technology.

Examples include the 30-millimeter K.E. ship defense munitions capability of penetrating waves and other obstacles to protect ships from swarming attack small boats, and the 20-millimeter point detonation round capable of penetrating soft targets before detonation. Each of these rounds will help protect our servicemen and women, allowing them to defend and the growing use of asymmetric tactics by our enemies.

Therefore, I urge the committee to fully fund the Service's medium-caliber round request. And again, I thank you for the opportunity to allow me to speak today, and I will be glad to answer any questions.

Mr. FRELINGHUYSEN. Mr. Bost, thank you very much for being with us, and obviously, for your own service as a Marine, I know that never stops.

Mr. BOST. No.

Mr. FRELINGHUYSEN. And for supporting the need for aircraft, and most particularly, for focus on ammunition—

Mr. BOST. Thank you.

Mr. FRELINGHUYSEN [continuing]. For what we deliver.

Mr. BOST. Yes.

Mr. FRELINGHUYSEN. It is important.

Mr. VISCLOSKEY. I appreciate you being here on your election day. It shows the importance of your—

Mr. BOST. It is important. This is vitally important. National security is the most important thing we do. Thank you.

Mr. FRELINGHUYSEN. Absolutely. Thank you very much.
[The written statement of Congressman Bost follows:]

Testimony of the Honorable Mike Bost
Before the Subcommittee on Defense
House Committee on Appropriations
March 15, 2016

Chairman Frelinghuysen and Ranking Member Smith:

Thank you for inviting me to testify today in support of those programs and activities that will help protect our servicemen and women, and which will in turn help protect our nation. There are two program areas I intend to discuss today.

First, I would like to discuss the Navy's needs for additional F/A-18 Super Hornet Strike Fighters. The F/A-18 is currently the only operational strike fighter for the United States Navy (USN). These aircraft are conducting daily combat missions in support of operations against ISIS and other al-Qaeda affiliated terrorist groups in the Middle East.

However, the pace of operations is significantly wearing out existing aircraft. While the Fiscal Year 2016 National Defense Authorization Act and the Fiscal Year 2016 Appropriations Act funded the acquisition of 12 much needed aircraft, this number may still be short of USN needs.

According to previous testimony by the USN, operational tempos are causing many aircraft to prematurely reach the end of their useful lives. The consequence is a deficit of between 24 to 36 combat-ready aircraft. Without the procurement of additional fighters, these shortfalls may grow.

The procurement of additional F/A-18 Super Hornets is critical to meeting the anticipated needs of the USN and to maintaining the viability of the St. Louis region defense industrial base, especially as the United States prepares F/A-18 Super Hornet aircraft to allied nations.

Therefore, I encourage the Committee fund the USN's request for 14 aircraft for the upcoming Fiscal Year.

In addition, aircraft and other weapons systems need ammunition to take the fight to the enemy. The General Dynamics plant in Marion, Illinois manufacturers a variety of medium-caliber rounds used in weapons systems by all four services.

Many of these munitions are highly-advanced and represent the next generation of force projection and force protection technology. Examples include the 30 mm K.E. ship defense munition, capable of penetrating waves and other obstructions to protect ships from swarm attacks by small boats, and the 20 mm Point Detonating round, capable of penetrating soft targets before detonation.

Each of these rounds will help protect our servicemen and women and allow them to defeat the growing use of asymmetric tactics favored by our enemies. Therefore, I urge the Committee to fully fund the service's medium caliber round requests.

Again, thank you for allowing me to appear today. I am ready to answer any questions from the Committee.

Mr. FRELINGHUYSEN. I am pleased to welcome Congresswoman Martha McSally—or excuse me. I am going to jump out of order here. Excuse me, Pete Aguilar from California. Excuse me.

SUMMARY STATEMENT OF CONGRESSMAN AGUILAR

Mr. AGUILAR. There is not an attendance roster there, so I understand. Thank you, Chairman Frelinghuysen and Ranking Member Visclosky. I appreciate the opportunity to speak with you today.

I wanted to highlight a few priorities for fiscal year 2017's Defense Appropriation bill that I humbly ask for your support. The use of big data by DIA and often over—an often forgotten health concern impacting our servicemen and women, possible savings connected to our Nation's carriers, and our efforts to confront the ever-growing cyber threat are all critical issues, I believe, deserve more discussion as we debate the appropriate methods to defending our Nation.

One of DIA's responsibilities includes creating and maintaining an infrastructure-focused foundational intelligence database to aid our situational awareness and mission planning activities. While it is critical that our foreign infrastructure assessment, database creation, and maintenance is unfortunately quite labor intensive, leading the DIA to embark on Foundational Intelligence Modernization Program in an effort to use big data to our advantage.

While this program will focus on crowd-sourced, big-data discovery, commercial database integration, and open-source location-based data services to populate the databases, the analytical issues that inevitably come with big data still need to be addressed. Further, the modernization program will not necessarily assist us in efficiently and effectively presenting this data to others within government.

After defense and intelligence community users select the relevant data and create analytic models putting the data in a more understandable format so that it can be disseminated to other decisionmakers is critical. That is why I support additional funding to create cloud-based all-source geoanalytics based on commercial off-the-shelf technology in support of DIA's new Foundational Intelligence Modernization Program.

We need to develop tools to analyze changes to critical foreign infrastructure through big data, while also providing an interactive Web-based executive briefing tool. These tools will not only help decision makers conceptualize the battle space environment and determine the correct course of action, but will assist our warfighters in making the fight—in taking the fight to the enemy.

I will now turn my attention to a military personnel issue that I don't believe receives enough attention. Hearing plays a vital role in the performance of our servicemen and women, and because of the nature of warfare, our soldiers, sailors, airmen, and Marines are constantly exposed to high levels of noise. I can tell you the number of servicemembers and veterans I have met that suffer from hearing loss and have been wearing hearing aids for years. Unfortunately, unlike civilians, military personnel have little option but to remain in noisy environments in order to complete specific tasks and missions.

And even though areas such as military flight lines are prime examples of places that routinely expose our service members to harmful noise, hearing loss is a largely preventable condition. That is why I ask the committee to direct additional funding to accelerate the current research and development efforts of the Naval Noise-Induced Hearing Loss program.

The Navy's efforts should not only assist those exposed to harmful noise on our aircraft carrier flight decks, but also across the Services on all flight lines. Doing so will save countless dollars of future medical costs for thousands of personnel and will protect the precious investment that we make in our brave warriors.

On a note also related to America's Navy, it is my belief that our aircraft carriers offer us an array of unique capabilities that allows us unparalleled force projection with the ability to marshal assets anytime, anywhere. Whether related to the fight against the Islamic State or humanitarian mission after a natural disaster, few can argue with the importance of such assets to our effort.

Similarly, I believe that we can—that few can argue the impact that research, development, test, and evaluation dollars spent now have on the future of our fleet. Our ability to refine and improve *Ford*-class carriers designed through the Design for Affordability project will help put downward pressure on the construction costs of future carriers in the *Ford*-class, like the USS *Enterprise*.

Because we continue to confront complex global threat environments while also facing the challenge of a fiscally tight budgetary outlook, I request that the committee provide an increase in funding for the Design for Affordability program so our that our RDT&E efforts can lead to future savings at the same time that we will be confronting a very expensive modernization wave throughout the Armed Forces.

Finally, issues related to cyber defense in the military as well as in the civilian sphere are directly connected to our most critical infrastructure and overall national security. Given the complex threat of—posed to Federal, State, and private entities within the United States from cyber attacks, investments must be made on whole-of-government approach. One of these investments should be through funding the activation of the Army National Guard Cyber Protection teams. Many part-time members of our National Guard have civilian cybersecurity skills and experience from their private jobs.

These are invaluable skills that should and must be used to counter this growing threat. These forces would not only offer outreach to States, but it would also bring a suite of robust capabilities to civilian authorities and other entities. We cannot rest until our cyber needs are met, and I ask that the committee take the necessary steps to engage these untapped resources.

As this committee continues its efforts to confront the multitude of challenges facing our Nation, I want to thank you for the opportunity to come and speak to you on a few issues that I believe are vitally important. Thank you so much.

Mr. FRELINGHUYSEN. Thank you very much. We appreciate your focusing on a number of issues which are of key interest to our committee and our committee members as well.

Mr. VISCLOSKY. I would just note, you get a gold star. I do not believe I have ever had a hearing where someone referenced the noise-induced hearing loss program. As someone who needs assistance myself, I appreciate you bringing that to the committee's attention very much.

Mr. AGUILAR. Thank you so much, sir. Appreciate it.

Mr. FRELINGHUYSEN. Thank you.

Mr. AGUILAR. Thank you, Mr. Chairman.

[The written statement of Congressman Aguilar follows:]

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COMMITTEE ON AGRICULTURE
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COMMITTEE ON
ARMED SERVICES
SUBCOMMITTEE ON EMERGING
THREATS AND CAPABILITIES
SUBCOMMITTEE ON STRATEGIC FORCES

March 15, 2016

The Honorable Rodney Frelinghuysen
Chairman
Subcommittee on Defense
House Appropriations Committee
The Capitol H-405
Washington, DC 20515

The Honorable Pete Visclosky
Ranking Member
Subcommittee on Defense
House Appropriations Committee
The Capitol H-405
Washington, DC 20515

Dear Chairman Frelinghuysen and Ranking Member Visclosky,

Please find below the contents of the testimony I delivered on March 15th, 2016 before the Defense subcommittee of the House Committee on Appropriations:

Chairman Frelinghuysen, Ranking Member Visclosky, and members of the Defense Subcommittee: Thank you for allowing me to testify before your Subcommittee today on few of the priorities I humbly believe should be highlighted in Fiscal Year 2017's Defense Appropriations bill. The use of big data by the DIA, an often forgotten health concern impacting our service men and women, possible savings connected to our nation's carriers, and our efforts to confront the ever-growing cyber threat, are all critical issues that I believe deserve more discussion as we debate the appropriate methods for defending our nation.

One of the Defense Intelligence Agency's (DIA) responsibilities includes creating and maintaining an infrastructure-focused Foundational Intelligence database to aid our situational awareness and mission planning activities. While it is critical for foreign infrastructure assessments, database creation and maintenance is unfortunately quite labor intensive, leading

the DIA to embark on the Foundational Intelligence Modernization (FIM) program in an effort to use big data to our advantage. While this program will focus on crowd-sourced big-data discovery, commercial database integration and open source location-based data services to populate the databases – the analytical issues that inevitably come with big data will still need to be addressed. Furthermore, the modernization program will not necessarily assist us in efficiently and effectively presenting this data to others within the government. After Defense and Intelligence Community users select the relevant data, and create analytic models, putting the data in a more understandable format so that it can be disseminated to other senior decision-makers is critical. That is why I support additional funding to create cloud-based, all-source GeoAnalytics based on commercial off-the-shelf technology in support of DIA's new Foundational Intelligence Modernization program. We need to develop tools to analyze changes to critical foreign infrastructure through big data, while also providing an interactive web-based executive briefing tool. These tools will not only help decision makers conceptualize the battlespace environment and determine the correct course of action, but will also assist our warfighters in taking the fight to the enemy.

I will now turn my attention to a military personnel issue that I don't believe receives enough attention. Hearing plays a vital role in the performance of our servicemen and women. Because of the nature of warfare, our soldiers, sailors, airmen, and Marines are constantly exposed to high levels of noise. I cannot tell you the number of service members and veterans I have met that suffer from hearing loss and have been wearing hearing aids for years. Unfortunately, unlike civilians, military personnel have little option but to remain in noisy environments in order to complete specific tasks and missions. And even though areas such as military flight lines are prime examples of places that routinely expose our service members to

harmful noise, hearing loss is a largely preventable condition. That is why I ask the committee to direct additional funding to accelerate the current research and development efforts of the Naval Noise-Induced Hearing Loss (NIHL) program. The Navy's efforts should not only assist those exposed to harmful noise on our aircraft carrier flight decks, but also across the services on all flight lines. Doing so will save countless dollars of future medical costs for thousands of personnel, and will protect the precious investments that we make in our brave warriors.

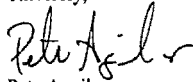
On a note also related to America's Navy, it is my belief that our aircraft carriers offer us an array of unique capabilities that allow us unparalleled force projection, with the ability to marshal assets anytime, anywhere. Whether related to our fight against the Islamic State or a humanitarian mission after a natural disaster, few can argue with the importance of such an asset in our efforts. Similarly, I believe that few can argue with the impact that Research, Development, Test, and Evaluation dollars spent now can have on the future of our fleet. Our ability to refine and improve the Ford-class carriers design through the "design for affordability" project will help put downward pressure on the construction costs of future carriers in the Ford-class, like the U.S.S. Enterprise (CVN-81). Because we continue to confront a complex global threat environment, while also facing the challenges of a fiscally tight budgetary outlook. I request that the committee provide an increase in funding for the "design for affordability" program so that our RDT&E efforts can lead to future savings at the same time that we will be confronting a very expensive modernization wave throughout our Armed Forces.

Finally, issues related to cyber defense, in the military as well as the civilian sphere, are directly connected to our most critical infrastructure and overall national security. Given the complexity of the threat posed to federal, state and private entities within the United States from cyber-attacks, investments must be made on a whole-of-government approach. One of these

investments should be through the funding and activation of the Army National Guard Cyber Protection teams. Many part-time members of the National Guard have civilian cyber security skill sets and experience from their private jobs. These are invaluable skills that should and must be used to counter this growing threat. These forces would not only offer outreach to states, but would also bring a suite of robust capabilities to civilian authorities and other entities. We cannot rest until our cyber needs are met, and I ask the committee to take the necessary steps to engage these untapped resources. As this committee continues its efforts to confront the multitude challenges facing the nation, I thank it for the opportunity to come and speak about a few of the issues that I believe are vitally important. Thank you.

If you require further information, do not hesitate to contact me or Wendell White, my Military Legislative Assistant, at 225-3201.

Sincerely,

A handwritten signature in black ink, appearing to read "Pete Aguilar", with a stylized flourish at the end.

Pete Aguilar
Member of Congress

Mr. FRELINGHUYSEN. Ms. McSally, gentlewoman from Arizona. Thank you for being with us.

Ms. MCSALLY. Absolutely.

Mr. FRELINGHUYSEN. And for your own service in the Air Force.

Ms. MCSALLY. Absolutely.

Mr. FRELINGHUYSEN. Remarkable. Thank you.

SUMMARY STATEMENT OF CONGRESSWOMAN MCSALLY

Ms. MCSALLY. Thank you. Mr. Chairman, Ranking Member, we will submit a written statement. I am just going to speak verbally on some of our priorities. I proudly represent Arizona's 2nd congressional district, which includes national security treasures of Davis-Monthan Air Force Base and Fort Huachuca. We also are home to Raytheon Missile Systems, a key partner for us and the warfighter.

As you know, I am a former A-10 pilot and a squadron commander myself. One of our highest priorities, and I want to thank the committee for our support in the past, is to keep the A-10 flying until we have a tested proven replacement.

I appreciate the support of this committee in the past. The administration has decided to not tilt at windmills again this year, to put any more A-10s in the boneyard, but I am still concerned about the future and the way ahead. We have got now nine A-10 squadrons remaining across the Active Duty Guard and Reserve, and they are smaller than the squadrons they had in the past. Some of them, like the one I commanded, has gone from 24 airplanes down to 18 airplanes.

They are currently in three locations: in the DMZ in South Korea providing key anti-armor capability; they are deployed and kicking butt in the fight against ISIS; and they are also deployed to Europe to train and reassure our allies in its Russian aggression.

So in three separate locations, the COCOM is asking for them, and only nine squadrons remaining. It is our view, my view, that we need to not put one more A-10 in the boneyard, and we need to continue to invest in it to make sure it can fly until we have a tested proven replacement.

So I humbly ask the committee to fully fund the operations and maintenance for all the A-10s that are still remaining, which are 283. Also, we are asking that you invest in the critical wing rebuilding that is important to allow the A-10 to continue to fly its missions into the future.

We finally have gotten the Pentagon to agree to have a side-by-side F-35 and A-10 fly-off and testing to address the close air support capabilities and address whether there will be a decreasing capability with the F-35. Now let me say for the record, we need a 5th-generation fighter, we need it fast, we need the F-35; I am a strong F-35 supporter. But when it comes to the unique capabilities that the A-10 brings to the fight and its loiter time, its lethality, its maneuverability, and its survivability, there is no other asset in our inventory that brings those unique capabilities to the fight that literally will keep Americans alive in unique circumstances. And until we are sure its replacement is going to not increase risk to our troops, we shouldn't be putting any A-10s in the boneyard.

They are going to have that fly-off. The earliest is going to be fiscal year 2018. We may be getting an independent report to Congress fiscal year 2019 or fiscal year 2020, and then we may discover, at the end of that, that the F-35 is not the best replacement for some of these unique capabilities. So we need to keep the A-10 flying, and we need to invest in these wing rebuilding investments so that it can continue to fly.

Additionally, there is the radio upgrades that are critical for the combat search-and-rescue mission. A lot of people focus on close air support, but they don't realize if we have a downed airman, the A-10 is the only capability that shows up to be the rescue mission commander. We locate, communicate with, protect, and run the entire search-and-rescue mission. This is a capability that ensures that our troops and our airmen, if they have to eject, that they don't have the same fate as the Jordanian pilot who was lit on fire in a cage. This is such a strategic importance, so keeping that A-10 and the LARS and the radio capability for that search and rescue is also important.

We have a three-pronged approach in the NDAA, and I just, you know, share that with you. One is, keep the current A-10 flying because it is what we need, and invest in its wings and its radio so they can keep fighting in the fight that it is expected to be in for the next several years, and we will—you know, we will be patient to see what the outcome is of the fly-off, but we want the decision to be conditional-based. We don't want any decisions on what is going to replace the A-10 until after this testing is over. So that is our second approach. So condition-based instead of time-based.

And then the third one is, we are asking the Pentagon to start the conversation about investing in an AX, potentially, in parallel. Don't wait until the outcome of the fly-off. Have an honest discussion about what the follow-on to the A-10 might be, a light attack aircraft, and that needs to include also looking at what we could do to the A-10 to make that be a cheaper, faster AX, to include the reengining of the A-10s.

So these are some of the discussions we are having with the Air Force. This is the approach we are going to have in the NDAA, and I humbly request the support of this committee moving forward for these three approaches in the A-10.

A couple of other issues I want to bring up in addition to the A-10 related to our missile capability. One is the Tomahawk missile. Look, I have run time-sensitive targeting in my time in the military. Oftentimes, things pop up around the world where we immediately need to get involved and hit targets, and the Tomahawk is one of our first weapons of choice to do that. We have seen it in the fight against ISIS, how critical it is. The inventory is getting low. The minimum sustainment rate is 196, and the President's budget is only for 100.

So, again, I humbly request a plus-up of 76 million to procure the 196 missiles to keep the missile—you know, to keep that line at a minimum sustainment rate.

Additionally, Standard Missile 3 is another important one. I ask for robust funding for our missile defense to include Standard Missile 3, because we see the threats with North Korea and Iran and other rogue actors, obviously, defending our Nation, our interests,

and our allies and our troops is very important, and so I appreciate the support on that.

Finally, on the missile issue is the JAGM and the Joint-Air-to-Ground missile, which is future Army capability, and we just request the President's budget fully funded for the JAGM.

In closing, about Fort Huachuca. We have got a national security treasure down in Fort Huachuca, asymmetrical assets, to include intelligence, unmanned aero vehicles, electronic jamming. We have noticed electronic warfare. All the Service chiefs, all the combatant commanders, the future commissioner of the Army, they have all identified EW as a critical gap in our capabilities. So I would ask for, you know, full robust funding for research and development in our current EW capabilities. The EC-130 is one that is absolutely critical. We have got to keep that flying until we have a replacement.

We have got a national treasure of an electronic testing range down at Fort Huachuca to test those capabilities, so just that critical gap in EW is important for our Nation and important for the warfighter. We have got the capability to test whatever you fund.

And then finally, unmanned aerial systems. I have worked with them in many different capacities, both in the Army and the Air Force. I think we need to continue to have a strong investment in research, development, and operational capability for unmanned aerial systems.

I appreciate the hard work of this committee. I know you have difficult decisions to make, and I am ready to take any questions.

Mr. FRELINGHUYSEN. Well, thank you very much for your strong advocacy, and obviously, your deep knowledge of a lot of what you have been talking about. And may I say, Pete Visclosky and I, the ranking member and I, work pretty closely with Chairman Thornberry to make sure there are no gaps here. We will do our level best address all of those issues.

Ms. MCSALLY. Fantastic.

Mr. FRELINGHUYSEN. And certainly on the A-10, there is nobody stronger in terms of letting us know of its capabilities, and its—the need our Nation has right now for its use.

Ms. MCSALLY. Exactly.

Mr. FRELINGHUYSEN. Mr. Visclosky.

Mr. VISCLOSKY. Thank you very much for your testimony.

Mr. FRELINGHUYSEN. Thank you very much.

Ms. MCSALLY. Appreciate it.

[The written statement of Congresswoman McSally follows:]

Statement of Rep. Martha McSally (AZ-02)
Before the House Committee on Appropriations
Subcommittee on Defense
March 15, 2016

Chairman Frelinghuysen, Ranking Member Visclosky, Members of the Committee: Thank you for inviting me here today.

I would like to open by asking for your continued support for the A-10 Warthog. I was an A-10 pilot and commanded the 354th Fighter Squadron at Davis-Monthan Air Force Base in Tucson, Arizona. I flew over 300 combat hours in the A-10, and I can tell you firsthand that when American troops are fighting close to the enemy, or if a pilot needs to be rescued behind enemy lines, there is no better sound overhead than the A-10.

Only the A-10 has the lethality, loiter time, and survivability to provide premier Close Air Support, Combat Search and Rescue Capabilities, and Forward Air Control-Airborne for the Air Force. We have already put the equivalent of 4 squadrons in the boneyard over the last few years, and we should not retire one more A-10 until we have a legitimate replacement. The Pentagon's Director of Operational Test and Evaluation is planning to include comparative testing of the A-10 head to head with the F-35A for these important mission sets in approximately Fiscal Year 2018. Therefore, it is prudent to not mothball any more A-10s until that testing is complete and an independent party certifies to Congress that the F-35A can replace the unique capabilities of the Warthog. Until the F-35A achieves Full Operating Capability and is tested and certified to replace all of the A-10s unique capabilities without increasing risk to our troops, we request full funding for the A-10 fleet. This support includes finishing the wing enhancements. We have purchased 173 Enhanced Wing Assemblies for the fleet of 283 aircraft, but only 106 have been installed. I ask your support to finish re-winging the fleet, which allow the A-10 to fly past 2028. That would also give the Air Force time to present Congress with a long-term plan, whether that's to re-engine the current fleet or to field a next-generation replacement.

I would also like to share my support for some Tomahawk, SM-3, and Joint-Air-to-Ground—or JAGM--missiles. We are using the Tomahawk right now against ISIS. The SM-3 is the most tested, and most successful, missile defense system we have. JAGM will be the next generation standoff weapon for the joint force, replacing the TOW, Hellfire, and Maverick. Our Tomahawk stockpiles are running low after a prolonged battle against ISIS, and we must plan ahead to make sure we have these missiles when we need them. Even though we don't have enough missiles, the President has tried to buy even fewer new missiles at a higher cost per missile. This poor planning is not the best way to manage our limited defense budget. The Tomahawk, SM-3, and JAGM are critical to our national security, whether attacking ISIS or providing state-of-the-art missile defense. I ask that you fully fund these important missile systems.

I'd like to address electronic warfare, or EW. Every combatant commander and service chief has told us that they need to continue to grow their EW capability and capacity. I ask for your support as the services work together in this area, which requires strategic change. Our near-peer competitors have also been investing in EW, and we must keep our advantage by investing in more electronic capabilities like improved airborne electronic attack, avionics, and radar. I ask your support for all necessary research-and-development, testing, and procurement of advanced electronic warfare capabilities.

Last, I want to address opportunities to grow the nation's capability and capacity with Remotely Piloted Aircraft, or RPAs. RPAs have value both at home and abroad. Domestic agencies use them to fight fires, patrol our borders, and catch human and drug traffickers. The nation uses RPAs abroad for ISR, or in the fight against violent extremists. I recently toured Libby Airfield at Fort Huachuca, in my district in Arizona. Fort Huachuca is the largest trainer of RPA pilots in the world, and boasts a strong working relationship with other federal partners, such as Customs and Border Protection. We must continue to develop RPA capability and capacity to meet the growing global need. I ask for

you to fully fund the RPA missions and allow us to leverage an asset like Fort Huachuca.

Thank you for this opportunity to provide testimony to the Subcommittee today. These issues are very important to myself and my district, and I appreciate your attention to these requests.

Mr. FRELINGHUYSEN. I am pleased to welcome Congressman Bradley Byrne from Alabama. Thank you for your patience.

SUMMARY STATEMENT OF CONGRESSMAN BYRNE

Mr. BYRNE. Thank you, Mr. Chairman. I appreciate being with you. Mr. Visclosky, this is my third year.

Mr. FRELINGHUYSEN. Thank you, as was Ms. McSally and others before us, thank you for being here again.

Mr. BYRNE. Well, I appreciate it. And I have been with you, this is my third time, to talk about two very important ships for the United States Navy, the Littoral Combat Ship, and what is now called the Expeditionary Fast Transport vessel, which used to be the Joint High Speed Vessel. I get confused when they change the name, so I want to remind you what they were.

This committee has been very supportive of these two programs in the past, and before I go any further, let me thank you for your past support. It is very important.

This program, if you will recall, from the very beginning, going back to the Clinton administration when this was first conceived, was put together as a 52-ship buy between two shipyards: one in Mobile, Alabama, where I am from; and the other one, Marinette, Wisconsin, Congressman Ribble's district. The Navy liked having two shipyards. The shipyards liked having the competition, believe it or not, and what we have gotten out of it are two excellent vessels at an incredibly good price with the price coming down.

Under the directive of Secretary Carter as codified in the release to the President's fiscal year 2017 budget, they are now taking actions to decrease the number of LCS, what will be a Frigate soon, from 52 down to 40, and require a down select to a single shipyard in fiscal year 2019.

Now, this is an unusual circumstance where that is the Secretary of Defense's position, but that is not the Secretary of the Navy's position. Secretary of the Navy publicly disagrees with the Secretary of Defense about this. The sudden and unexpected reduction from 52 to 40 ships proposed by the administration will increase the cost of the ships. The Congressional Budget Office says it will increase the cost of each ship by 20 percent.

We have questioned the Navy about this in HASC hearings, and they agree with that assessment. By taking this step, the Navy will actually be causing the cost of ships to increase at the precise moment they are moving into serial production, the point at which they will actually begin to see return on investment to be made—this committee has made, Congress has made years past.

This committee will remember that 2 years ago, the Office of the Secretary of Defense is separate—of the prior Secretary of Defense paused the program for 9 months to allow the Navy to conduct an in-depth analysis of the requirements to implement the Secretary of Defense directive to increase both the lethality and the survivability of LCS as it transitioned to the Frigate.

This analysis revalidated the need for 52 ships and maintained the dual supplier strategy with both Austal USA in Mobile and the Marinette Marine in Marinette, Wisconsin. This plan both met the Navy's requirement for 52 ships, reduced cost through competition, and ensured the stability of the industrial base in both shipyards.

I know this committee is well aware of the importance of the industrial base.

As you likely know, the Department of Defense and Navy have been publicly at odds about the future of these programs. The need for these ships was highlighted just last month in an Armed Services Committee hearing where Under Secretary Stackley, the head of U.S. Naval acquisitions stated the requirement for the vessels remains at 52. So the Navy continues to say they need 52.

He also stated that there was no Navy analysis indicating anything but a 52-ship requirement would meet the Navy's needs. Any reduction, this was his words, would create gaps in our small service combatants that are an important tool for operational commanders.

Now, this is an important component for the entire fleet, but it is critical to support the Pentagon's pivot to the Asia-Pacific region. The LCS has proven its utility in the region by routinely accessing places other larger ships simply can't get into. That is why these are called Littoral Combat Ships. Just last month, in testimony before the Armed Services Committee, Admiral Harris, the PACOM commander, called the LCS, quote, "a terrific platform to work with our allies and partners in that region," close quote.

The Secretary of the Navy, as I said earlier, has repeatedly outlined in his strong support for the program the need for 52 ships. The LCS has adhered to strict contractual and budgetary constraints, and is locked into fixed price contracts at a congressionally mandated cost cap. The LCS program has seen cost decreases over time, and ships today are being built at a total appropriation cost of \$475 million per hull, well under the cost gap.

By the way, both States and both shipyards invested in these shipyards to meet that cost gap based on a 52-ship buy. So if we go down, we basically violated what we told those two shipyards when we imposed that cost cap on them. I want to make that point.

We also need to be clear about the dangers poised by a down-select from two shipyards to one. This would, in all likelihood, put one of the shipyards out of business completely, and it would devastating for the industrial base that we, the committee, this committee, the Armed Services Committee has worked so hard to build up. It has also become abundantly clear that delaying production of the LCS would significantly reduce the size of our fleet and damage America's national security.

In turn, this will force the Navy to cover the same geographic area with significantly fewer assets, which they say they just simply can't do. Because of these considerations, I ask the subcommittee to support the funding necessary to procure three Littoral Combat Ships in this next year's budget. I will only briefly address the Joint High Speed Vessel.

This ship is a shallow draft, high-speed catamaran used for the intra-theater support of personnel, equipment, and supplies. I personally talked to combatant commanders, as well as the Marine Corps about this ship, and they have all stressed it is important. The vessel is a Swiss Army knife, if you will. It is able to support a wide range of missions for all the Services. It can be a troop transport. It can conduct humanitarian disaster missions, and it can even be used as a hospital ship.

Since delivery of the first vessel, these ships have supported a wide range of operations around the globe, including assisting recovery operations after the Indian earthquake and Tsunami in 2004, and the Japanese earthquake and Tsunami in 2011. As we are meeting here today, the USNS *Spearhead* is completing a third deployment in the 6th fleet area of responsibility to support operations in EUCOM and AFRICOM. Clearly, these vessels are effectively filling a critical gap.

The USNS *Spearhead* recently supported a successful anti-piracy operation. Other ETFs are currently deployed to PACOM and CENTCOM providing support and operational tasking for the respective fleet commanders.

Of note, these ships are being outfitted with different capability to support the different needs of each of these areas. Unfortunately, the President's budget fails to recognize this fact, and the ETF meets so many of our Navy's operational needs. The stated requirement for the number of these ships is 18, but to this point, six have been delivered and only another six are under contract, which we have got a gap of another six.

The acquisition of one of these ships in fiscal year 2017 will continue to meet service demands and keep the cost per vessel down. We are benefiting from the efficiencies gained through the construction of initial six ships. In order to ensure the capability to build these ships and maintain such an affordable price, we need to keep the production line open. Unfortunately, without further procurement in fiscal year 2017, this line will close.

In closing, I want to emphasize how important it is we support our Nation's Navy as a whole. I come here every year to talk to you about two ships, but I don't want you to think I just support two ships; it is the whole fleet that we need to be talking about. I know that you care about the whole fleet.

This is an incredibly challenging time with such a wide range of challenges everywhere around the world. It would be irresponsible, in my judgment, to halt investment in our Nation's Navy capabilities and resources at this point in time.

Mr. Chairman, I know you understand the vital importance of the Navy's fleet, as you do, Ranking Member, and the need to get our ship total numbers back up to the level required in order to protect our Nation and keep our sea lanes free and open, particularly in the face of what China is attempting to do in the South China Sea. In order to do that, we must have a strong, reliable, well-trained industrial base to construct and maintain the fleet. Whether it is the over 4,000 men and women that work at Austal shipyard in my district, or the thousands of people who work just across the State line in Mississippi at the Huntington Ingalls shipyard, we must maintain our workforce that we worked so hard to cultivate on our Gulf Coast.

Thank you so very much for your time today and for your support for these programs. I thank you for your continued support for our Navy. I would be happy to answer any questions.

Mr. FRELINGHUYSEN. Mr. Byrne, thank you for being here, once again, strongly supporting our Navy. We don't have enough ships, and certainly the ones we have need to—all these special capabilities, and thank you for emphasizing that point each and every

year. We work very closely, as you know, with the Armed Services Committee. We will try to get those numbers up and meet those requirements, considering what is happening around the world.

Mr. BYRNE. Thank you.

Mr. FRELINGHUYSEN. We really appreciate you being here—

Mr. BYRNE. Thank you.

Mr. FRELINGHUYSEN [continuing]. And your strong support.

Mr. Visclosky.

Mr. VISCLOSKY. I also appreciate the emphasis on the industrial base, and not only for the larger contractors, but the smaller, and one of the concerns we have on this committee is that predictability of that workflow, so I appreciate you mentioning that very much.

Mr. BYRNE. Yes, sir. I didn't mention this. I was the head of workforce development for the State of Alabama, and I know Mississippi did the same thing for their shipyards.

Mr. VISCLOSKY. Who did it better, Alabama or Mississippi?

Mr. BYRNE. I am not going to get into that. We both did a good job. We have—because we believe that it is important for our States, but also it is important for national security that we have those trained workers that create the best ships, the best weapons systems in the world. And while those ships are important, it is the people that make them and the people that serve on them that are really important, so I appreciate your saying that.

Mr. FRELINGHUYSEN. Thank you, and we support our industrial base. Thank you very much.

[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
15 MARCH 2016**

INTRODUCTION

Chairman Frelinghuysen, Ranking Member Visclosky, distinguished members of the committee; it is my pleasure to appear before you today to testify on two topics important to our national security: the Littoral Combat Ship (LCS) program and the Expeditionary Fast Transport (EPF) program, formerly known as the Joint High Speed Vessel.

I appreciate the Committee's past support of these two critical programs. Unfortunately, this lame- duck administration is yet again attempting to disrupt these programs while ignoring the stated needs and goals of our Navy.

LITTORAL COMBAT SHIP

Under the directive of Secretary Carter and codified in the release of the President's Fiscal Year 2017 budget, the Navy is taking actions to decrease the number of LCS, or Frigates, from 52 total ships down to 40 and require a down select to a single shipyard in Fiscal Year 2019.

The sudden and unexpected reduction from 52 to 40 ships proposed by the Administration will undoubtedly increase the cost of these ships.

The President's proposed budget increases the cost of each ship by roughly 20%, according to the Congressional Budget Office. By taking this drastic step, the Navy will actually be causing the cost of these ships to increase at the precise moment they are moving into serial production – the point at which the Navy will actually begin seeing a return on the investment made to date.

Two years ago, the Office of the Secretary of Defense paused the LCS program for about 9 months to allow the Navy to conduct an in depth analysis of the requirements to implement the Secretary of Defense's directive to increase the lethality and survivability of the LCS as it transitioned to the Frigate. This analysis validated the need for 52 LCS/Frigates and maintained the dual supplier strategy with Austal USA in Mobile, Alabama and Marinette Marine in Marinette, Wisconsin.

This plan met the Navy's requirements for 52 ships, reduced cost through competition between two yards, and ensured stability in the industrial base.

As you likely know, the Department of Defense and the Navy have publicly been at odds about the future of these programs. The need for these ships was highlighted last month at an Armed Service Committee hearing when Secretary Stackley, the head of U.S. Naval acquisitions, stated the requirement for these vessels remains 52. Secretary Stackley also stated there was no Navy analysis indicating anything but a 52 ship requirement. Any reduction would create gaps in our small surface combatants that are an important tool for our operational commanders.

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. The LCS has proven its utility in the region by routinely accessing places other, larger surface ships cannot get to in that very important part of the

world. Just last month, in testimony before the Armed Services Committee, Admiral Harris, the PACOM Commander, called the LCS a “terrific platform to work with our allies and partners in the region.” The Secretary of the Navy has also repeatedly outlined his strong support for the LCS program and the need for 52 ships.

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 program, has seen costs decreases over time and ships today are being built at a total appropriations cost of \$475 million per hull, well under the Cost Cap.

We also need to be clear about the dangers posed by a down select from two shipyards to one. This would in all likelihood put one of the shipyards out of business and be devastating for the industrial base we have worked so hard to build up.

It has also 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.

Because of these considerations, I ask the Subcommittee to support the funding 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 Expeditionary Fast Transport (EPF) formally the Joint High Speed Vessel, or JHSV. This ship is a shallow draft, high-speed catamaran used for the intra-theater support of personnel, equipment and supplies.

I've talked to Combatant Commanders, as well as the Marine Corps about the EPF, and each has stressed its importance. This vessel truly is a Swiss Army Knife – able to support a wide range of missions for all the services. It can be a troop transport, conduct humanitarian disaster missions, and it could even be used as a hospital ship.

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 Tsunami in 2004 and the Japanese earthquake and Tsunami in 2011. As we meet, USNS Spearhead is completing her third deployment in the 6th Fleet Area of Responsibility to support operations in EUCOM and AFRICOM.

Clearly, these vessels are effectively filling a critical gap. The USNS Spearhead recently supported a successful anti-piracy operation. Other EPFs are currently deployed to PACOM and CENTCOM providing support and operational tasking for the respective Fleet Commanders.

Of note, the EPFs are being outfitted with different capabilities to support the different needs of each area.

Unfortunately, the President's budget fails to recognize the fact that the EPF meets so many of our Navy's operational needs. The stated requirement for the number of these ships is 18 but to this point 6 have been delivered and another 6 are under contract. The acquisition of one EPF in Fiscal Year '17 will continue to meet service demands and keep the cost per vessel down.

We are benefiting from the efficiencies gained through the construction of the initial six EPF. In order to ensure the capability to build these ships, and maintain such an affordable price, we need to keep the production line open. Unfortunately, without further procurement in Fiscal Year 2017, this line will close.

CLOSING

In closing, I want to emphasize how important it is that we support our nation's Navy as a whole. This is an incredibly challenging time with such a wide range of challenges around the globe. It would be irresponsible to halt investment in our nation's naval capabilities and resources.

Mr. Chairman, I know you understand the vital importance of the Navy's fleet and the need to get our total ship numbers back up to the level required in order to protect the nation and keep the sea lanes free and open.

In order to do that, we must have the strong, reliable, well-trained industrial base to construct and maintain the fleet. Whether it is the over 4,000 men and women who work at the Austal shipyard in Mobile or the thousands of people who work just across the state line in Mississippi at the Huntington Ingalls shipyard, we must maintain our workforce that we have worked so hard to cultivate on the Gulf Coast.

Thank you very much for your time today and thank you for your continued support of our nation's Navy.

Mr. FRELINGHUYSEN. Congressman Glenn Thompson from Pennsylvania, welcome. Thanks for your patience. May I just say for the record, testimony, if it is abbreviated—your full testimony will be put in the record, but if it is abbreviated, we even appreciate it more.

SUMMARY STATEMENT OF CONGRESSMAN THOMPSON

Mr. THOMPSON. Absolutely. Well, Chairman, thank you. Ranking Member, thank you. Thank you for your continued dedication to the House Appropriation Subcommittee on Defense. I certainly recognize the challenges placed before the subcommittee, but I appreciate your ongoing commitment to our soldiers, sailors, airmen, Marines, Coast Guardsmen, and Reserve forces. As the father of a Purple Heart Army staff sergeant and local supporter of our Nation's defense programs, I am grateful and honored for the opportunity to share some fiscal year 2017 priorities.

Despite the military drawdown, our Nation continues to recruit volunteers to join the ranks and regenerate our Armed Forces. While our military entrance processing stations do a great job examining the physical health of incoming recruits, experts have acknowledged an information gap when it comes to mental health or behavioral health.

To address this issue, I have advocated for improving military suicide prevention and by proposing a mental health assessment for all incoming recruits to be used as a baseline for evaluation throughout their careers. In this legislative proposal known as the Medical Evaluation Party Service members, or MEPS Act, did receive bipartisan support and was included in the fiscal year 2016 National Defense Authorization Act. And while the MEPS Act has no negative budgetary impact, CBO has indicated it would require a small increase in appropriations to implement and fulfill. And accordingly, I urge the subcommittee to fund the consolidated health support programs within the Department of Defense at the administration's—at adequate levels.

Not only is this vastly important to us to properly screen our veterans prior to their service, it is also our shared duty to make life-saving resources accessible to them when they return home, and for this reason, I support the development of new technologies that connect healthcare providers to information, patients, and other providers to provide better care, especially in rural and underserved areas.

In light of the recent technological advances involving telemedicine programs and the authority given to the Department of Defense by Congress, I request a strong financial support for both the Medical Information Technology Development Program, and the Medical Technology Development Program within DOD's Defense health programs.

It is undeniable that the DOD has demonstrated their willingness to work hard to improve the lives of military members and civilians alike. Medical research conducted within the DOD has led to lifesaving breakthroughs and development of effective treatments in a myriad of conditions.

This next request really has to do with fulfilling the, I think, one of the most important promises we make to the men and women

that serve this country. And while we work to assist our servicemen and women who are here with us, we have to keep in mind that more than 80,000 American citizens who served in Vietnam War, Korean War, and World War II, who are still missing in action. For those who made the ultimate sacrifice, their families and loved ones deserve no less than our greatest recovery efforts, really fulfilling that promise that we leave no soldier behind. Diligent work, planning, and sufficient funding is necessary in order to continue to provide grieving families with the opportunity for closure, and I respectfully request that the subcommittee support robust funding for the Defense POW/MIA office.

In tandem with providing adequate support services for all of our servicemen and women, we must also recognize the value of encouraging innovation of U.S. Defense industrial base. The manufacturing technology, or ManTech Program, is intended to improve productivity and responsiveness of the U.S. Defense industrial base by funding the development, optimization, and transition of providing manufacturing technologies to key naval suppliers.

Specifically, in Pennsylvania's 5th Congressional District, Penn State's Applied Research Laboratory manages two ManTech Centers of Excellence, the Institute for Manufacturing and Sustainment Technologies, and the Electro-Optics Center. The works accomplished by these partnerships includes basic and applied research and technology demonstrations, and the facilitation of technology commercialization. I would appreciate the committee looking favorably upon these programs.

And then, finally, an issue that has been of great concern to me and other members of the Pennsylvania's delegation, the expansion of Russia's geopolitical aspirations through their positioning as a regional energy giant. The current case in point is in the development of the Army's new medical center at the Rhine Ordnance Barracks installation area. This hospital, budgeted at nearly \$1 billion, is to be the replacement for the aging medical complex in nearby Landstuhl, Germany.

Now in the advanced state of planning, no final decision has been made on the energy source for furnished heat for the medical facility, which will serve U.S. uniformed and civilian personnel based on three different continents. I thank the chairman and ranking member for their understanding that domestic energy sources for U.S. energy, for U.S. military installations will ensure that U.S. interests are secured abroad.

I have language that will be submitted along with support from the Pennsylvania delegation, and other like-minded members, who know that we cannot simply leave Russia to be the supplier of energy to U.S. military installations. Failure to address these concerns could leave our servicemen and women serving overseas in a new and a very literal cold war.

I look forward to working with the committee as the appropriations process moves forward. And once again, thank you for your leadership and your dedication to the men and women who are serving this great Nation.

Mr. FRELINGHUYSEN. Thank you, Mr. Thompson, for being here, and also for your son's service and recognition, having received the Purple Heart, and your focus on Missing in Action, that recovery

program, and certainly we need to get moving on building a new hospital to replace Landstuhl, and a lot of the other issues that relate to R&D that are medical-related, we thank you for your strong support of national security. Mr. Visclosky.

Mr. VISCLOSKY. I would just make the observation, I appreciate you mentioning the suicide program. The committees worked on a number of these, including with the Department of the Navy, which several years ago had more than 100 programs, and the committee suggested then you don't have a program.

Mr. THOMPSON. Right.

Mr. VISCLOSKY. And the Navy is doing a much better job today, so we really appreciate you bringing that up.

Mr. THOMPSON. Thank you very much.

[The written statement of Congressman Thompson follows:]

**Testimony of the Honorable Glenn ‘GT’ Thompson (PA-5) Before the
House Appropriations Subcommittee on Defense**

March 15, 2016

Chairman Frelinghuysen and Ranking Member Visclosky,

Good morning and thank you for your continued dedication to the House Appropriations Subcommittee on Defense. I recognize the challenges placed before the Subcommittee and appreciate your ongoing commitment to our soldiers, sailors, airmen, marines, coast guardsmen and reserve forces. As the father of an Army staff sergeant and vocal supporter of our nation’s defense programs, I am grateful for the opportunity to share my FY17 priorities.

Despite the military drawdown, our nation continues to recruit volunteers to join the ranks and regenerate our Armed Forces. While our Military Entrance Process Stations do a great job examining the physical health of incoming recruits, experts have acknowledged an information gap when it comes to behavioral health.

To address this issue, I have advocated for improving military suicide prevention, by proposing a mental health assessment for all incoming recruits to be used as a baseline for evaluations throughout their careers. This legislative proposal, known as the Medical Evaluation Parity Service members or MEPS Act, received bipartisan support and was included in the Fiscal Year 2016 National Defense Authorization Act.

While the MEPS Act has no negative budgetary impact, CBO has indicated it would require a small increase in appropriations to implement and fulfill. Accordingly, I urge the Subcommittee to fund Consolidated Health Support Programs within the Department of Defense at the Administration’s at adequate levels.

Not only is it vastly important for us to properly screen our veterans prior to their service, it is also our shared duty to make lifesaving resources accessible to them when they return home. For this reason, I support the development of new technologies that connect healthcare providers to information, patients, and other providers to provide better care – especially in rural and underserved areas.

In light of recent technological advances, evolving telemedicine programs and the authority given to the Department of Defense by Congress, I request strong financial support for both the Medical Information Technology Development Program and Medical Technology Development Program within DOD Defense Health Programs.

It is undeniable the DoD has demonstrated their willingness to work hard to improve the lives of military members and civilians alike. Medical research conducted within DoD has led to lifesaving breakthroughs and the development of effective treatments for a myriad of conditions.

While we work to assist our service men and women who are here with us, we must keep in mind that more than 80,000 American citizens who served in the Vietnam War, Korean War, and World War II are still missing in action. For those who made the ultimate sacrifice, their families and loved ones deserve no less than our greatest recovery efforts. Diligent work, planning and sufficient funding is necessary. In order to continue to provide grieving families the opportunity for closure, I respectfully request that the Subcommittee supports robust funding for the Defense POW/MIA Office.

In tandem with providing adequate support services to all of our servicemen and women, we must also recognize the value of encouraging innovation in the U.S. defense industrial base.

The Manufacturing Technology, or ManTech Program, is intended to improve the productivity and responsiveness of the U.S. defense industrial base by funding the development, optimization, and transition of providing manufacturing technologies to key naval suppliers.

Specifically, in Pennsylvania's 5th Congressional District, Penn State's Applied Research Laboratory manages two ManTech Centers of Excellence, the Institute for Manufacturing and Sustainment Technologies, and the Electro-Optics Center. The work accomplished by these partnerships includes basic and applied research and technology demonstrations and the facilitation of technology commercialization. I would appreciate the committee looking favorably upon these programs.

Finally, an issue that has been of great concern to me and other members of the Pennsylvania Delegation - the expansion of Russia's geopolitical aspirations through their positioning as a regional energy giant.

A current case in point is in the development of the Army's new medical center at the Rhine Ordnance Barracks installation area. This hospital, budgeted at nearly \$1-billion, is to be the replacement for the aging medical complex in nearby Landstuhl. Now in the advanced state of planning, no final decision has been made on the energy source for furnished heat for the medical facility, which will serve U.S. uniformed and civilian personnel based on three different continents.

I thank the Chairman and Ranking Member for their understanding that domestic sources of U.S. energy will ensure that U.S. interests are secured abroad.

I have language that will be submitted along with support from the Pennsylvania delegation and other like-minded members, who know that we cannot simply leave Russia to be the supplier of energy to U.S. military installations. Failure to address these concerns could leave our service men and women serving overseas in a new and very literal, "Cold War."

I look forward to working with the committee as the appropriations process moves forward and thank you for the subcommittee's continued commitment to our military and defense of this great nation.

Mr. FRELINGHUYSEN. Congressman Ted Lieu. I apologize to other Members. I guess the chairman has the right to call the order, so I apologize to Mr. Cook and others. We got off to a long a very late start, so if anything you can do to speed this along would be appreciated, and I apologize for bumping others. Go ahead, please.

SUMMARY STATEMENT OF CONGRESSMAN LIEU

Mr. LIEU. Thank you, Chairman Frelinghuysen and Ranking Member Visclosky. I want to thank you for having this hearing, and I am going to talk about the Navy's tactical aviation shortfall. You are familiar with this issue, but let me just highlight some key facts.

Last year, the Chief of Naval Operations testified to Congress that he faced a Super Hornet shortfall of 24 to 36 aircraft. Congress and this committee responded by adding five Super Hornets to last year's budget. However, due to increased utilization rates as well as delays in processing through Legacy aircraft to meet these deep holes, the shortfall still remains at about 36 aircraft; and then this number grows exponentially as these fighter jets start to age.

Right now, we have an operational issue with the shortfall, and then we have a production line issue. Secretary of the Navy, Ray Mabus, testified that he added those aircraft as his top priority, in part, for maintaining the F-18 production line as an international sale—for international sales and domestic sales.

In my own district, we have the production line to manufacturer, their fuselage for every single F-18 aircraft in the Navy, and I have seen the 7,000 men and women, how that helps support this, the tremendous economic impact that it has, and if we don't keep this production line open, not only does it affect the economy, it also affects the ability to keep this aircraft from being produced.

As the subcommittee weighs these many factors, I hope you consider both the tactical and operational shortfall and the production line problems, and the Navy really needs 36 Super Hornets, but they can make do with 14. That is their unfunded requirement, and again, I want to thank you for letting Members speak, and having served in Active Duty and then in Reserves, I have seen your committee and how you all have helped our warfighters, and I appreciate that.

Mr. FRELINGHUYSEN. I thank you for being here again, and for your ongoing service in the Air Force.

Mr. LIEU. Thank you.

Mr. FRELINGHUYSEN. Obviously, as a Member of Congress, being such a strong supporter of national defense.

Mr. LIEU. Thank you.

Mr. FRELINGHUYSEN. Mr. Visclosky.

Mr. VISCLOSKY. Thank you very much.

Mr. LIEU. Thank you.

[The written statement of Congressman Lieu follows:]

Representative Ted Lieu (D-CA)**Testimony to the House Defense Appropriations Subcommittee (HACD)****March 15, 2016**

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 Reserve who previously served on active duty, I have firsthand experience with the support this Subcommittee provides to our men and women in uniform. I would like to commend you for holding this hearing today and providing Members with the opportunity to share their thoughts on national security priorities.

This is the second time that I have testified in front of this Subcommittee on the Navy's tactical aviation shortfall. While I know that you have an intimate familiarity with the issue, allow me to highlight several key facts that will affect our warfighter. Last year, the Chief of Naval Operations (CNO) testified to Congress that he faced a "Super Hornet shortfall" of 24 to 36 aircraft. Congress, and this Subcommittee in particular, responded by adding 5 Super Hornets in last year's budget. However, due to higher than expected Super Hornet utilization rates, and delays in processing legacy aircraft through depots, the shortfall remains at roughly 36 aircraft. That number grows exponentially in out years as our Super Hornets age. The warfighting effect is that there aren't sufficient aircraft to train properly for squadrons that prepare for deployment, and a surge capability with multiple carriers in a region is in doubt. Something must be done.

In addition to testifying to the challenge, the Navy has taken steps this year to try to mitigate the shortfall. In the Fiscal Year 2017 budget, it added two aircraft in the Overseas

Contingency Operations (OCO) account, and planned for 14 Super Hornets in next year's budget. Further, the Navy submitted an "unfunded requirement" of 14 Super Hornets for this year. Secretary of the Navy Ray Mabus testified that he added those aircraft as his "top priority" over concern for the shortfall and maintaining the F/A-18 production line as an international sale was delayed longer than expected.

While the unfunded request addresses a warfighting demand, keeping the F/A-18 line strong is also important to my district. California's 33rd District manufactures the fuselage, the radar and other critical components of every F/A-18 aircraft for the Navy. An estimated 7,000 men and women support the Navy warfighter through direct and indirect jobs, covering seven major supplier companies and \$400 million in economic impact annually. I have been to these facilities and see the passion that they have when they talk about how much their work means to our Nation and the pilots who fly the aircraft. The Navy's unfunded requirement can benefit the warfighter and those on the home front that work every day to support them.

The Subcommittee must weigh many factors as it crafts its budget, but if F/A-18 aircraft are not added this year, the production line would be placed under enormous pressure to continue production, and the Navy may not have the ability to address its shortfall in future years. I hope that as you craft the Fiscal Year 2017 budget for the Department of Defense, you consider the Navy's top unfunded priority of Super Hornets one that your Subcommittee can support as well. The strike fighter shortfall is a serious issue, and I look forward to working with you throughout the year on addressing it for the Navy.

Thank you.

Mr. FRELINGHUYSEN. Mr. Bridenstine—

Mr. BRIDENSTINE. Thank you.

Mr. FRELINGHUYSEN [continuing]. Apologies for the order, and let me thank you for your Navy service.

Mr. BRIDENSTINE. Oh, thank you, Chairman.

Mr. FRELINGHUYSEN. We are very proud of all of our Members, and, of course, those who have worn uniform.

SUMMARY STATEMENT OF CONGRESSMAN BRIDENSTINE

Mr. BRIDENSTINE. Thank you. Chairman Frelinghuysen and Ranking Member Visclosky, thank you for having me testify before your subcommittee. I want to address four issues that are focused on space-related matters. I am going to go through them one at a time, but I think the overwhelming issue that we need to deal with are the threats that our country faces in space, not only from the Chinese and the Russians, and sophisticated threats not only direct ascent and co-orbital threats, but from the terrestrial sphere, we have got dogging and jamming and a whole host of other threats that we are facing in space.

So the first thing I would like you to consider is appropriating \$10 million in Air Force RDT&E to establish a Commercial Weather Data Pilot Program. The purpose of a Commercial Weather Data Pilot Program would be to distribute the architecture that we have in space for weather, and we can actually take advantage of a very robust commercial market. Right now, we have got companies that are launching satellites doing technologies like GPS radio occultation, hydrospectral sensing, capabilities that can feed our numerical weather models and provide us the intelligence and information we need for weather. And we can do this by buying data, changing the business model, in essence, and initiating a pilot program where we can buy data from commercial enterprise.

The reason this is important, number one, it distributes the architecture, complicates the targeting solution for our enemies, but also, we are able to lower the cost for the taxpayer. And how do we do that? Well, when we buy data, those constellations are being launched really to serve markets. The insurance company, reinsurance—the insurance industry, reinsurance industry, markets like transportation, energy, agriculture, and this—if we buy—if we are but one customer of many, it lowers the cost to the taxpayer. So, I think a Commercial Weather Data Pilot Program should be considered, \$10 million in Air Force RDT&E money.

The second thing is, I think it is important that we have a Small Venture Class Launch Service Program, another pilot program that will enable venture class rockets to take our—not our, but commercial satellites into space. Again, we have got commercial operators, not just for weather, but also remote sensing and imagery. The National Geospatial Intelligence Agency just put out their commercial space policy, and these satellites that commercial operators are launching are much smaller, distributed, disaggregated, and if we have a venture class program that could launch these satellites, could be critically valuable for the commercial industry that is providing many of our national security assets. And so what I am requesting there is \$27.6 million in Air Force RDT&E for a Venture Class Launch Service Program.

Again, when the Chinese have already demonstrated a willingness to shoot down satellites, they shot down one of their own in 2007 and created an orbital debris field that is thousands of pieces, having the ability to rapidly reconstitute small and disaggregated architectures in space is important. That is what the Venture Class Launch Service Program would be for.

Third, I think the subcommittee should support the Air Force Satellite Communications' Pathfinder Program. It is a \$26 million program. Congresswoman Betty McCollum, on this subcommittee, has made her efforts very clear, and I support her effort, and that is this. When we think about our space-based communication architecture, we need to take advantage of all the great things that are happening in the commercial sphere, and in this particular case, 80 percent of the Department of Defense unprotected communications that are utilized by warfighters, 80 percent is commercial, and we are buying—we are leasing that capacity on the spot market at the highest, most efficient ways—and the highest most—the highest cost, most inefficient way possible.

Instead, this is an innovative Pathfinder. What it does is it says we are going to buy hardware. We are going to buy one transponder on a communication satellite, and then we are going to trade that transponder for global access to a constellation of communication satellites in space, and that global access means that our capacity will be portable. We will be able to get the right information to the warfighter in the right place at the right time, and the warfighter will be able to share information back.

So I think the SATCOM Pathfinder Program, \$26 million is what the President's budget request had in it, I think that is an important provision.

Finally, I think we should consider supporting, to the tune of \$20 million, the Air Force request for Enterprise Ground Services. This is an idea that brings architectures together for the ground segment so that we will have more resilient and integrated ground architectures. We are talking about space-based infrared for our missile warning systems, GPS satellites, also our weather satellites, and on top of it, AEHF for protective communications for our national strategic initiatives. So I think the Enterprise Ground System is an important thing that we should consider funding at \$20 million.

So, in conclusion, I think that this committee can help us adapt to fundamentally new space considerations, things that are happening in a contested and congested environment in space, that we need to take advantage of all the great capabilities that our commercial operators are providing, and of course, do it in the best interest of our warfighter.

Mr. FRELINGHUYSEN. Thank you very much for your testimony. I would like to thank the gentleman from Oklahoma for really covering a lot of space-based investments and how important they are to our national security, given what is happening around the world. Thank you very much for your time here. Mr. Visclosky.

Mr. VISCLOSKY. I just appreciate that you have discrete monetary request—

Mr. BRIDENSTINE. Sure.

Mr. VISCLOSKY [continuing]. So we have a marked roll call. Thank you very much.

Mr. BRIDENSTINE. Absolutely. Thank you again.

[The written statement of Congressman Bridenstine follows:]

CONGRESSMAN JIM BRIDENSTINE

STATEMENT FOR THE RECORD

FY 2017 DEFENSE APPROPRIATIONS - MEMBERS DAY

HOUSE APPROPRIATIONS SUBCOMMITTEE ON DEFENSE

TUESDAY, MARCH 15, 2016

Introduction

Chairman Frelinghuysen, Ranking Member Visclosky and distinguished members of the subcommittee. Thank you for the opportunity to testify on four space initiatives for fiscal year 2017 national security appropriations. I am member of both the Armed Services Subcommittee on Strategic Forces and Science Subcommittee on Space. Thus, my oversight work involves national security, civil, and commercial space programs and issues. As a Navy pilot, and combat veteran of Iraq and Afghanistan, I have also experienced firsthand the essential role that space systems play across the range of military operations and spectrum of conflict. Let me set the context for my four proposals.

The space domain is radically changing. During the Cold War, space was a sanctuary with two big players – the United States and the Soviet Union – each possessing a small number of assets primarily used for overhead monitoring and nuclear missions. Now, space is increasingly congested, contested, and competitive. We live in a world of college students launching cubesats. A world of global satellite communications. A world of GPS on our smart phones. Unfortunately, this new world is increasingly characterized by active hostile operations against the United States, our allies, and increasingly our commercial companies in space.

In this new environment, the Department of Defense (DOD) must access, acquire, operate, and sustain space capabilities in fundamentally new ways. With limited exceptions, we must change the standard DOD paradigm of procuring, owning, and operating billion-dollar Battlestar Galactica behemoth systems delivered behind schedule and way over cost. Our current space architectures are

stovepiped, vulnerable, and expensive. Our next-generation space architectures must be integrated, resilient, and affordable. My four requests help move DOD toward these objectives through starting new or supporting existing innovative programs.

Commercial Weather Data Pilot Program

First, this Subcommittee should consider appropriating a modest amount in Air Force RDT&E to establish a Commercial Weather Data Pilot program. In comparison to the \$10.0 million necessary for this pilot program, the Air Force's FY17 budget requests \$119.0 million to begin a Weather System Follow-On (WSF) program largely to replace the legacy DOD weather system. WSF will not launch until 2022, despite plans to spend half a billion dollars developing it over the next five years. WSF is also not planned to meet the Department's top two validated weather requirements. Instead, DOD plans to rely on civil and international partners to address its most significant requirements.

In the near-term, the pilot program could test, validate, and ultimately purchase commercial weather data and services to augment and complement existing data sources, thus enhancing the quality of models and forecasts. Over time commercial weather solutions could take a larger, if not primary, role in addressing some defense weather requirements. This is what happened when DOD and the Intelligence Community started to leverage commercial imagery – buying data and services, rather buying, owning, and operating custom systems.

The Subcommittee should follow the precedent set by the FY16 Appropriations Act, which included \$3.0 million to jumpstart a Commercial Weather Data Pilot program at the National Oceanic and Atmospheric Administration (NOAA). My proposal would apply the NOAA program to DOD for a modest startup cost. Multiple companies are already building and launching constellations of small weather satellites with private funding to serve customers in industries ranging from agriculture, to energy, to insurance. DOD would benefit from access to data and services available for the commercial marketplace.

Small Venture Class Launch Services

Second, this Subcommittee should consider appropriating \$27.6 million in Air Force RDT&E to fund a competitively awarded Venture Class Launch Service program. This request takes another successful non-DOD initiative – supported by the Appropriations Committee – and replicates it inside the Department of Defense. NASA’s Venture Class Launch Service (VCLS) program has awarded three contracts to launch small satellites in support of earth science missions. Venture Class launches provide a rapid and relatively inexpensive way to get small satellites into Low Earth Orbit; dedicated small launch services offer an alternative to the “rideshare” model whereby small satellite operators must “hitch a ride” as secondary payloads on larger rockets when space is available.

A robust small launch vehicle industrial base will enhance the resilience of future space architectures. The ability of space systems to take a punch, recover or reconstitute, and carry on delivering mission-critical capability has a huge deterrent effect on any adversary considering extending conflict into space.

Electronics miniaturization fits the same capability into smaller packages. Think about the brick-sized first-generation cell phones versus today’s smartphones. The same principle applies to space systems. Smaller, more powerful electronics reduce size, power, and weight power requirements. Smaller, lighter satellites, in turn, can be launched on smaller launch vehicles which have shorter production timelines and lower costs. Cheaper and faster launch allows DOD to place a larger number of assets into space, augmenting the current architectures and making the overall system more survivable. An army of small launch vehicles can rapidly launch new assets or reconstitute destroyed or degraded space assets ensuring the adversary reaps minimal gains from attacking our space capabilities.

Space and Missile Systems Center SATCOM Pathfinder Program

Third, this Subcommittee should support the President’s Budget Request for the Air Force Space and Missile Systems Center (SMC) Satellite Communications (SATCOM) Pathfinder program. SMC is the Air Force’s space procurement entity. The PB requests \$30.0 million to fund Pathfinder 3, the third in a series of five initiatives. The FY 16 Appropriations bill increased Pathfinder by \$26.0 million to keep the program on track. I must applaud Congresswoman

Betty McCollum, a member of this Subcommittee, for her steadfast support for Pathfinders.

DOD relies heavily on commercial SATCOM (COMSATCOM) providers to meet about 80% of its requirements. The demand for SATCOM is seemingly insatiable; high-level commanders to privates on patrol want better connectivity and more intelligence, surveillance, and reconnaissance data. However, DOD buys COMSATCOM capacity in the most inefficient way possible: annual spot-market contracts funded mostly through OCO. SMC Pathfinders demonstrate innovative ways to purchase COMSATCOM. Rather than purchase capacity, Pathfinders buy “hardware”. Pathfinder 1 bought an entire on-orbit satellite at a bargain price to provide desperately needed capacity over Africa. Subsequent Pathfinders will buy transponders on commercial satellites prior to launch; DOD will then “trade” these transponders for access to a commercial operator’s entire global constellation of capacity. In effect, DOD makes a small upfront investment, but gets global access to an existing constellation.

Enterprise Ground Services

Finally, this Subcommittee should support the \$20.0 million Air Force request for Enterprise Ground Services (EGS). Future space architectures must be resilient **and** integrated. While satellites get the headlines, ground segments are the workhorses which process and transmit data and command and control the satellite. Today’s ground systems are custom-built and stovepiped which prohibits automated and efficient data sharing. A common operating picture is impossible if ground systems are walled off from each other.

EGS will develop common standards and interfaces for ground systems for protected communications, GPS, missile warning and weather. After developing the common baseline, EGS will insert hardware packages – essentially a common operating system - which will provide that common operating picture. Commonality and automation will reduce the sustainment costs and free up space warriors to focus on the warfighting mission.

Conclusion

The space environment has shifted decisively from Cold War sanctuary to an increasingly congested, contested, and competitive theater of ongoing military operations. The Subcommittee can help DOD adapt to this fundamentally new domain through supporting the four innovative initiatives which I have discussed. Future space architectures must be integrated, resilient, and affordable. Establishing a commercial weather pilot program would improve the quality of forecasting and prediction provided to the warfighter. Fostering the small launch vehicle industrial base would enhance options for rapid launch and reconstitution. Supporting the SMC SATCOM Pathfinders would provide more access to global capacity at lower costs. Finally, supporting Enterprise Ground Services would enhance integration among ground systems for our most vital space assets.

I thank the Subcommittee for the opportunity to testify this morning and look forward to continued engagement.

Mr. FRELINGHUYSEN. Paul Cook, the gentleman from California. I want to apologize. You never keep Marines waiting, but I guess we kept you waiting long enough that you can blast away here. Thank you for your own service for decades in the Marines.

SUMMARY STATEMENT OF CONGRESSMAN COOK

Mr. COOK. Thank you very much, Mr. Chairman, Ranking Member Visclosky. I was getting the feeling that you had a bias for the Air Force over the Marines, but ironically enough, I am presenting testimony on behalf of the Air Force.

We have come a long way since my days in the Marine Corps. What I used to do with grease pencils, sheets of plastic, and a paper map, all done digitally nowadays. Compared to the intelligence products I used to work with, today's trooper has access to amazing technology. We can share intelligence and develop targets faster than ever, and our troops can use this information immediately, but we cannot assume that we will always have this advantage. We must keep investing in the tools our intelligence analysts need to give our troops the edge to win on the battlefield.

Supporting cutting-edge digital mapping software in the Air Force's Geospatial Enterprise will provide one of these vital tools. This year, the Air Force requested \$10.9 million for combat air intelligence system activities. Within that amount, \$4.6 million is requested for a project called, "Geo-intelligence Information and Service Software," which provides the Air Force personnel support from the software developer to create layered maps that combine multiple sources of intelligence. These maps have broad application within the Air Force, developing good unit-level intelligence, allowing for just-in-time dissemination and targeting, helping commanders make the right decision.

This committee knows well the high cost and capability of Air Force aircraft, but mission planning information is equally important. Increasingly sophisticated air defense systems are being developed throughout the Middle East and Europe as well as the world, and challenge our supremacy in the air. Network mapping data allows our forces to reduce risk to our pilots in combat aircraft.

The Air Force is developing requirements for the next phase, the Air Force Distributed Common Ground System. This mapping software can fill the capability gap right now. This software will have an immediate impact on the capabilities of units like the Air Force Geospatial production cell at Wright Patterson Air Force Base, or the 55th Wing at Offutt Air Force Base, Nebraska.

So I am asking you to closely evaluate the Air Force budget request for this. The committee can provide a generic program funding increase of \$5 million for the competitive acquisition of commercial off-the-shelf software to enhance the Air Force's targeted and intelligence capability.

And I would just like to add that I was surprised that they asked an infantry marine to present this rather complicated request, because my usual question to the Air Force is where does the bayonet go on the airplane? But as somebody who has——

Mr. VISCLOSKY. What do they tell you?

Mr. COOK. They look at me, and you know, they said, Oh, we have got this thing we want you to present. But as somebody that has been in combat, somebody that actually went through that, and how important it is to know that—where the enemy is and the intelligence is vital. If you don't know, you are going to make mistakes, troops are going to die, bad things are going to happen. So, that is part of the reason I presented this. And I told this committee in the past, I believe, don't forget I was the most dangerous weapon in the world many years ago before most of the staff—before all the staff was probably born. I was a second lieutenant in the Marine Corps with a map and a compass, and that was a very, very dangerous individual, so, hopefully, now we have something better, Mr. Chairman.

Mr. FRELINGHUYSEN. We do, and thanks to your advocacy and colleagues on both sides of the aisle, thank you for putting a human face on why this mapping is important.

Mr. COOK. Thank you for having me.

Mr. FRELINGHUYSEN. Excellent job. Thank you very much.

[The written statement of Congressman Cook follows:]

**Congressman Paul Cook (CA-08)
Member's Day – Defense Appropriations Subcommittee
March 15, 2016**

Chairman Frelinghuysen, Ranking Member Visclosky, and members of the Subcommittee: Thank you for allowing me to testify before your Subcommittee today on an important initiative for the Air Force.

We have come a long way since my days in the Marines. What I used to have to do with grease pencils, sheets of plastic, and a paper map is now all done digitally. Compared to the intelligence products I used to work with, today's trooper has access to amazing technology. We can share intelligence and develop targets faster than ever, and our troops can use this information immediately. But, we cannot assume we will always have this advantage. We must keep investing in the tools our intelligence analysts need to give our troops the edge to win on the battlefield. Supporting cutting-edge digital mapping software in the Air Force's Geospatial Enterprise would provide one of these vital tools.

This year, the Air Force requested \$10.9 million for Combat Air Intelligence System Activities. Within that amount, \$4.6 million is requested for a project called "Geo-intelligence Information and Service Software", which provides Air Force personnel support from the software developer to create layered maps that combine multiple sources of intelligence. These maps have broad application within the Air Force: developing good unit-level

intelligence, allowing for just-in-time dissemination and targeting, and helping commanders make more timely and accurate decisions.

This Subcommittee knows very well the high cost and capabilities of Air Force aircraft. But, mission planning information is equally important. Increasingly sophisticated air defense systems are being deployed throughout the Middle East and Europe and challenge our supremacy in the air. Networked mapping data allows our forces to reduce risk to our pilots and combat aircraft.

While the Air Force is developing the requirements for the next phase of the Air Force Distributed Common Ground System, DCGS, this mapping software can fill a capability gap right now. This software would have an immediate impact on the capabilities of units like the Air Force Geospatial Production Cell at Wright Patterson Air Force Base, or the 55th Wing at Offutt Air Force Base, Nebraska.

So I am asking you to closely evaluate the Air Force's budget request for "Geo-intelligence Information and Service Software". The Committee can provide a generic program funding increase of \$5 million for the competitive acquisition of commercial off-the-shelf software to enhance the Air Force's targeting and intelligence capability.

Thank you for the opportunity to discuss this with you today.

Mr. FRELINGHUYSEN.

Dave Reichert.

Mr. REICHERT. My colleague has been waiting.

Mr. FRELINGHUYSEN. Okay. Bill Clay, come on up. Thank you.

Mr. CLAY. Thank you so much—

Mr. FRELINGHUYSEN. I apologize.

Mr. CLAY [continuing]. Mr. Chairman and Ranking Member Visclosky for allowing me to—

Mr. FRELINGHUYSEN. From the great State of Missouri, how are you? Thank you for being here.

SUMMARY STATEMENT OF CONGRESSMAN CLAY

Mr. CLAY. Thank you for having me. You know, the U.S. Navy provides our military with rapid effect and highly flexible force protection throughout the world, and the tip of that spear of these forces are the Navy's carrier-based squadrons of tactical warplanes. A key among these aircraft is the F/A-18 Super Hornet. And this year, before this subcommittee, the Secretary of the Navy and Chief of Naval Operations testified that there is an urgent need for additional Super Hornets.

This year's budget takes steps to help reduce the Navy's tactical aviation gap, three squadrons of Super Hornets, but it isn't quite enough to meet the high operational demands of tactical aviation, and that is why the Navy has identified as its number one unfunded priority adding 14 additional Super Hornets to help close the shortfall. This request anticipates that the Navy will follow through on its promise to add aircraft next year and beyond.

I am extremely proud to represent the thousands of highly skilled hard-working men and women in north St. Louis County who built the Super Hornet, and many other vital programs that support our brave men and women in uniform. These workers are part of America's absolutely vital national skilled manufacturing base, without which we would be unable to defend freedom, both for our homeland and for our allies as well.

In St. Louis, we have a long proud history of providing our military aviators with the finest warplanes ever produced. Generations of my constituents have helped defend freedom by applying their skills to build these aircraft. In his appearance in front of the Senate, Secretary Mabus said that it is imperative to keep this F/A-18 manufacturing line open both to close the Navy's tactical aviation gap, and to maintain its vital program for our allies who plan to place additional orders for this exceptionally capable and cost-effective aircraft.

This year's budget makes difficult decisions, and your subcommittee has the challenge of looking closely at that spending plan. You have always been responsive to putting the needs of our Nation's warfighters first, and I respectfully request that you give favorable consideration to the Navy.

Mr. FRELINGHUYSEN. Well, thank you, Mr. Clay, for being with us, and both Mr. Visclosky and all members of the committee are certainly strong advocates of the F-18 and their capabilities. We are also mindful, sometimes more than the Defense Department, that we have an industrial base, and a lot of remarkable people often have worked in that industrial base for many generations, so

we need to respect their skills. We can't get them back once we lose them.

Mr. CLAY. And you know before it was Boeing, it was McDonnell Douglas——

Mr. FRELINGHUYSEN. Yes, sir.

Mr. CLAY [continuing]. And its 15,000 workers.

Mr. VISCLOSKY. Surely it is not that way.

Mr. FRELINGHUYSEN. Thank you for being with us.

Mr. CLAY. Thank you guys. I appreciate it.

[The written statement of Congressman Clay follows:]

Testimony to the House Defense Appropriations Subcommittee

March 15, 2016

Congressman Wm. Lacy Clay (D) Missouri

**Mr. Chairman, Ranking Member
Visclosky, and Honorable Members of the
Subcommittee;**

**Thank you for allowing me to come
before you today to highlight a pressing
national security concern....closing the
U.S. Navy's tactical aviation gap.**

**The United States Navy provides our
military with rapid, effective and highly
flexible force projection throughout the
world.**

**Its carriers, ships, and battle groups are
often first to respond to international
crises.**

And the “tip of the spear” of these forces are the Navy’s carrier-based squadrons of tactical warplanes.

Key among these aircraft is the F/A-18 Super Hornet.

This year, before this Subcommittee:

The Secretary of the Navy and Chief of Naval Operations testified that there is an urgent need for additional Super Hornets.

This year’s budget takes steps to help reduce the Navy’s tactical aviation gap – (3 squadrons of Super Hornets) –

But it isn’t quite enough to meet the high operational demands on tactical aviation.

And that is why the Navy has identified, as its number one “unfunded priority” adding 14 additional Super Hornets to help close that shortfall.

This request anticipates that the Navy will follow through on its promise to add aircraft next year and beyond.

I’m extremely proud to represent the thousands of highly-skilled, hard working men and women in North St. Louis County who build the Super Hornet, and many other vital programs that support our brave men and women in uniform.

These workers are part of America’s absolutely vital national, skilled manufacturing base,

Without which;

We would be unable to defend freedom, both for our homeland, and for our allies as well.

In St. Louis, we have a long, proud history of providing our military aviators with the finest warplanes ever produced.

Generations of my constituents have helped defend freedom by applying their skills, dedication and talent around the clock to safeguard our national security.

In his appearance in front of the Senate,

Secretary Mabus said that it is imperative to keep this F/A-18 manufacturing line open, both to close the Navy's tactical aviation gap...and to maintain this vital program for our allies who plan to place

additional orders for this exceptionally capable and cost-effective aircraft.

This year's budget makes difficult decisions, and your Subcommittee has the challenge of looking closely at that spending plan.

You have always been responsive to putting the needs of our nation's warfighters first.

I respectfully request that that you give favorable consideration to the Navy's unfunded request and add 14 F/A-18E/F Super Hornets to the President's Budget to address the pressing tactical aviation gap.

**I look forward to working with you throughout the year on this critical national security issue.
Thank you very much.**

Mr. FRELINGHUYSEN. Congressman Dave Reichert from the great State of Washington. Thank you for your Air Force service.

SUMMARY STATEMENT OF CONGRESSMAN REICHERT

Mr. REICHERT. Thank you, Mr. Chairman. Thank you, Mr. Ranking Member. Thanks for holding the hearing and inviting us here today to share our thoughts. I am here supporting a partnership between military and law enforcement. Having been in Air Force and law enforcement for 33 years. Specifically, I am here to request that no funds be used in the fiscal year 2017 Department of Defense Appropriations legislation to fulfill Executive Order 13688, which is in regard to the 1033 program, the sale or donation of excess property from the Department of Defense to State and local law enforcement, otherwise known as 1033. As I said, it is essential to keeping our communities safe.

On January 16, 2015, President Obama issued Executive Order 13688, which created a prohibition list—prohibited list of items to be transferred under the 1033 program. This list includes armored tracked vehicles, .50-caliber firearms, ammunition, bayonets, camouflage, and other items.

So I am going to just take a moment here to speak from my own experience: 33 years with the sheriff's office, and we have had occasions to use this equipment. Helicopters, OH-58s, Hueys, which are helicopters that are Vietnam or vintage. We have been able to acquire those helicopters sometimes free, sometimes for \$500. I have had 11 helicopters when I was a sheriff, but those are used for parts and pieces and put together to make at least one helicopter fly. We have saved lives with those helicopters, especially the Hueys and search-and-rescue missions. The OH-58s are used for surveillance, still used today for surveillance and other tasks connected with our SWAT team maneuvers and missions.

I will just give you a quick story. You know about San Bernardino, but in the sheriff's office, when I was the sheriff in the late 1990s, we had a situation where a man killed his wife, killed his nephew, drove south on the freeway, ran over a motorcyclist, nearly killed him, jumped a fence, beat an 80-year-old woman over the head, broke her neck, ran next door, did the same thing to another senior citizen, killed her, broke into a house, and started shooting the neighborhood.

Our first responding officer was shot, bullet went through the windshield, trajectory flattened the bullet out, hit her in the forehead, went into the headliner of the car, knocked her out, we thought she was dead. I had five officers pinned down, three police cars riddled with bullets. He just happened to find a house that was full of ammunition and guns.

So we thought we had a dead officer or a seriously wounded officer laying in the front seat of this police car in front of this house. We used one of those armored vehicles, Mr. Chairman, to rescue that officer. She is alive and working today in the King County Sheriff's Office. Our SWAT team is moved in this vehicle. I was the SWAT commander for 3 years, I used that vehicle in SWAT missions, and it gave us cover and protection.

Police departments can't afford this material, can't afford this equipment on their own. There is a very regimented application

process for police officers and sheriff's departments across the country go through in acquiring this equipment. It has to be demilitarized before we use it. And if other requirements are needed, for example, maybe we don't paint them the Army green, maybe we paint them a dark blue, or they still have to be camouflaged into the—you know, blend in with the evening and the night.

But just for an example, some of the AR-15s that we acquired, we had those in the trunk. I mean, we had the officers put those in the trunk. Why did we get AR-15s? A lot of the smaller-statured police officers today can't shoot the shotgun; it knocks them over. And we have a combination of shotguns and AR-15s. People thought they were too militaristic, so we put them in the trunks and we avoided that problem.

There are a lot of things we can do to make this work. But the last thing, Mr. Chairman and Ranking Member, the last thing we want to do is to take this equipment away from law enforcement, especially in today's world where terrorism is a threat throughout this country and we are asking local law enforcement to do more and more and more as it relates to homeland security.

So I would ask, again, that you please don't provide any funding for the implementation of the President's Executive Order 13688.

Mr. FRELINGHUYSEN. Well, thank you for being here, for your service in the Air Force, and obviously your perspective as a long-time sheriff. I am very close to a number of sheriffs in my area, and they are very happy to have had the equipment they have been given, they use it responsibly. And I must say I agree with your position, and hopefully that will prevail.

Mr. REICHERT. Thank you.

Mr. FRELINGHUYSEN. Mr. Visclosky.

Mr. VISCLOSKY. I would just say that the last piece of equipment I helped a local community secure was an armored vehicle to ensure if there was a dangerous situation, that people would be safe as opposed to using it offensively. So I appreciate your comments.

Mr. REICHERT. Absolutely. Absolutely. Thank you. Thank you very much.

[The written statement of Congressman Reichert follows:]

1033 Program – Defense Appropriations Subcommittee Testimony – Rep. Dave Reichert

- Mr. Chairman,
- I am here to request that no funds be used in the Fiscal Year 2017 Department of Defense Appropriations legislation to fulfill Executive Order 13688 – which is in regards to the 1033 Program.
- The sale or donation of excess property from the Department of Defense to state and local law enforcement agencies, otherwise known as the 1033 program, is essential to keeping our communities safe.
- On January 16, 2015, President Obama issued Executive Order 13688 which created a prohibited list of items to be transferred under the 1033 program. This list includes armored tracked vehicles, .50-caliber firearms and ammunition, bayonets, and camouflage.
- While much of the equipment provided under the program is basic office equipment, with terrorist threats occurring

on a daily basis, law enforcement agencies are now tasked with being the front lines of domestic terror attacks where some of this equipment is needed to respond.

- For example, during the tragic terrorist attack in San Bernardino, law enforcement officers used armored vehicles as protection during their response to help prevent further loss of life
- Now is not the time to take away this needed equipment from law enforcement officers who sacrifice their lives every day to protect their communities.
- In order to receive equipment, law enforcement agencies must go through an extensive application process with all equipment received to be demilitarized before being released to the public.
- With budget cuts affecting every aspect of law enforcement, the 1033 program is a necessary tool that

law enforcement agencies use to fulfill their equipment needs.

- A well-equipped law enforcement agency is critical to our nation's national security – which is why it is very concerning that the President has attempted to stop the transfer of needed law enforcement tools
- That is why I request that no funds in the Fiscal Year 2017 Defense Appropriations bill should be used to carry out Executive Order 13688

Mr. FRELINGHUYSEN. We are pleased to welcome Congressman Buddy Carter, who has been very patient. I apologize for the delay.

Mr. CARTER. No worries.

Mr. FRELINGHUYSEN. We appreciate your being with us. I know you are a strong supporter of national defense. Thank you.

SUMMARY STATEMENT OF CONGRESSMAN CARTER

Mr. CARTER. Thank you. Thank you, Mr. Chairman, Mr. Ranking Member. I appreciate the opportunity to share my concerns and priorities for the First Congressional District of Georgia.

As you know, it is an honor for me to represent a district that is home to every branch of the military, and I am very proud of that. Our district is home to the Naval Submarine Base Kings Bay, the port for the Atlantic ballistic missile submarine fleet, which will soon reach the end of its life cycle. For this reason, I have submitted a programmatic request in support of the Ohio Replacement Program with the intent to maintain the development timeline.

The *Virginia*-class attack submarine and the Virginia Payload Module will also continue to play a large role in the Nation's submarine fleet through undersea strike capabilities. As such as I am supporting the President's budget request for the Virginia Payload Module and the *Virginia*-class submarines.

Similarly, the A-10s have been providing critical close air support for our ground troops since they first entered service in the 1970s. The combination of capabilities and survivability against defense platforms allows A-10s to continue to play a major role in air campaigns. That is why I am supporting full funding for the operations of the A-10 fleet.

Around the world, commanders have utilized a Joint STARS aircraft for accurate real-time information concerning enemy movements. With these aircraft being some of the oldest in the fleet, I have submitted a request supporting the President's budget request for the JSTARS platform and urge the committee to ensure the program remains on time and on budget.

The Special Operations community has experienced great strain on their readiness due to their operational tempo over the past decade. The Preservation of the Force and Families Initiative is a great program that will ensure our special operators and their families are adequately cared for. So I am supporting the President's budget for this program as well as requests for Special Operations aviation programs.

The Department of Defense has some very successful programs in place that educate today's youth. The STARBASE program and the National Guard's Youth Challenge Program have helped to better the lives of thousands of kids across the country. I have visited both of these. I can tell you they are very impressive. For that reason, I am supporting a funding request consistent with the needs of those programs and planned expansions.

Lastly, the Army recently validated a requirement to increase the total number of armored excavators needed for global missions. Those requirements are consistent with changing needs across the combatant commands for machines capable of route clearance and engineering projects. Therefore, I am submitting a request consistent with the needs of the Army.

I appreciate your attention to these matters, and I thank you for the opportunity to share them with you.

Mr. FRELINGHUYSEN. I want to thank the gentleman from Georgia. There certainly is a critical mass for just about everything. So your strong historic support for national defense covers a wide range of things that I know our committee is deeply committed to.

Mr. CARTER. Thank you.

Mr. FRELINGHUYSEN. Mr. Visclosky.

Mr. VISCLOSKY. I appreciate you highlighting the youth programs.

Mr. CARTER. Yes, sir. Yes, sir. I am very proud of those.

Mr. FRELINGHUYSEN. It is a great program.

Mr. CARTER. It is. Thank you very much.

[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 my concerns and priorities for the First Congressional District of Georgia. It's an honor to represent a district that is the home to every branch of the military and thousands of veterans who have honorably served our country. With this unique military footprint, the district's defense elements are vital to not just to our state and region but to the nation and its interests around the world.

Our district is home to the Naval Submarine Base Kings Bay, which is the port for the Atlantic ballistic missile submarine fleet. While these submarines play a critical role in nuclear deterrence and readiness, they will soon be reaching the end of their life cycle. The procurement timeline for the Ohio Replacement Program has been delayed, leaving open the possibility of a gap in the retirement of the Ohio-class submarines and new boats. I have submitted a programmatic request in support of the Ohio Replacement Program with the intent to maintain the development timeline. The Virginia-class attack submarine will also continue to play a large role in the nation's submarine fleet, and the Virginia Payload Module (VPM) is a cost-effective way to preserve our undersea strike capacity by adding expanded capabilities to the fleet. As such, I am supporting the President's budget request for the Virginia Payload Module and Virginia class submarines.

Similar in operational timeliness, A-10s, like the ones operated by the 23rd Wing out of Moody Air Force Base, have been providing critical close air support (CAS) for our ground troops since they first entered service in the 1970s. The combination of capabilities and its record of survivability against defensive platforms have earned it many supporters over the years

and it continues to play a major role in air campaigns. That's why I am supporting full funding for the operations of the A-10 fleet in the Fiscal Year 2017 Defense Appropriations bill.

Around the world, combatant commanders have utilized the Joint STARS battle management, command and control aircraft for accurate real-time information regarding our adversaries' movements. Those aircraft are now some of the oldest in the fleet and critically need funding for research and development. I have submitted a request supporting the President's budget request for the JSTARS platform and urge the committee to ensure the program remains on time and on budget.

The Special Operations community has seen a great bit of strain on their readiness due to their operational tempo over the past decade. The Preservation of the Force and Families (POTFF) initiative is a great program in which we can ensure our special operators, and their families, are adequately cared for while decreasing their down time to recover. I am supporting the President's budget for this program as well as requests for special operations aviation programs.

I would also like 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 provide complete protection for our troops.

The Department of Defense has some very successful programs in place that support the education and reform of today's youth. The STARBASE program and the National Guard's Youth Challenge Program have helped to better the lives of thousands of kids across the country. For that reason, I am supporting a funding request consistent with the needs of those programs and planned expansions.

Lastly, the Army recently validated a requirement to increase the total number of armored excavators needed for global mission needs. Those requirements are consistent with changing needs across the combatant commands for machines capable of route clearance and engineering projects. Therefore, I am submitting a request consistent with the needs of the Army.

I appreciate your attention to these requests and thank you for the opportunity to provide input.

Mr. FRELINGHUYSEN. Mr. Blumenauer, then Mr. Meehan.

I want to thank the gentleman from Oregon for being here. I think you are a repeat offender. We are glad to have you back.

Mr. BLUMENAUER. Well, I appreciate your courtesy and acknowledge that you have one of the most difficult tasks in Congress.

Mr. FRELINGHUYSEN. We, Peter Visclosky, and the entire committee. So we agree with it.

Mr. VISCLOSKY. You mean dealing with me?

SUMMARY STATEMENT OF CONGRESSMAN BLUMENAUER

Mr. BLUMENAUER. I won't talk about the dynamic here of committee leadership. But you are tasked with actually funding national security, which I think is everybody's top priority who serves in Congress.

I wanted to reference just a few things. One, I take modest exception to my good friend from Georgia, because I think we need to take a step back and look at what we are doing with nuclear modernization.

The spending that we are—a trajectory for a trillion dollars over the next 30 years for weapons we haven't used in 65 years are far in excess of what we need to deter any nation on Earth. Putting money in the pipeline to upgrade all three legs of the nuclear triad may look good in terms of the authorizing committee, but you have to deal with the realities of what that means, and that is going to come at the expense of hollowing out our defense responsibilities.

I am deeply troubled that we are looking at this next phase of the replacement cruise missile, which is going to be another \$20 or \$30 billion. The father of the cruise missile, former Secretary of Defense William Perry, feels it is no longer relevant. I mean, it is just one example of something we can get along without.

At the same time, the President's budget slashes the work to try and deal with nonproliferation efforts. I mean, the fastest way that the people who hate us are going to get access to loose nukes is the stuff that is going on. There is evidence that ISIS actually has some low-grade fission material, and we are cutting back. It is a miniscule amount of money, but it is something that speaks directly to the security of the United States, a trillion dollars over 30 years and starving \$130 million for something that would make a huge difference to our security.

I likewise want to express my appreciation for the committee's work in the past pushing back on the effort to try and slide—the authorizing committee trying to create the Sea-Based Deterrence Fund, which takes away the responsibility for the Department of the Navy to choose between its various activities and slides it into the Pentagonwide budget.

And the Appropriations Committee, I think, has appropriately pushed back. I know it is not easy. That would be a simple solution, like the overseas contingency fund, which can be a little slush fund, but in the long-term, that would be disastrous.

And I would hope that in the course of your work, that you can at least work with us to try and find out what the actual budgets are going to be for this menu of choices. Somehow that was controversial in past budgets. I think that whether you think that we need to upgrade all our nuclear weapons and spend that trillion

dollars or if you think we have other priorities, like protecting the Guard and the Ready Reserve and the Army and the Marines, regardless of where you are on that continuum, wouldn't you want to know what they actually cost? And you can help us with a little pushback on that.

Again, I appreciate this is a tough job. I know you have got lots of different competing interests. But the extent to which you can help us have an honest accountability, maybe slide away from some things that we actually don't need and will have a disastrous effect in the future, and be able to have an honest accountability, and last but not least, have those nuclear nonproliferation funds, it is a rounding error in the budget, but it is critical for the defense of the United States.

Mr. FRELINGHUYSEN. Well, we appreciate the gentleman from Oregon's regular straightforward frankness on a lot of critical issues as we deal with our nuclear obligations, our conventional weapon obligations. We want to do the right things. We need to know how much things cost. I fully agree with you.

We do, of course, take a look at the investment on nonproliferation, given what is happening around the world. I know Mr. Visclosky and I feel strongly that is part of our annual obligation. So we are hopefully on our game.

I yield to Mr. Visclosky.

Mr. VISCLOSKY. I thank the chairman very much.

I appreciate you raising the issues, and it is very apropos, because both the chairman and I, one, we continue to serve on Energy and Water, as does Mr. Calvert on our committee. It is an accident of fate, but it is very useful, because of the NNSA programs, the nonproliferation programs that you have talked about.

And the chairman and I both served as chair and ranking on that subcommittee as well and have struggled with some of these issues, because too often the Department sends over a letter to DOE and says, "We need everything," because it is not out of their budget. And I share your concern about the proliferation program. So you have come to the right place.

Thank you very much.

Mr. FRELINGHUYSEN. Thank you very much.

Mr. BLUMENAUER. Thank you.

[The written statement of Congressman Blumenauer follows:]

**Testimony of Congressman Earl Blumenauer
March 15, 2016**

- **Thank you Chairman Frelinghuysen and Ranking Member Visclosky. I appreciate the opportunity to testify today.**
- **The Administration has unveiled a defense budget that is not only unrealistic, but could also be dangerous. It keeps spending for nuclear modernization on track at over \$3 billion for Fiscal Year 2017.**
- **This comes at a time when one third of Americans think that the US is spending too much on defense, and more than half of registered voters across the country favor cutting the defense budget by \$12 billion.**
- **In this budget, billions of dollars will be spent on the controversial modernization of each leg of the nuclear triad—land-based missiles, submarine-based missiles, and bombers—which have not been used in 65 years.**

- **Most concerning is the inclusion of funding for a long-range, standoff replacement cruise missile, costing \$2.2 billion in the future years defense program. This will ultimately cost \$20 to \$30 billion, if not more.**
- **To be clear, this is merely to replace a cruise missile that the father of the device, former Secretary of Defense William Perry, feels is no longer relevant and has argued against.**
- **Congress should be pressing the Pentagon both for long-term cost reports, and to answer tough questions like, to what extent do certain weapons programs and their funding levels add to our existing capabilities?**
- **These weapons systems have been unable to help us address the military challenges that we face now in the Middle East and will consume huge sums of money in hopelessly redundant programs.**

- **The defense budget is also dangerous because of the spending reductions in the nuclear nonproliferation programs of more than \$130 million. These cuts pose real threats to our security.**
- **We are battling ISIS now. They have already obtained some low-grade nuclear material from a scientific research facility in Mosul. We have also seen reports of nuclear materials unaccounted for or stolen.**
- **We need to have these proven nonproliferation programs to reduce the inventory, track nuclear materials down, and take them out of circulation. We should be expanding these programs, not cutting them back.**
- **Additionally, by continuing a trend that results in spending 1 trillion dollars on modernizing the triad over the course of the next 30 years, nuclear modernization will come at the expense of our conventional weapons.**
- **Our nuclear capability is already far above what we need to deter any country in the world right now and this capability**

does not help us with the strategic challenges that we face today.

- **A stronger nuclear program is not going to prevent Russian adventurism in Ukraine or Crimea, but it will result in our having to cannibalize the National Guard and Ready Reserve. The Army will also be paying the price for this.**
- **These conventional forces have borne the burden for the last two decades of military activities and are going to be needed for both deterrence and, heaven forbid, further activity in the future.**
- **We cannot do all of this within the current budget horizon.**
- **We also have a little trust fund, the Overseas Contingency Operations account, that helps us ignore long-term budget realities and the costs of weapons programs. We are choosing to put that budgeting problem off for a future Administration and future Congresses.**

- **In so doing, we are playing fast and loose with the integrity of the Pentagon, with the resources and the materials that are necessary to support our troops now and in the future.**
- **It is not too late for this Congress to demand a spending plan, cost accountability, kill the new cruise missile program, and put us on a path of fiscal stability and sanity.**
- **Instead of continuing down this unsustainable path, let's focus on maintaining appropriate priorities for the military strength and defense of our country.**

Mr. FRELINGHUYSEN. Mr. Pat Meehan, the gentleman from Pennsylvania, welcome. Thank you for your patience. I apologize for keeping you waiting. And we note the green tie. And having gone to four St. Patrick's Day parades over the last 2 weeks, I feel that I am very much in accord with your heritage. Thank you very much.

Mr. MEEHAN. Well, thank you very much, Mr. Chairman.

Mr. BLUMENAUER. We have got to get you a green bicycle.

SUMMARY STATEMENT OF CONGRESSMAN MEEHAN

Mr. MEEHAN. A green bike, yeah. Earl, I am ready to ride. The green bikes and the cherry blossoms, it will really be quite the combination here in Washington, D.C.

Well, thank you, Chairman. I am very grateful for your extending the opportunity for us to, with Ranking Member Visclosky, and all the diligence that you put in to making these very, very difficult decisions and choices.

But I am here today to talk about a very, very important asset to our military, which is the V-22 Osprey, the military aircraft, which has proven itself by its performance, by its flexibility, and by the choice of our warfighters as it has demonstrated its effectiveness in not only the theaters of war, but also its ability to represent the Nation so effectively in responding to catastrophes and things of that nature.

So it has proven itself in a very short period of time to be one of the most flexible and important assets that our Marine Corps has.

Now, the Osprey is built at the Boeing facility in Ridley Park, Delaware County. It is also cobuilt in Texas. The important part to realize here is it was purchased under a 5-year contract that Congress authorized in fiscal year 2013. Now, what it did was it signed a multiyear contract that saved taxpayers almost a billion dollars by doing the multiyear contract.

But when the President signed the 2017 budget request, he unexpectedly reduced the procurement of the Osprey from the agreed-upon 18 to only 16 airframes. And what is going to happen is now we are going to jeopardize the unit-cost capacity that was generated by the original contract, it is going to jeopardize the jobs at both Boeing and in Texas, Boeing in my district.

And most importantly, it is going to incur additional cost for taxpayers, it is going to deprive our troops of the two airframes that have been used so effectively on the battlefields.

The Marine Corps has asked for these two additional airframes. They were placed in the annual unfunded priorities list. And the arbitrary cut included in the President's budget is just another demonstration of how it doesn't meet the needs of our men and women who are serving our Nation in uniform.

I have watched as the performance of this has proven itself, but also the workforce that has contributed dramatically to the ability to make these available in the most cost-effective manner.

So I ask you to continue the tradition of supporting the V-22 by fully funding production of the 18 airframes in the fiscal year 2017 budget. The V-22 is working for our troops in the field, its production is supporting good middle class jobs, not only in Pennsylvania,

but in Texas. I urge you to support it. And I thank you for the consideration.

Mr. FRELINGHUYSEN. Well, thank you for your time and for your strong support of national defense. The Osprey is an amazing, amazing aircraft and does provide incredible capability, incredible flexibility, and certainly the Marines are a strong advocate for it. We will do our level best with the dollars that we have within our budget to see what we can do to make sure that we have more of them and that we protect the very important industrial base.

Mr. MEEHAN. When I have talked to Marines from Iraq and Afghanistan, they talked about the flexibility and the ability for them to quickly get up into the air and respond. It also protects them from IEDs. It is a huge benefit. They can get to the source, make an impact, and get back without having to incur any kinds of danger along the way.

Mr. FRELINGHUYSEN. Absolutely.

Mr. Visclosky.

Mr. VISCLOSKY. I am fine. Thank you very much.

Mr. FRELINGHUYSEN. Thank you very much.

Mr. VISCLOSKY. Appreciate it.

Mr. FRELINGHUYSEN. Thank you, Mr. Meehan.

[The written statement of Congressman Meehan follows:]

Testimony of the Honorable Patrick Meehan
Member of Congress (PA-07)
Tuesday, March 15, 2015
House Appropriations Committee – Defense Subcommittee

Chairman Frelinghuysen, Ranking Member Visclosky, and Members of the Committee, I want to thank you for inviting your colleagues here to testify before you today and thank you for holding this hearing. I have great respect for the thoughtfulness and diligence with which you approach your duties, and I know it's often challenging to balance competing needs with limited resources.

I'm before you today to talk about the importance of one of our most sophisticated military aircraft, the V-22 Osprey. The V-22 has been crucial to the success of a number of complicated combat operations. It offers troops in the field and their commanders a unique and unmatched flexibility. It's earned the praise of the men and women who fly it, who say that the V-22 enables them to move men and material around the battlefield unlike ever before.

The Osprey is constructed at Boeing's facility in Ridley Park, Delaware County. It's purchased under a five-year contract that Congress authorized in Fiscal Year 2013. Signing a multi-year contract saved taxpayers almost \$1 billion. But the President's 2017 budget request unexpectedly reduced the procurement of the Osprey from the agreed-upon 18 to 16.

The cut could raise unit costs, jeopardize jobs at the Boeing facility and incur additional and costs for taxpayers. And it deprives our troops two airframes that could be used on the battlefield.

The Marine Corps wants these two additional airframes: they were placed on its annual unfunded priorities list. The arbitrary cut included in the President's budget is just another demonstration of how it doesn't meet the needs of our men and women serving our nation in uniform.

The V-22 Osprey has proven itself to be a versatile and valuable tool in the hands of our warfighters. It's success is a tribute to the skills of the men and women who fly it -- and the talented workforce that produces it.

I ask that your committee continue its tradition of support for the V-22 by fully funding the production of 18 airframes in the Fiscal Year 2017 budget. The V-22 is working for our troops in the field. It's production is support good middle class jobs in Pennsylvania. And I urge you to support it.

Thank you for your consideration.

Mr. FRELINGHUYSEN. Congressman Mo Brooks, great State of Alabama. Thank you for being with us.

SUMMARY STATEMENT OF CONGRESSMAN BROOKS

Mr. BROOKS. Roll Tide. And I should say War Eagle for those folks too.

Thank you for the opportunity to be here with you, Mr. Chairman. I have got written remarks that we have put together, and if you don't mind, I am just going to read them in order to expedite things and move along quickly.

Thank you for the opportunity to testify today about an urgent operational need for the Army's 82nd Airborne Division, tasked with the Global Response Force mission. As documented in the Division's urgent operational needs statement on March 2014 by the 13th Airborne Corps and now Vice Chief of Staff of the Army, General Allyn, there is a lack of resources available for increasing our enhanced tactical mobility capabilities.

Specifically, these requirements were for GRF Infantry Brigade Combat Teams assigned to the Joint Chiefs of Staff to counter increased proliferation of the enemy's area denial and anti-access capabilities by conducting airborne assaults.

The 82nd Airborne Division's unique requirements and its gap in meeting policy directives present a critical and time-sensitive requirement that cannot be delayed while the Army considers a broader program of record. Senior Army leadership continues to validate this urgent need. It is documented in the 2015 United States Army Combat Vehicle Modernization Strategy and identified as a fiscal year 2015 assessment by the 18 Airborne Corps that lack of Infantry Brigade Combat Team's ground mobility is one of their highest risks.

To quote a key paragraph on page 8 from the recently published Army TRADOC Combat Vehicle Modernization Strategy, quote: "The infantry brigade combat team's greatest limitation is its tactical and operational mobility once deployed. This capability shortfall, or gap, is especially critical in joint forcible entry scenarios that rely upon swiftly seizing key terrain or facilities to establish a lodgment for follow-on forces. Because potential adversaries possess A2, area access, and AD, area denial, capabilities that prevent direct seizure of air- or seaports, the infantry brigade combat teams must maneuver from greater distance into undefended locations and then maneuver rapidly to seize entry points for follow-on forces. This type of movement requires tactical mobility for infantry squads to move quickly, on or off road, to attack from multiple directions more swiftly than enemies can respond." End quote.

Providing Army Airborne, Air Assault, and Light Infantry access to deployable off-road mobility that has already been fielded in United States SOF units today is an easy, affordable, low-risk solution. It also serves as a commonsense example to the much-discussed need for DOD acquisition streamlining.

In order to fill this need, I authored a House letter to your subcommittee asking for your consideration to fund and field a commercial off-the-shelf technology for three battalion task forces, 369 vehicles. Through this funding, we will be able to give critical mo-

bility capabilities to troops with limited options for traveling in rugged off-road combat zones.

Again, thank you, Chairman and Ranking Member, for the opportunity to testify.

Mr. FRELINGHUYSEN. Mr. Brooks, thank you for being here, obviously for your strong support of national defense. And you have Redstone Arsenal in your backyard—

Mr. BROOKS. Yes, sir.

Mr. FRELINGHUYSEN [continuing]. Which does some remarkable things for the Nation.

May I put a plug in for commercial product is out there. Sometimes the different services are a little resistant. But in reality we need sort of a mixture of our own defense R&D and the capabilities of the private sector. So I appreciate your testimony.

Mr. BROOKS. Thank you, Mr. Chairman.

Mr. VISCLOSKY. Thank you.

Mr. BROOKS. Thank you.

[The written statement of Congressman Brooks follows:]

Remarks by Rep. Mo Brooks (AL-05)
To the House Appropriations Subcommittee on Defense—3/15/2016

Thank you for the opportunity to testify today about an urgent operational need for the Army's 82nd Airborne Division, tasked with the Global Response Force (GRF) mission. As documented in the division's urgent Operational Needs Statement (ONS) in March 2014, by XVIII Corps and then, FORSCOM Commander, now Vice Chief of Staff of the Army, General Allyn, there is a lack of resources available for increasing our enhanced tactical mobility capabilities.

Specifically, these requirements were for GRF Infantry Brigade Combat Teams (IBCT) assigned to the Joint Chiefs of Staff to counter increased proliferation of the enemy's area denial and anti-access capabilities by conducting airborne assault. The 82nd Airborne Division's unique requirements and its gap in meeting policy directives present a critical and time sensitive requirement that cannot be delayed while the Army considers a broader program of record.

Senior Army Leadership continues to validate this urgent need. It is documented in the 2015 US Army Combat Vehicle Modernization Strategy, and identified in an FY15 assessment by the XVIII Airborne Corps that lack of IBCT ground mobility is one of their highest risks. To quote a key paragraph, on page 8, from the recently published Army TRADOC Combat Vehicle Modernization Strategy;

"The infantry Brigade Combat Team's (BCT) greatest limitation is its tactical and operational mobility once deployed. This capability shortfall (Or gap) is especially critical in joint forcible entry scenarios that rely upon swiftly seizing key terrain or facilities to establish a lodgment for follow on forces. Because potential adversaries possess A2 (Area Access) and AD (Area Denial) capabilities that prevent direct seizure of air- or seaports, the infantry BCT must maneuver from greater distance, into undefended locations, and then maneuver rapidly to seize entry points for follow on forces. This type of movement requires tactical mobility for infantry squads to move quickly, on or off road, to attack from multiple directions more swiftly than enemies can respond."

Providing Army Airborne, Air Assault and Light Infantry access to deployable, off-road mobility that has already been fielded in US SOF units today is an easy, affordable, low risk solution. It also serves as a common sense example to the much discussed need for DoD acquisition streamlining.

In order to fill this need, I authored a House letter to your subcommittee asking for your consideration to increase FY17 Operations and Maintenance funding. These monies will field a commercial, off the shelf technology (COTS), for 3 Battalion Task Forces (369 vehicles). Through this funding, we will be able to give critical mobility capabilities to troops with limited options for travelling in rugged, off road combat zones.

Again thank you, Chairman and Ranking Member, for the opportunity to testify.

Mr. FRELINGHUYSEN. Mr. Chris Gibson from the great State of New York. Thank you for being here, thank you for your Army service.

SUMMARY STATEMENT OF CONGRESSMAN GIBSON

Mr. GIBSON. Well, thank you. Thanks, Mr. Chairman and the Ranking Member. I want to thank you both for your long and faithful service to our Nation and for your tremendous support for our service men and women and their families. As a 29-year veteran myself, I remember serving and seeing both of your strong support in terms of legislation and vocal support on the floor, and it is deeply appreciated.

Mr. FRELINGHUYSEN. Thank you.

Mr. GIBSON. I am here today to talk about a bill I have introduced, a bipartisan bill, that appears to be gaining significant bipartisan support, and I believe it will have bearing on defense appropriations later this year. It has to do with the strength of our land forces, land forces as defined by the Army, that is the regular Army, the National Guard, and the Army Reserve and the United States Marine Corps, Active-Duty Marine Corps and the Marine Corps Reserve.

Mr. Chairman and Ranking Member, since the time that the decisions were taken to draw down the land forces, there have been a series of developments, and I believe that the assumptions that were made when we made these decisions are no longer valid. And by the way, just for specificity, drawdown needs to continue to 2018 and is on course to take our land forces to pre-World War II levels, to take the Army down below a million, to take the Marine Corps down significantly as well.

And when you look at the assumptions, we have seen the rise of the Islamic State since that time, we have seen an evermore aggressive Russia involved not only in Eastern Europe, but then introducing forces into Syria. We have had concerns about a quixotic North Korea, concerns about China's activities in their desires in terms of the South China Sea and other places. And, of course, Iran.

And so, with all of that, and when you consider the fact that, in my view, it was debatable even in the first place, what is sometimes called the myths associated with conflict.

As somebody who served on the ground in Iraq four times, including three times after 9/11, those actions were certainly not the cakewalk that some thought that those activities were intended to be.

And so I think when you look at the approach that I think we all agree upon, which is one of peace through strength and the need to assure allies and to deter potential adversaries, nothing would make me happier than if this generation, millennials, would go their whole lifetime without seeing a shot fired in anger. But the history of mankind is such that to be able to make a difference on that, we need a strong defense.

And when you look at these assumptions, the changes on that score, I believe that we need to stop the drawdown. That is what our bill does. Myself, Sergeant Major Walz, Tim Walz, Democrat from Minnesota, we have authored this bill. To date, there are 20

Republicans and 6 Democrats on this bill. We are working with leadership in the House Armed Services Committee that this would occur.

So essentially the drawdown would stop and we would be at slightly above—slightly above—about 9,000 above pre-9/11 force levels for our land forces, so basically the 10th of September of 2001, which we think, in view of the entire joint force, will help us assure our allies and deter our potential adversaries, and if that day ever comes that we need to fight the wars, that we will fight and win.

So, of course, the cost is an issue here, and there would be many different perspectives on that score, right, but the one that obviously matters is the Congressional Budget Office, which comes in at \$600 million.

So we know we have some lifting to do in the Armed Services Committee. But, Mr. Chairman and Ranking Member, I am here today, and, of course, a distinguished panelist as well who has been involved in intelligence for many, many years and Defense Approps, I am here today to really raise your situational awareness that I think this is an issue we are going to have to deal with this year.

Because, Mr. Chairman, in the event that we continue on with this drawdown, not only will it take us down to, I think, unacceptable risk levels and to pre-World War II levels, as you know, as you both know, as you all know, it is not like a light switch that we can turn off and turn back on. If we end up reducing the land forces down to these perilous levels, the next President, whoever that may be, will spend their entire first term just trying to get back to where we are at this moment. It will take 3 to 4 years just to get us back to where we are today.

I think that is unacceptable, and that is really why I am here today, and to stand for any questions that you may have on that.

Mr. FRELINGHUYSEN. Well, thank you for your very sobering testimony. I think we are all concerned about end strength. And your recent service in the Army obviously points up the fact that we never know what may happen in the future. But certainly the drawdown is a concern.

Thank you for highlighting your bipartisan legislation. I just want to assure you our committee works very closely with Chairman Thornberry and the authorizers, and we will see what we can do to address some of the issues that I think will have a future impact on our national security.

Mr. Visclosky.

Mr. VISCLOSKY. I appreciate the testimony. And we talk about in terms of number of shifts as well as personnel. Personnel are more capable than ever before. But you need a certain number. And, unfortunately, some people think that given the large size of the budget at DOD, it is an infinite amount of money. It is not. But you have got to make room for the right things. So I appreciate your testimony very much.

Mr. GIBSON. You bet. And just to put a finer point on that. Right now in terms of the time soldiers, service men and women are back here in the United States and before they go forward, that dwell time is still about one to a little over one and a half. And if we ever

get committed to a major theater of war, which, again, we hope we don't, there will be no dwell time.

And so we are all dealing with as well post-traumatic stress, brain injury, and the impacts of constant rotations overseas. And in view of that, this bill also helps buy down some of that risk by taking care of our service men and women.

Mr. FRELINGHUYSEN. A brief comment from Mr. Ruppertsberger, and then we will go to Mrs. Wagner.

Mr. RUPPERSBERGER. Very quickly, Rod. I know you are behind.

First, I agree with your comment on peace through strength. World history shows that. Secondly, I suggest, and I will work with you on this, that we deal with the issue of sequestration, because that in the end is going to make us weaker and weaker, and it is still out there.

Mr. GIBSON. Yes, sir. Thank you.

Mr. VISCLOSKY. Thank you, Chris.

[The written statement of Congressman Gibson follows:]

Congressman Chris Gibson

**Testimony before the House Appropriations Subcommittee on
Defense:**

End Strength Priorities for the FY2017 Defense Appropriations

Good morning Chairman Frelinghuysen, Ranking Member Visclosky, and distinguished members of the Committee. Thank you for the work you do to preserve the security of our great nation and for allowing me to testify before the subcommittee regarding a priority of mine and 27 other bipartisan members of Congress, including 7 Democrats and 20 Republicans, primarily on the House Armed Services Committee.

This initiative is embodied in my bill, *H.R. 4534, the Protecting Our Security Through Utilizing Right-Sized End-Strength Act of 2016*, or the “POSTURE Act.” This legislation is simple: it stops the drawdown of the end strength levels for the Land Forces of the United States. We began decreasing the size of our Army, Army National Guard, Army Reserve, Marine Corps, and Marine Corps Reserve to coincide with the drawdown of combat forces in Iraq and accelerated it with the drawdown in Afghanistan. This decrease was primarily based on risk assessments established in a different world, a world before ISIS and a resurgent Russia, before an increasingly belligerent and unpredictable North Korea, before an expansionist China, and a world before a refinanced Iran. Simply put, the risks faced by the United States and our partners and allies across the globe are greater than at any time in recent history.

And yet, we are currently on the glidepath to the smallest Land Force size since pre-World War II. We cannot continue this dangerous erosion of our principle conventional deterrent against our enemies and tool of assurance to our allies and partners. Should we continue this drawdown, and should we find ourselves engaged in a major engagement, we will

have to fully commit our entire force and have no dwell time to provide respite to our service men and women and their families. Furthermore, the next President will have to use his or her entire first term simply rebuilding what we have lost.

We cannot continue this misguided policy that was established in a less-risky world. While I am not submitting this legislation or components of it as an initiative to the House Appropriations Committee as a Member initiative, I felt the need to engage you all on it and ask that you closely coordinate with the House Armed Services Committee to ensure not only that the drawdown is stopped, but that our personnel are adequately funded in order to guarantee a robust, ready, equipped, and well-trained force rather than an underfunded, hollow force. It is my understanding that the cost of the POSTURE Act compared to current law will be approximately \$600 million in FY17. I ask that this Subcommittee and the Full Appropriations Committee work closely with HASC and the Budget Committee to properly fund the entire DOD Budget and our national security apparatus.

Mr. FRELINGHUYSEN. The Congresswoman from Missouri, Ann Wagner. Thank you for being with us. Thank you for your patience.

Mrs. WAGNER. Thank you. I am sorry.

Mr. FRELINGHUYSEN. You are not late. We are behind, I can assure you. If anybody feels insulted because they didn't get called upon first, we are off to a late start.

SUMMARY STATEMENT OF CONGRESSWOMAN WAGNER

Mrs. WAGNER. Well, I want to thank you for your time, Chairman, and the Ranking Member, who is here also, and other members of the subcommittee. I want to thank you, first of all, for your steadfast commitment to our Nation's most pressing national security matters. In that vein, I want to highlight the growing stresses on the demands of the United States Navy tactical aviation.

As you know, the ongoing wartime operations against the Islamic State of Iraq and the Levant has greatly increased the operational tempo of our tactical aircraft. The carrier-based aircraft, the F/A-18 Hornets and Super Hornets, have been the backbone of our force projections and engagement.

Last year, the Chief of Naval Operations testified that his Navy faced a shortage of operational aircraft. This is commonly referred to as a tactical aviation shortfall. Congress and your committee, Mr. Chairman, led the way in addressing part of this challenge with added aircraft in fiscal year 2016.

However, the President has not budgeted to take on the challenge more robustly in this year's budget. Only two Super Hornet aircraft were added in the OCO in response to training and operational losses. The fiscal year 2018 budget shows a demand for 14 more aircraft, but there still is potential gap this year.

These actions taken to address the tactical aviation shortfall are not enough. This is why the Chief of Naval Operations has provided Congress with an unfunded requirement request for 14 additional Super Hornets above the President's budget. There remains a shortfall of at least 36 Super Hornet aircraft. And given the critical capability that the Super Hornet provides for ongoing wartime operations, any shortfall is dangerous to the Navy's ability to project force throughout the world.

This unfunded requirement request helps mitigate that shortfall, anticipating that the Navy will follow through on its promise to add aircraft in next year's budget deliberations.

Of added importance, the addition of these Super Hornets keeps a key production line open for capable strike fighter aircraft in St. Louis, which supports some 5,000 local jobs. In years past, your committee has been incredibly responsive to the warfighters' most pressing needs, and the budget and its unfunded requirement request demonstrate how important tactical aviation is to the Navy's mission. The Super Hornet is providing that critical capability today at the most affordable cost.

So I ask that you urgently consider the Navy's unfunded request and add the 14 Super Hornets to the President's budget to address the tactical aviation shortfall and the warfighters' needs.

And as always, I look forward, Mr. Chairman, to working with you and the ranking member and others on your committee. I have

testified before Chairman Thornberry's committee also. And I want to thank you for your consideration of the request.

I will have a letter here that I will be sending to you regarding the Navy's request for the 14 additional Super Hornets.

Mr. FRELINGHUYSEN. If there is no objection, we will put it in the record today.

Mrs. WAGNER. Absolutely. It is to be signed by Members of the delegation of both Missouri and Illinois, a bipartisan basis.

Mr. FRELINGHUYSEN. Well, this is a bipartisan committee—

Mrs. WAGNER. Absolutely.

Mr. FRELINGHUYSEN. So we will do our best to look at it and consider it. Navy tactical aircraft, pretty important. You should know, many of those who preceded you put in a good plug for the Super Hornets, and your added emphasis is indeed welcome.

Mrs. WAGNER. Well, and as an Army mom and who has a son who is fighting as a captain and has served in the Middle East, I can't tell you what these kinds of aircraft can do in terms of the capabilities on the front end as the soldiers move forward. So I thank you.

Mr. FRELINGHUYSEN. We thank you for your family's service.

Mrs. WAGNER. Yes. Thank you.

Mr. FRELINGHUYSEN. It is remarkable.

Mr. VISCLOSKY. Thank you very much. I appreciate it.

Mrs. WAGNER. I appreciate it.

[The written statement of Congresswoman Wagner follows:]

Testimony to the House Appropriations Subcommittee on Defense (HACD)
Representative Ann Wagner (R-MO)
March 15, 2016 (as prepared)

Chairman Frelinghuysen, Ranking Member Visclosky, and Members of the Subcommittee. I want to begin by thanking you for your steadfast commitment to our Nation's most pressing national security matters. In that vein, I want to highlight the growing stresses on and demands for United States Navy tactical aviation.

As you know, the ongoing wartime operations against the Islamic State of Iraq and the Levant (ISIL) have greatly increased the operational tempo of our tactical aircraft. The carrier based aircraft – F/A-18 Hornets and Super Hornets, have been the backbone of our force projection and engagement.

Last year the Chief of Naval Operations testified that his Navy faced a shortage of operational aircraft. This is commonly referred to as the tactical aviation shortfall. Congress – and your Committee led the way – addressing part of this challenge with added aircraft in Fiscal Year 2016.

However, the President has not budgeted to take on the challenge more robustly in this year's budget. Only 2 Super Hornet aircraft were added in the OCO, in response to training and operational losses. The Fiscal Year 2018 budget shows a demand for 14 more aircraft, but there still is a potential gap this year.

These actions taken to address the tactical aviation shortfall are not enough. That is why the Chief of Naval Operations has provided Congress with an "unfunded requirement" request for 14 additional Super Hornets above the President's Budget.

There remains a shortfall of at least 36 Super Hornet aircraft. Given the critical capability that the Super Hornet provides for ongoing wartime operations, any shortfall is dangerous to the Navy's ability to project force throughout the world.

This unfunded requirement request helps mitigate that shortfall, anticipating that the Navy will follow through on its promise to add aircraft in next year's budget deliberation.

In addition, the addition of these Super Hornets keeps a key production line open for capable strike-fighter aircraft in St. Louis which supports 5,000 local jobs.

In years past, your committees have been incredibly responsive to the warfighter's most pressing needs. The budget and its unfunded requirement request demonstrate how important tactical aviation is to the Navy's mission.

The Super Hornet is providing that critical capability today at the most affordable cost.

I ask that you urgently consider the Navy's unfunded request and add 14 F/A-18E/F Super Hornets to the President's Budget to address the tactical aviation shortfall and the warfighter's needs.

I look forward to working with you throughout the year on this issue. Thank you for consideration of this request.

We ask that you take into consideration the recent demands placed on Naval tactical aviation as you consider the President's Budget request for Fiscal Year 2017.

March xx, 2016

The Honorable Mac Thornberry
Chairman
House Armed Services Committee
2120 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Rodney Frelinghuysen
Chairman
House Defense Appropriations Subcommittee
H-405, The United States Capitol
Washington, D.C. 20515

The Honorable Adam Smith
Ranking Member
House Armed Services Committee
2120 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Peter Visclosky
Ranking Member
House Defense Appropriations Subcommittee
1016 Longworth House Office Building
Washington, D.C. 20515

Dear Chairmen and Ranking Members:

Thank you for your steadfast commitment to our Nation's most pressing national security matters. We ask that you take into consideration the recent demands placed on Naval tactical aviation as you consider the President's Budget request for Fiscal Year 2017.

The Fiscal Year 2017 budget highlights the growing stresses on and demands for United States Navy tactical aviation. Ongoing wartime operations against the Islamic State of Iraq and the Levant (ISIL) have greatly increased the operational tempo of our tactical aircraft, particularly that of our carrier-based F/A-18E/F Super Hornet fleet. In this budget, the Navy took steps to address its shortage of operational aircraft – commonly referred to as the tactical aviation shortfall. Specifically, the budget request includes two F/A-18E/F Super Hornets in the Overseas Contingency Operations (OCO) to replace training and operational losses. Also, the Navy included funding to extend the service life of older, legacy Hornet aircraft to help address the inventory that is perpetually “out of reporting” due to maintenance and high flight hours.

These actions taken to address the tactical aviation shortfall are not enough. That is why the Chief of Naval Operations (CNO) has provided Congress with an “unfunded requirement” request for 14 additional Super Hornets above the President's Budget. Last year, the previous CNO testified to a shortfall of 36 Super Hornet aircraft, and that shortfall still remains. Given the critical capability that the Super Hornet provides for ongoing wartime operations, any shortfall is dangerous to the Navy's ability to project force throughout the world.

In years past, your committees have been incredibly responsive to the warfighter's most pressing needs. The Navy's budget and its unfunded requirement request demonstrate how important tactical aviation is to its mission, and the Super Hornet is providing that critical capability today at the most affordable cost. We ask that you add 14 F/A-18E/F Super Hornets to the President's Budget to address the tactical aviation shortfall and the warfighter's needs.

We look forward to working with you throughout the year on this issue. Thank you for consideration of our request.

Sincerely,

Mr. FRELINGHUYSEN. Congresswoman Niki Tsongas from Massachusetts. Thank you very much for being with us. Thanks for your patience.

SUMMARY STATEMENT OF CONGRESSWOMAN TSONGAS

Ms. TSONGAS. Thank you, Mr. Chairman. Thank you. I always enjoy the opportunity to hear other Members come and talk about their priorities as well. And thank you, Mr. Ranking Member. It is a pleasure to be here.

As a Member from Massachusetts, as you know, where we are home to remarkable military installations, research development facilities, a highly innovative private sector, I have long advocated for maintaining the Pentagon's focus on researching, developing, engineering, and producing the best equipment and platforms for our servicemembers. Our State is uniquely positioned to be helpful in that regard. And having just come from an Air Force Caucus today, where very much the focus is on maintaining a cutting edge and reinforcing this need.

These advancements not only ensure that our men and women in uniform have the most advanced lifesaving equipment possible, but they also help maintain America's technological edge over its adversaries.

Unfortunately, defense-related RDT&E has faced a disproportionately sharp cut in recent years beyond the mandates of the Budget Control Act, and I would like to be a strong voice for full funding for defense-wide RDT&E. And in that vein, I would like to highlight three important RDT&E-related efforts in this year's budget.

First, I want to recognize the work conducted by the Warfighter Technology Directorate, which empowers the United States Army by focusing on improving body armor, eye protection, and other protective systems for our soldiers. I think we have all seen the benefits of those investments.

I was discouraged to see that the fiscal year 2017 President's budget decreased funding for the Directorate by almost \$2 million as compared to the previous fiscal year, and I would ask that the committee direct an additional \$5 million above the President's budget.

Second, I would like to offer my support for the President's budget request for the Joint Surveillance Target Attack Radar System, or JSTARS, recap programs. As many on the committee know, the legacy JSTARS platform has provided unparalleled joint air command and control capabilities for over two decades, but the program is badly in need of modernization, and I would request full funding in this year's defense appropriations bill.

Third, I would like to commend the Department of Defense for expanding the Defense Innovation Unit-Experimental concept to the East Coast and for its plan to open a DIU-x extension in the Boston area this June. Doing so will enable the Department to collaborate more extensively with leading industry partners and world class universities in the greater Boston area. And in that vein, I support full funding in the President's budget for both the RDT&E and O&M funding lines to bring DIU-x to Boston.

Next, I would ask that the committee provide the Department with full funding for the DOD Sexual Assault Prevention and Re-

sponse Office at the level requested in the President's budget. Every servicemember deserves to know that the Department will not tolerate any form of sexual assault or harassment, and I ask that the SAPRO office be fully funded. It has been an important investment that the DOD has made, and I think has progress to show for it.

Additionally, I would like to advocate for \$25 million in funding for the Department's STARBASE program that provides STEM-based educational programs to some of the most socio-economically disadvantaged and underrepresented students across the country. The program seeks to educate the next generation of scientists, mathematicians, and engineers in our country and is worthy of our support. And I certainly hear from across all boards the shortage in those fields, and we would like to see our more disadvantaged students introduced to those fields and encouraged to enter them.

Finally, I respectfully request that you include not less than \$25 million for the recruitment and retention of women in the Afghanistan National Security Forces and the recruitment and training of female security personnel, as a large body of research has demonstrated meaningful inclusion of women in security forces can vastly enhance their operational effectiveness, and I would ask for your support.

With that, I thank you for the opportunity to appear before you today.

Mr. FRELINGHUYSEN. Well, thank you for being a strong supporter of national defense. And certainly as we give money to Afghanistan, we need to make sure that we empower women to be part of the solution, otherwise we are not going to have a solution.

And may I say the committee has hammered home the whole issue of sexual assault; totally unacceptable in any part of the military. I just want to assure you that the money that we put in there has obviously strong bipartisan acknowledgement and support. We are not going to tolerate that type of behavior.

And I have always viewed Massachusetts, maybe this is old fashioned, as being the Miracle Mile, and so you do a lot of things for national defense. I think the Northeast needs to be part of that equation. We want everyone looking out for national defense, but the Northeast plays its role, and Massachusetts has a very special place as well.

Ms. TSONGAS. Thank you for that. I appreciate your recognition of that.

Mr. FRELINGHUYSEN. Mr. Visclosky.

Mr. VISCLOSKY. Briefly, I would point out that the chairman a few weeks ago brought up the issue of sexual misconduct, harassment with the Department of the Army as well as others, so he is very cognizant of it.

I appreciate that you mentioned the Afghan National Security Forces and women's role. Mr. Moran, when he was on the subcommittee, was a very strong advocate, and appreciate you raising that today.

While you are here, I know Mr. Kennedy is going to talk about the WIN-T program, I assume you want to put in a good word as well?

Ms. TSONGAS. I am happy to do that.

Mr. FRELINGHUYSEN. You did.

Ms. TSONGAS. We will work with my colleague, Mr. Kennedy. Thank you very much.

Mr. FRELINGHUYSEN. Thank you for being here. We appreciate your testimony.

Ms. TSONGAS. Thank you.

[The written statement of Congresswoman Tsongas follows:]

Congresswoman Niki Tsongas (MA-03) Testimony before the Defense Appropriations Subcommittee

March 15, 2016

Good morning Chairman Frelinghuysen, Ranking Member Visclosky and Members of the Committee. I appreciate the opportunity to testify before you on my priorities for the Fiscal Year 2017 Defense Appropriations Bill.

I have long advocated for maintaining the Pentagon's focus on researching, developing, engineering and producing the best equipment and platforms for our servicemembers.

These advancements not only ensure that our men and women in uniform have the most advanced life-saving equipment possible, but they also help maintain America's technological edge over its adversaries. Unfortunately, defense-related RDT&E has faced a disproportionately sharp cut in recent years, beyond the mandates of the Budget Control Act, and I'd like to advocate for full funding for defense-wide RDT&E.

In particular, I'd like to highlight three important RDT&E-related efforts in this year's budget.

First, I want to recognize the work conducted by the Warfighter Technology Directorate which empowers the United States Army by focusing on improving body armor, eye protection and other protective systems for our Soldiers. I was discouraged to see that the FY17 President's Budget decreased funding for the Directorate by almost \$2 million as compared to the previous fiscal year and I would request that the Committee direct an additional \$5 million above the President's Budget.

Second, I'd like to offer my support for the President's Budget request for the Joint Surveillance Target Attack Radar System, or JSTARS, Recap program. As many on the Committee know, the legacy JSTARS platform has provided unparalleled joint air command and control capabilities for over two decades but the program is badly in need of modernization and I request full funding in this year's Defense Appropriations bill.

Third, I would like to commend the Department of Defense for expanding the Defense Innovation Unit-Experimental concept to the East Coast and for its plan to open a DIU-x extension in the Boston area this June. Doing so will enable the

Department to collaborate more extensively with leading industry partners and world class universities in the greater Boston area. I support full funding in the President's budget for both the RDT&E and O&M funding lines to bring DIUx to Boston.

Next, I request that the Committee provide the Department with full funding for the DOD Sexual Assault Prevention and Response Office at the level requested in the PB. Every servicemember deserves to know that the Department will not tolerate any form of sexual assault or harassment and I ask that the SAPRO office be fully funded.

Additionally, I'd like to advocate for \$25 million in funding for the Department's STARBASE program that provides STEM-based educational programs to some of the most socio-economically disadvantaged and under-represented students across the country. The program seeks to educate the next generation of scientists, mathematicians, and engineers in our country and deserves our support.

Finally, I respectfully request that you include not less than \$25 million for the recruitment and retention of women in the Afghanistan National Security Forces and the recruitment and training of female security personnel. As a large body of research has demonstrated, meaningful inclusion of women in security forces can vastly enhance their operational effectiveness and I ask for your support.

Mr. Chairman, Ranking Member Visclosky, Members of the Committee, I thank you for this opportunity.

Mr. FRELINGHUYSEN. The referenced Congressman, Joe Kennedy, from the great State of Massachusetts, welcome. Thank you for being with us.

SUMMARY STATEMENT OF CONGRESSMAN KENNEDY

Mr. KENNEDY. Mr. Chairman, thank you. I am grateful for the opportunity. And let me just say what an amazing job Congresswoman Tsongas does on this committee and has for years for Massachusetts and our companies and, most importantly, employees in Massachusetts that continue to contribute to our national defense. I am grateful for her leadership and her work and her tremendous support for the WIN-T program.

I also want to thank the ranking member, Mr. Visclosky, for your help and support and guidance as I have come to Congress to try to navigate some of these issues. And I very much appreciate your friendship with that.

I appreciate all of your unwavering commitment to the national security and for your continued oversight of the Department of Defense. As our Nation's soldiers, sailors, marines, and airmen defend the Nation and her citizens, this subcommittee works day and night to ensure that they are safer and more prepared than ever before.

My testimony today will focus on the importance of a critical modernization program for the U.S. Army called the Warfighter Information Network-Technical, also known as the WIN-T, and why it is critical that we increase the funding for the program for the fiscal year 2017 budget.

WIN-T provides soldiers with secure voice, video, and data where there is no existing communications infrastructure. Carrying the Army's battle command, intelligence, and operations communications, the WIN-T program is the Army's cornerstone mission command program. The WIN-T Increment 2 program builds on the capabilities of Increment 1 by making that mission command mobile.

In June of 2015, after years of rigorous testing, the Department of Defense approved WIN-T Increment 2 for full-rate production. More importantly, the system is deployed in combat with the 101st Airborne and the 10th Mountain Division and earned positive reviews for its innovative capability and unwavering reliability.

As our men and women in uniform arrived in West Africa to confront the deadly Ebola virus, the system provided crucial coordination and seamless communication to the United States.

Whether they are fighting our enemies, protecting our homeland, or addressing a global health crisis, our duty in Congress is to ensure that our soldiers are ready and equipped for any circumstance or challenge. The WIN-T Increment 2 does exactly that.

Despite its proven success and importance of the program, the Army's fiscal year 2017 budget request reflects a drastic reduction in funding. As recently as the 2016 budget request, the Army had planned to spend \$417 million on the WIN-T Increment 2 in fiscal year 2017. Yet the request for fiscal year 2017 is down to \$292 million, a troubling low for the program.

The Army's fiscal year 2017 request would procure only two division sets of WIN-T Increment 2 capability. The Army hopes to

bring this program to a total of 106 units, but at this point it has only delivered it to 14 brigades and 6 divisions.

Based on the request at this funding level, it will take the Army two or three decades to provide WIN-T Increment 2 across the Army. We cannot wait that long to give our servicemembers the tools they need as they put their lives on the line to protect us.

Today, I am requesting the increase of \$114 million for WIN-T Increment 2, an amount that will allow the Army to procure two additional full brigade sets of the program. This would simply maintain current funding levels.

The low fiscal year 2017 budget would also cause significant disruptions in the WIN-T production base and impact several suppliers across my district and my State.

This subcommittee has strongly supported the WIN-T Increment 2 program in the past. The fiscal year 2017 request for this program is insufficient and adversely impacts soldier readiness. I strongly urge you to add the \$114 million to the WIN-T Increment 2 program.

Mr. Chairman and Mr. Ranking Member, thank you very much for allowing me to testify on behalf of a program that I believe will make a difference for our troops in times of war and peace.

Mr. FRELINGHUYSEN. I want to thank you, Mr. Kennedy, for being with us this morning, being a strong advocate for WIN-T. I think communications are pretty essential. Obviously, we need to get it right. And we will be working very closely with you, and Mr. Visclosky and I will be working with you and other Members to make sure that in the final analysis this program has the means to do whatever it needs to do for our military.

Mr. VISCLOSKY. I appreciate your timely request, because we will be on a fast track. And I appreciate you are persistent about the request and you are committed to it. I appreciate it very much.

Mr. KENNEDY. I appreciate that. It is important to our military, it is important to our district. So I am grateful for your consideration.

[The written statement of Congressman Kennedy follows:]

Congressman Joseph P. Kennedy, III (MA-04)
March 15, 2016

Chairman Frelinghuysen, Ranking Member Visclosky, and members of the subcommittee, thank you for your unwavering commitment to our national security and for your continued oversight of the Department of Defense. As our nation's soldiers, sailors, Marines and airmen defend our nation and her citizens, this subcommittee works day and night to ensure they are safer and more prepared than ever before.

My testimony today will focus on the importance of a critical modernization program for the U.S. Army called the Warfighter Information Network-Tactical, also known as WIN-T, and why it is critical that we increase funding for the program in the Fiscal Year 2017 budget.

WIN-T provides soldiers with secure voice, video and data where there is no existing communications infrastructure. Carrying the Army's battle command, intelligence and operations communications, the WIN-T program is the Army's cornerstone mission command program. The WIN-T Increment 2 program builds on the capabilities of Increment 1 by making that mission command mobile.

In June 2015, after years of rigorous testing, the Department of Defense approved WIN-T Increment 2 for full-rate production. More importantly, the system has deployed in combat with the 101st Airborne Division and the 10th Mountain Division and earned positive reviews for its innovative capability and unwavering reliability. And as our men and women in uniform arrived in West Africa to confront the deadly Ebola virus, the system provided crucial coordination and seamless communication to the United States. Whether they are fighting our enemies, protecting our homeland or addressing a global public health crisis, our duty in Congress is to ensure our soldiers are ready and equipped for any circumstance or challenge – the WIN-T Increment 2 does exactly that.

Despite its proven success and the importance of the program, the Army's Fiscal Year 2017 budget request reflects a drastic reduction in funding. As recently as the FY2016 budget request, the Army had planned to spend \$417 million on WIN-T Increment 2 in Fiscal Year 2017. Yet the request for Fiscal Year 2017 is down to \$292 million, a troubling low for the program.

The Army's Fiscal Year 2017 request would procure only two division sets of WIN-T Increment 2 capability. The Army hopes to bring this program to a total of 106 units but at this point has only delivered it to 14 brigades and 6 divisions. Based on the requested funding level, it will take the Army two or three decades to provide WIN-T Increment 2 across the Army. We cannot wait that long to give our servicemembers the tools they need as they put their lives on the line to protect us.

Today I am requesting an increase of \$114 million for the WIN-T Increment 2 program, an amount that will allow the Army to procure two additional full brigade sets of the program. This would simply maintain current funding levels. The low Fiscal Year 2017 budget also would cause significant disruptions in the WIN-T production base and impact several suppliers across my district and state.

This subcommittee has strongly supported the WIN-T Increment 2 program in the past. The Fiscal Year 2017 request for the program is insufficient and adversely impacts soldier readiness. I strongly urge you to add \$114 million to the WIN-T Increment 2 program.

Thank you Mr. Chairman Ranking Member for allowing me to testify on behalf of a program that I believe will make a difference on for our troops in times of war and peace.

Mr. FRELINGHUYSEN. Thank you.

Mr. VISCLOSKY. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. I guess we want to thank everybody who came.

Mr. VISCLOSKY. Except me?

Mr. FRELINGHUYSEN. And Mr. Visclosky in particular.

And so we stand adjourned. Thank you very much.

[CLERK'S NOTE.—The following written testimony was submitted for the record:]

Members Day Testimony
Susan W. Brooks
Indiana-05

Thank you Mr. Chairman and Ranking Member Visclosky for the opportunity to testify today before the panel on priorities for the upcoming fiscal year. First, let me state that I do not envy the position that you have been put in today. Like many of you, I feel that the budget constraints placed on this subcommittee have limited our ability as a country to meet our long-term security objectives as well as our modern-day readiness requirements.

National security is and should be the first priority of the federal government, and as members of Congress, it is our duty to ensure that our constituents and our homeland are kept safe and secure. It is unfortunate that many programs worthy of funding will not receive the funding they very well deserve as you work to strike a balance between our fiscal realities and our national security needs.

I'm here today to ask that as you go through this painstaking exercise, you do not lose sight of the growing threat dangerous and deadly pathogens pose to the United States and to our citizens. As a result, I would ask that you adequately fund programs that prevent, prepare for and treat highly pathogenic diseases like Ebola, anthrax, ricin, smallpox and many others already considered threat agents by the Department of Defense.

The threat is real.

The threat is credible,

The threat is imminent.

Last year, a bipartisan Blue Ribbon study panel released their report on *A National Blueprint for Biodefense: Leadership and Major Reform Needed to Optimize Efforts*. Led by Senator Joe Lieberman and Governor Tom Ridge, the report is perhaps the most comprehensive documentation to date of the many threats to our national health and safety posed by biological threats, like those I mentioned just a moment ago, and the inadequacies that continue to leave the United States vulnerable to threats from nature and terrorists alike. Conclusions in the report are

the result of a year-long program of high-level panels, public meetings, targeted interviews and extensive research.

As a member of the House Energy and Commerce Committee, I have focused primarily on items in the report dealing with Health and Human Service's Biomedical Advanced Research and Development Authority (BARDA) and the Office of the Assistant Secretary for Preparedness and Response (ASPR). Fundamentally changing how we stockpile vaccines and countermeasures, how we incentivize the development of these products, and how we deploy them in times of crises are critical components to our biodefense infrastructure and systems that I have been studying and working to improve through my work on the Energy and Commerce Committee.

However, the very nature of the threat spans the jurisdiction of many committees and federal agencies, including the Department of Defense (DOD). DOD plays a large role in contributing bio-detection tools, medical countermeasures, and protection and decontamination technologies to our national biodefense efforts. The Blue Ribbon Study panel recognized the unique role that DOD plays in the biodefense enterprise and yet notes a lack of funding for some of the most significant programs vital to successfully protecting against biological threats. As such, I would like to draw your attention specifically to recommendations that fall within your committee's jurisdiction.

The report specifically signals out the Intelligence Community (IC) efforts to address a biological threat. The report found that the IC recognizes the serious and extensive threats that dangerous and deadly pathogens pose, but is "unable to adequately collect and analyze intelligence due to insufficient resource allocation." This is a serious gap that demands immediate attention from this Committee. The Committee should look to prioritize funding within the Intelligence Community to ensure that they have the capabilities needed to sufficiently analyze the threat and that their analysis focuses on countries and non-state actors as they relate to biological weapons programs and activities.

In addition to intelligence gaps, the report found that DOD assets and force readiness overseas and within the homeland could be dangerously compromised by a major biological event. Last month, Kenneth L. Wainstein and Gerald W. Parker

of the Blue Ribbon Panel reiterated this point before the House Armed Services Committee. They specifically warned of the the risk to our warfighters, who deploy wearing over-garments that may not fully protect against biological agents and use detectors that do not function well on the battlefield. Therefore, I ask you to make sure that the upcoming budget invests in the protection, detection and surveillance brave men and women need to execute their missions in biologically contaminated environments.

Finally, I would like to draw your attention to the Global Emerging and Infectious Surveillance (GEIS) program within the Armed Forces Health Surveillance Branch. This is one of bright spots in the biodefense enterprise that supports and strengthens surveillance among deployed U.S. military personnel while assisting in diagnosis and treatment at military treatment facilities. GEIS works with 14 DOD research laboratories which support endemic and emerging disease surveillance and response missions in health and defense. This not only allows us to monitor overseas threats before they come to our shores, but since their findings are routinely shared with other U.S. government agencies their activities bolster our own public health prevention and treatment programs as well. While much has been accomplished, much more can be done. Adequately funding their activities could lead to better incorporation of animal and environmental data as well as a larger expansion of information sharing that will benefit our American soldiers and the American public alike.

As you continue to review programs and funding levels, I ask you to examine other DOD components that have contributed significantly to our nation's preparedness, but aren't necessarily singled out in this report. They include, but are not limited to, the Defense Advanced Research Projects Agency's (DARPA) Biological Technologies Office (BTO) and the Defense Threat Reduction Agency (DTRA) who work to research, develop and support efforts aimed at developing infectious pathogen treatments and preventive measures.

Unfortunately, the Zika crisis is only the most recent in a series of deadly outbreaks that pose serious threats to the homeland. While DOD cannot and should not be solely responsible for our biodefense infrastructure and systems, their expertise and experience in this realm is crucial to the sound functioning of the entire biodefense enterprise. As you put together your mark for this bill, I hope that

you see this threat as seriously as I do and deploy the needed resources to keep Americans safe.

Thank you Mr. Chairman, and I yield back.

House Appropriations Defense Subcommittee Member Testimony Submitted by Congressman Mark Pocan (WI-02)

Thank you for inviting me today, Chairman Frelinghuysen, Ranking Member Visclosky. I'm here today to talk about five of my priorities that I would like to see the subcommittee adopt, and I am grateful to have the opportunity to do so.

I'd like to see maintained the U.S. Navy's historical and mutually beneficial relationship with the domestic shipbuilding industrial base, specifically the requirement that critical shipboard components on our Navy's sealift and auxiliary ships must be manufactured in the U.S., a continuation of policies that have served U.S. national security and the public interest for almost 25 years. I applaud this committee for ensuring the continuation of this policy in its end-of-year work that passed the House this past December, and hope that it continues to support this successful policy.

Therefore, I'd ask this Committee to approve the President's funding request of \$73M for AP of equipment and materials for the FY2018 T-AO(X), and to limit funding appropriated in FY2017 for procurement, advanced procurement, or Research and Development for the T-AO(X) or other sealift or auxiliary ships so as to require U.S. manufacture of critical components.

The national security justification for building ships in the U.S. is clear—whether it relates to sensitive nuclear technology, to security of the supply chain, or to maintenance of critical capabilities and skills in our industrial base. While statutory requirements are in place to ensure ships procured by the U.S. government are built in the U.S., there are no permanent statutory requirements that critical shipboard components must be U.S. manufactured. That same justification must apply to critical ship systems to maintain the integrity of the entire shipbuilding industrial base.

Next, I request your support in the upcoming Committee consideration of the Fiscal Year 2017 Defense Appropriations bill to provide additional funding for Printed Electronics, Neutron Radiography, Energetics, and Life Cycle Pilot Process- Manufacturing Technology. Significant advances in bridging the Additive Manufacturing technology gaps have been made over the past several years, due in large part to the Army's program, for which I am appreciative of the Committee's efforts, but continued investment is essential to maintaining the mobility, reliability, and readiness demanded by the Army.

Specifically, I am requesting that you include an additional \$24 million in this year's bill, compared to the President's request. There is a vast array of munitions and weapon systems both fielded and in development that are either not inspected nondestructively or are difficult to inspect using current inspection methods leaving our soldiers susceptible to traumatic brain injury or death due to pre-detonated ammunition. The latest developments can bridge the gap so that the stockpile continues to meet established performance, explosives safety, readiness, and reliability requirements to ensure safe and reliable ammunition and ammunition components. Further, integrating Energetics with Printed Electronics will provide more capabilities to be added to current and future armaments for added lethality and increased shelf life.

Further, I request your support and leadership in the upcoming Committee consideration of the FY 2017 Defense Appropriations Bill to provide additional funding for Power Generation and Storage Research with an emphasis on research and development to improve battery safety for Navy ships and undersea vehicles – an area of strong need.

Development and deployment of lithium-ion energy storage systems with up to three times the performance capability of other battery products are critical to current and future Navy missions and systems, such as the Integrated Flight Through Power (IFTP) System being developed for use on the DDG-1000. However, concerns about the safety of Li-ion batteries, particularly thermal runaway failures, have hindered or even halted their widespread operational adoption.

I therefore support dedicated funding for battery safety research in FY '17 and out years under Navy Research, Development, Test and Evaluation for investments in safer battery materials and battery systems to address thermal runaway. The use of flammable electrolytes and thermal runaway in Li-ion batteries are highlighted by the U.S. Navy Battery Safety Program as major disadvantages for Li-ion energy storage systems. I believe additional research can help address and overcome these issues and help improve the safety of Li-ion energy storage systems – systems that show great promise and potential for the Navy and other services and applications.

Since the discovery of penicillin in the 1940s, antibiotics have been viewed as ‘miracle drugs’. However, with each passing decade, bacteria resistant to multiple antibiotics have become increasingly common especially in hospitals and other care facilities. Today, more people die in the United States from hospital-associated bacterial infections than from AIDS, breast cancer, and automobile accidents combined. The World Health Organization recently reported the following:

‘The problem is so serious that it threatens the achievements of modern medicine. A post-antibiotic era—in which common infections and minor injuries can kill—is a very real possibility.’

In 2014, the President’s Council of Advisors on Science and Technology published its Report to the President on Combating Antibiotic Resistance in which they concluded the following:

‘A particularly important target is Gram negative bacteria, which account for 9 of the 18 most important antibiotic-resistant or –associated microbial threats in the United States. Unfortunately, none of the antibiotics that have been reviewed by the FDA during the past 5 years have activity against this critical group. Moreover, a recent review noted with dismay the lack of any drugs in the current global development pipeline with activity against the full spectrum of resistant Gram-negative bacteria.’

Given the severity, I’m requesting funding for research into the treatment of Gram-negative bacterial infections, including infections of burns and other traumatic wounds. Of particular interest to the Department of Defense is the Gram negative bacterium *Acinetobacter baumannii*, colloquially called ‘Iraqibacter’ do to its seemingly sudden emergence during the Iraq war. *A. baumannii* is extremely resistant to antibiotics and can survive on artificial surfaces for several weeks. A tragic and all too common outcome of an *A. baumannii* infection in a wounded

warfighter is amputation or death. Colonized warfighters have carried *A. baumannii* back to civilian hospitals in the U.S. where it has become a major concern. Recent wars have resulted in many burn injuries from improvised explosive devices (IEDs) and other incendiary weapons. Burn and other traumatic wounds, in both warfighters and civilians, are commonly infected with antibiotic resistant and difficult to treat Gram negative bacteria including *A. baumannii*, *Pseudomonas aeruginosa*, and *Klebsiella pneumonia*.

Lastly, I'm concerned that the current Air Force acquisition effort to replace the Russian RD-180 propulsion system on the Atlas V launch vehicle will not provide the United States with the most efficient, effective, and competitive solution options. Specifically, I believe that the Nation's long-term interests are better addressed by logical and efficient replacement of both the main booster and upper stage engines with modern American propulsion technologies, thereby, solving longstanding national security priorities. Accordingly, I believe that pursuing new, and maturing available U.S. rocket engine technologies is in the best long-term interests of the nation. Therefore, I'm requesting language requiring the Secretary of the Air Force to report back to the Committee, within 120 days of enactment of the Defense Appropriations Act, on how new and emerging domestic engine technologies, especially those derived from past U.S. government investments in small business, can be considered, matured and employed, ultimately providing America with an improved propulsion industrial base and sustained competition.

**Testimony to the House Defense Appropriations Subcommittee (HACD)
Representative Jaime Herrera Beutler (R-WA)
March 15, 2016**

Chairman Frelinghuysen, Ranking Member Visclosky, and Members of the Subcommittee. I am proud to be in full support of a critical warfighting capability for the Marine Corps and Navy, as well as in support of the hard working men and women of Washington's 3rd District that make that capability possible.

The RQ-21A Blackjack program is an unmanned system designed for the expeditionary missions of the Marine Corps. Small and lightweight enough to travel with Marines through contested battle spaces, it is still powerful and technologically advanced to be the "eye in the sky" for immediate, tactical level decision making. Blackjack was designed to launch and recover without a runway, and also to evolve its sensors and payloads to different missions that the Marine Corps require. These flexible characteristics also convinced the United States Navy to procure the RQ-21A for immediate warfighting operations in the Overseas Contingency Operations (OCO) account, both last year and this year.

After completing the testing period last year, the Marine Corps announced that Blackjack achieved Initial Operational Capability (IOC) in December. This announcement confirms that the program is ready to deploy with a Marine Expeditionary Unit, and should occur in the summer of this year. The Blackjack unmanned system will immediately begin providing better situational awareness for on-the-ground Marines than they have previously had access to.

The Blackjack program is designed and manufactured in Bingen, Washington. I've been to the workplace where hundreds of determined men and women are supporting the Nation's defense by providing a world-class program to the Marine Corps and Navy. They understand that

the circumstances are serious, and they work to drive capabilities into the platform, and costs out of the program. I'm proud of the work that they are doing for the Department of Defense.

As you consider the Fiscal Year 2017, I ask that you please fully fund the RQ-21A program at the President's Budget levels. The procurement of 8 systems between the Marine Corps and Navy will help stabilize production and deliver systems to the warfighter on schedule.

As a Member of the Appropriations Committee, I look forward to working with you on the annual defense bill to provide our warfighters with the resources they need to protect our Nation.

STATEMENT OF U.S. REP. ROB BISHOP (UT-01)
House Subcommittee on Defense Appropriations
March 14, 2016

Chairman Frelinghuysen and Ranking Member Visclosky:

Thank you for this opportunity to testify regarding the FY2017 Defense budget.

I wish to draw the Subcommittee's attention to the Navy's Tomahawk Missile program.

The Administration, once again, has unwisely submitted a budget proposal which calls for outright termination of the Tomahawk missile in FY2018, with funding in FY2017 proposed to be used for termination costs as well as shifting some of the funding for a still experimental follow-on missile which is many years from production.

The Tomahawk missile, in all of its variants, has been a hugely successful program and its capabilities have been proven time and again in dozens of real-life contingencies. The Tomahawk weapon system is highly regarded by defense experts and its termination has been widely panned as shocking and myopic. Its termination will leave critical capability gaps, decimate the defense industrial base, and weaken US Naval superiority.

For example, the Tomahawk was used over 200 times during the U.S. 2011 military operations in Libya. Tomahawk has often been the weapon of choice in the beginning hours of any major conflict.

For the past two years, Congress has taken steps to ensure that the Tomahawk Missile program was funded at a minimum production sustain rate (MSR) of 196 missiles per year.

Unless Congress once again takes steps to ensure the MSR, the private defense industrial base, which produces and sustains these systems, is at high risk of being disbanded. Even if a future advanced missile is approved by the Department of Defense for production, most experts believe that this is at least 10 years into the future at the earliest. In the meantime, not only does cancellation of Tomahawk in FY18 lead to a quick depletion in U.S. inventories, but we will have sacrificed our nation's ability to replenish those inventories leading to a crucial and dangerous capability gap.

The private defense industrial base, including its highly-specialized and experienced engineering and design teams, are irreplaceable and are crucial to the success of Tomahawk. These highly experienced and specialized technicians will be disbanded unless \$76 million in funding is directed by the Congress to support the MSR of 196 missiles per year. This MSR has been established and verified time and again as being valid and is beyond dispute.

In my view, it is irresponsible for the Department of the Navy, the Department of Defense, and the Administration, to continue to send the Congress such a clearly wrong-headed and dangerous proposal.

I respectfully request that the Defense Appropriations Subcommittee consider these issues and work to ensure that the MSR of 196 Tomahawk missiles is provided for in FY2017, FY2018 and beyond to ensure that there are no capability or defense industrial base gaps for any follow-on advanced replacement missile.

Further, I request that the Subcommittee emphasize in its report to the Department of Defense and the Administration that they must ensure sufficient funding for the MSR of Tomahawk in future years' budgets until such time as it can assure the Congress of a smooth transition into any advanced follow-on replacement missile system.

Thank you for considering my views.

Congressman Peter T. King (NY-2)
Testimony before the
House Appropriations Committee
Subcommittee on Defense
March 15, 2016

A few weeks ago, over 100 advocates from around the country came to Washington representing the 2.8 million men currently living with prostate cancer in the United States. They came to talk to their representatives about the important work the Department of Defense's Prostate Cancer Research Program (PCRP) is doing on behalf of these men and their families. I support their efforts and hope that the Committee can provide \$90 million for the PCRP in the Fiscal Year 2017 Defense Appropriations bill.

In 2016, over 180,000 men will be diagnosed with prostate cancer and more than 26,000 will die. Veterans and active duty military servicemen have higher rates of prostate cancer than the general population. For reasons we do not know, African-American men have almost twice the incidence rate of prostate cancer and over double the death rate. All told, 1 in 7 men will be diagnosed with this deadly disease in their lifetimes. The vast majority of them will survive if we catch their cancer early. However, we have very few treatments for late-stage disease and cannot cure men with late stage disease. The PCRP is one of the key tools we have to help fight fatal diagnoses. In fact, the PCRP has supported 3 new treatments for late-stage disease that have come to market in the last 5 years – representing 1/3 of all treatments on the market. The PCRP is focused on developing effective treatments and addressing mechanisms of resistance for men with high risk or metastatic prostate cancer.

The Committee has supported the PCRP program since its creation in 1996 and funded it at the \$80 million level since FY2006. Eleven years of level funding has meant that many worthy proposals have not been able to be funded, and due to inflation, the program's purchasing

power has diminished. Yet we know that the science has never been more promising. Prostate Cancer diagnosis and treatment suffers from important knowledge gaps that do not exist in other hormone-driven cancers with similar disease-burdens. The PSA blood test, commonly used to screen for prostate cancer, is burdened by false-positives and the follow-on diagnostic methods, digital rectal exams and biopsies, also give an incomplete picture of cancer. Additional work in imaging techniques is being undertaken by various prostate cancer researchers but more work is needed to insure that these methods can be used in a clinical setting to accurately capture disease stage and progression. The PCRP prioritizes research that will develop better tools for early detection of clinically relevant disease. The program is also placing emphasis on tools to help us distinguish aggressive from indolent disease in men newly diagnosed with prostate cancer. Such a breakthrough would save millions of men from unnecessary treatment and enable providers to better target efforts on life-threatening disease. PCRP funded research includes work on biomarker development, genetics, mechanisms of resistance, and tumor biology.

In light of all of this opportunity, over 65 of our colleagues have joined me in urging your support for funding the PCRP program at \$90 million. This is the same funding level that the House has passed in its version of the bill in recent years. As you begin the hard work of drafting the FY2017 bill, it is my hope that you will adopt that funding level and help the PCRP, and the millions of men whose lives are impacted by that research, capitalize on this promising work.

Thank you for your time and your support of this important program.

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MIKE QUIGLEY
CONGRESS OF THE UNITED STATES
5TH DISTRICT, ILLINOIS

COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEES:
FINANCIAL SERVICES AND GENERAL GOVERNMENT
TRANSPORTATION, HOUSING AND URBAN DEVELOPMENT,
AND RELATED AGENCIES
PERMANENT SELECT COMMITTEE
ON INTELLIGENCE
SUBCOMMITTEES:
EMERGING THREATS, RANKING MEMBER
NATIONAL SECURITY AGENCY AND CYBERSECURITY

STATEMENT OF U.S. REPRESENTATIVE MIKE QUIGLEY (IL-05)

before the

SUBCOMMITTEE ON DEPARTMENT OF DEFENSE

COMMITTEE ON APPROPRIATIONS

UNITED STATES HOUSE OF REPRESENTATIVES

on

March 15, 2016

Dear Chairman Frelinghuysen, Ranking Member Visclosky and Members of the subcommittee:

Members of the House Defense Appropriations Subcommittee, I thank you for the chance to testify today about the United States Navy's tactical aviation challenge and the F/A-18. I believe that it is important to add additional aircraft to the Fiscal Year 2017 budget to support the Navy warfighter.

Over the last two years, the leaders at the highest levels of the Navy have testified before Congress regarding concerns with the current state of its tactical aviation. Specifically, there is a shortfall in the number of aircraft needed to properly train and equip our men and women flying off of aircraft carriers. Last year the Chief of Naval Operations (CNO) stated that the shortfall consisted of two to three squadrons' worth of aircraft, and this year the new CNO testified that the problem had only been amplified over the course of the year. I believe that it is important to

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address the shortfall now while it is relatively manageable instead of waiting until the deficit becomes too large.

The best way to address the strike fighter shortfall is to add F/A-18E/F Super Hornets to the Fiscal Year 2017 budget. The request this year only funds two aircraft -- all contained in the Overseas Contingency Operations (OCO) account. The budget documents indicate the Navy's desire to purchase more Super Hornets in Fiscal Year 2018, and perhaps beyond, but there is no certainty that those aircraft will make it through a change in the Administration or Navy leadership.

Even more compelling, the Secretary of the Navy submitted to Congress an unfunded requirement of 14 additional Super Hornets. This request was his number one priority on the unfunded list, highlighting the real warfighting need for more aircraft. Unfunded requirement lists shouldn't be relief valves for tough budget decisions, but the Navy has suggested that without additional aircraft in Fiscal Year 2017, the manufacturing line that the F/A-18 is produced on may face a production gap, or worse, closure.

As a Member of the Appropriations Committee, I know that you have difficult decisions in front of you before the markup. We are all forced to make tough budget choices, but that's what makes this Committee work so fulfilling. In your case, especially, the decisions you make can have real consequences for our men and women who wear the uniform. I have tremendous respect for that, and for the work that you do.

It is my hope that as you put together the Fiscal Year 2017 budget, you address the Navy's unfunded requirement of 14 Super Hornets. It is important to the warfighter, and it is important to my home State of Illinois. I look forward to working with you.

Thank you.

DAVID LOEBSACK
2ND DISTRICT, IOWA

COMMITTEE ON
ENERGY AND COMMERCE

Congress of the United States
House of Representatives
Washington, DC 20515-1502

March 14, 2016

Chairman Rodney Frelinghuysen
House Appropriations Committee, Defense Subcommittee
Capitol, Room H-405
Washington DC 20515-6018

Cong. Pete Visclosky
House Appropriations Committee, Defense Subcommittee
Capitol, Room H-405
Washington DC 20515-6018

Dear Mr. Chairman:

In response to your recent invitation to Members of Congress to share their defense priorities with the Committee on Tuesday March 15th, I am respectfully submitting the following requests for consideration.

The Iowa Army Ammunition Plant in my district is the only gov't-owned, company-operated – or "GOCO" -- munitions plant in the US. Because IAAAP is owned by the Army, and operated by a private sector company, any upgrades or maintenance must be funded by the Army. Unfortunately, that maintenance has not had the full attention it deserves over the last several years.

There are 2 such modernization projects that IAAAP desperately needs.

- 1.) Modern Ignition Cartridge Assembly Line – if funded at \$5M, this project would support the Army's need for a more efficient and modern ignition cartridge assembly line for the 60mm/81mm/120mm family of munitions, and would help lower costs – in particular labor costs – create new jobs, and improve critical defect detection & prevention.
- 2.) Modernization of the Melt Pour Facility – if funded at \$35M, this project would increase operational efficiencies, lower costs to the Army & taxpayer, and increase jobs.

It is my hope that the Defense Subcommittee will respectfully consider these much-needed projects that will serve the needs of the war fighter, the DoD customer, and ultimately the taxpayer. In the event that funds are identified, I urge the committee to support these projects for the Iowa Army Ammunition Plant.

Thank you.

Respectfully,



Congressman Dave Loebsack (IA-02)

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Rep. Dan Newhouse (R-WA)

Written Testimony for HACD Member's Day – March 15, 2016

Mr. Chairman and Mr. Ranking Member, I offer my strong support for the Marine Corps and the Navy's efforts to procure and deploy the RQ-21A Blackjack. The program supports the warfighter, and is produced by the regional aerospace industry in Washington State.

As you know, the Marine Corps and Navy have a demand for smaller unmanned capability that each service can mobilize quickly for immediate decision-making in the theater of war. According to the Navy's own budget document, the "Blackjack" provides "persistent maritime and land-based tactical Intelligence, Surveillance and Reconnaissance/Target Acquisition support for tactical level maneuver decisions and unit level force defense..." That requirement may be confusing, but it is critical to our Marines on the ground and sailors at sea. The RQ-21A system will provide real-time situational awareness through state of the art sensor and imaging technology, beaming video and images immediately back to the users in combat theater. The unmanned vehicle launched, operated and recovered all from a small system, and it travels with Marine Expeditionary Units as they move through contested areas, or on ships as the Navy navigates coastal areas. In all cases, it provides real-time mapping to make the best decisions without having to wait for information.

I was pleased to see that the Marine Corps announced that Blackjack achieved significant milestones in testing last year. In December 2015, the Marine Corps declared RQ-21A suitable for "Initial Operational Capability (IOC)" – or ready to deploy with a Marine Expeditionary Unit. This next step should occur later in the summer.

There is another important aspect of the Blackjack program that I would like to mention, and it is the hundreds of hard-working men and women that support the program that live in my region of the country. Over the past decade, a vibrant aerospace industry has developed on both sides of the Columbia River gorge along the Washington and Oregon border. This industry has innovated some of the most complex unmanned systems for both commercial and defense applications. Many of my constituents support the RQ-21A program, and they are proud to be working on technology that has a real positive effect on the warfighter by keeping them aware of their surroundings, and ultimately keeping them safe.

As you consider Fiscal Year (FY) 2017 appropriations, I ask that you please fully fund the RQ-21A program at the levels requested in President's FY2017 Budget. The procurement of 8 systems between the Marine Corps and Navy will help stabilize production, and deliver, systems to the warfighter on schedule.

I look forward to working with you on the defense appropriations bill this year to provide our warfighters with the resources they need to protect our Nation.

Sincerely,

Dan Newhouse
Member of Congress

Testimony Before the Defense Appropriations Subcommittee
Congressman David B. McKinley, P.E. (WV-01)
March 10, 2016

As you begin work on the FY2017 Defense Appropriations Act, I write to ask for your support for the inclusion of report language addressing the domestic solid rocket motor (SRM) industrial base.

Rocket motors used in tactical missiles are high-performance propulsion systems that use solid propellant as its energetic source. By classification, tactical solid rocket motors (SRM) are less than 40 inches in diameter and are used in missiles that are launched from the ground, sea and air. As you may be aware, limited new tactical missile programs, coupled with few planned upgrades to existing tactical missile programs, have placed the domestic industrial base of SRMs at risk, a situation made worse by outsourcing rocket motor production to foreign suppliers. As a result, since the mid-1980's, the number of US domestic producers of tactical solid rocket motors has declined from five suppliers to two.

Existence of a struggling, at-risk SRM industrial base has been highlighted in government reports for more than a decade. Furthermore, in the Department of Defense's (DoD) 2014 Manufacturing and Industrial Base Policy (MIBP) report entitled, "Need for Industrial Base Rebalance in Pacific Pivot," SRMs were again cited as an area of concern stating that budget reductions resulted in industrial base concerns for both design and production. In the spring of 2015, I testified before the House Armed Services Committee on this matter and, since then, the situation has only worsened. In October 2015, the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics submitted a report to Congress that stated, "declining DoD missile development and procurement funding has allowed [the SRM industrial base] to atrophy and become fragile." As this Committee knows well, the October 2015 report is simply the latest in a string of clarion reports dating over a decade that warn of a critical military capability that has declined and is under duress. Normally, one would think that if the Department of Defense identified a military weakness that has a direct operational impact, action would be taken and

taken quickly. Unfortunately, little or no measurable steps have been taken – allowing the situation to degrade further.

Increased support of a shrinking SRM industrial base is warranted given the limited number of new and planned upgrade missile programs that are identified in the out-year budget. To that end, I believe the time has come for the Defense Appropriations Subcommittee to clearly articulate the critical nature of the issues facing the SRM industrial base by including the following language in its bill report:

The Committee received the Department's October 2015 assessment of the industrial base for tactical solid rocket motors (SRM) which stated that the health of the US industrial base is fragile and is being allowed to atrophy, and expressed concern for the health, stability and capabilities of the domestic SRM producers. This latest report follows previous Under Secretary of Defense for Acquisition Technology & Logistics Annual Industrial Capabilities Reports which, for nearly a decade, have repeatedly identified the tactical missile SRM industrial base as at-risk and vulnerable. The Committee is concerned that actions taken by the Department to address this worsening condition have been insufficient and ineffectual. Most disturbing is the Department's seemingly illogical conclusion that pursuit of off-shore suppliers is an antidote to the fragile domestic industrial base. The Committee seeks a more coherent plan to address the SRM industrial base and retains the option to take action in the absence of constructive recommendations from the Department.

Thank you for the consideration of my request and the opportunity to testify.

THURSDAY, MARCH 17, 2016.

UNITED STATES CENTRAL COMMAND

WITNESS

GENERAL LLOYD J. AUSTIN, III, COMMANDER, UNITED STATES CENTRAL COMMAND

OPENING STATEMENT OF CHAIRMAN FRELINGHUYSEN

Mr. FRELINGHUYSEN. Good morning. The meeting will come to order. I would like to recognize the ranking member 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.

Good morning. General Lloyd J. Austin, III, is the Commander of U.S. Central Command, a West Point graduate with extensive combat experience, including service in Operation Iraqi Freedom and Enduring Freedom and Operation New Dawn.

He has commanded at every level, previously served as chief of staff of the U.S. Central Command and vice chief of staff of the United States Army. This is General Austin's fourth and final appearance before this committee as the Central Command Commander. In coming weeks, General Austin will begin a well-deserved retirement. On all of our behalf, we thank you and your family for their remarkable dedication to our Nation. We are so proud of you and all those that you represent and have represented for decades.

Once again, General Austin, welcome back to the committee.

At this point, I would like to yield to my ranking member, Mr. Visclosky, for any comments he may wish to make.

Mr. VISCLOSKY. Thank you, Mr. Chair.

I appreciate your holding the hearing.

General, for your presence today, I just would add my gratitude for your life of dedication to our country and to leaving the world better than you found it. I do deeply appreciate that and your candor and our relationship over the years and do wish you well.

Thank you very much, Mr. Chairman.

Mr. FRELINGHUYSEN. Mr. Visclosky.

The big chairman, Mr. Chairman Hal Rogers, for any remarks he may wish to make.

Mr. ROGERS. Thank you, Mr. Chairman.

And thank you, General Austin, for taking the time to be here today. Welcome to the Defense Subcommittee. I want to congratulate you as well on your upcoming retirement. You have served our Nation admirably and honorably over the course of your 40-year ca-

reer, most recently as the vice chief of staff of the Army and, before that, as commander of U.S. forces in Iraq.

You have shown true dedication and leadership over the last 3 years in your current post as CENTCOM Commander, and we wish you all the best in your future endeavors.

I yield back, Mr. Chairman.

Mr. FRELINGHUYSEN. Thank you, Mr. Chairman.

General Austin, we welcome your testimony. Your entire testimony will be put into the record. And if you will proceed, that would be great. Thank you.

[The written statement of General Austin follows:]

STATEMENT OF
GENERAL LLOYD J. AUSTIN III
COMMANDER
U.S. CENTRAL COMMAND
BEFORE THE HOUSE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON DEFENSE
ON
THE POSTURE OF U.S. CENTRAL COMMAND
17 MARCH 2016

Introduction: This is an extraordinarily challenging time throughout the Central Region. We see an almost unprecedented level of activity, turmoil, and conflict among regional state and non-state actors, along with increasing involvement by external state actors including Russia and China. Many of the challenges facing the region, most notably the threat posed by the violent extremist organization (VEO), the Islamic State of Iraq and the Levant (ISIL), transcend borders. They are symptoms of a wider set of challenges plaguing that strategically-important part of the world. The most fundamental challenge remains the heightened instability that is fueled, in large part, by certain root causes or “underlying currents.” The prevailing current is the ethno-sectarian competition that exists between groups and chiefly among Shia and Sunni and Arab and Persian populations.

The regional security environment is incredibly complex. The sharp decline in global oil prices is greatly impacting those countries that are highly-dependent upon oil revenues. The economic uncertainty is adding to the instability, while limiting partner nations’ purchasing power. The region continues to struggle with a large-scale humanitarian crisis caused primarily by the wars in Syria and Yemen. The situation is further challenged by malign actors and poisonous ideas that serve to radicalize individuals and generate movements that threaten our core national interests and the interests of partner nations. Adding to this challenge, the world today is more interconnected than ever before. The information space is borderless and physical borders are less clearly defined, if not absent altogether. As a result, events that occur in one location can and often do affect other parts of the globe. Thus, we have a vested interest in helping our regional partners to address existing challenges and, to the extent possible, prevent potential problems from developing further.

We have an important role to play in providing for the security of the Central Region. That said,

we also recognize that we cannot solve every challenge through direct U.S. military action alone. While supporting and enabling the efforts of partner nations, we must help them build additional needed military capacity. The goal is to empower them to provide for the security of their sovereign spaces and confront regional security challenges such as those posed by Iran. We must also encourage our partners to actively counter radical ideologies and address the “underlying currents” that contribute in large part to the instability in the region. American efforts, including the U.S. military, can buy time and we may encourage others to do what is necessary. However, we cannot do it for them. Only the people of the region can bring about the needed changes.

Today, despite the many challenges that exist in U.S. Central Command’s (USCENTCOM) area of responsibility (AOR), we do see progress being made in a number of areas. We are hurting our adversaries, while helping our partners assume a larger role in providing for the security of the region. Their conventional military capabilities far outreach those of any possible hostile adversary, and our core partnerships remain strong. At the same time, while weaker and under threat, political institutions throughout the region, including in Iraq and Afghanistan, are withstanding pressure from extremist groups and outside actors. Moreover, we have 84,000 U.S. troops in the AOR with an unmatched ability to provide rapid reinforcement in response to unforeseen contingencies. They are the best and most capable military forces in the world. Their presence and many contributions are making a significant difference in what is a very important part of the world. The Central Region is an area of great consequence and one that merits our continued, strong investment. We will need to remain present, properly postured, and actively engaged there for the foreseeable future.

A Retrospective Look: This past year, we worked through a number of tough challenges

throughout the Central Region. Five specific areas required a larger share of our energy and attention. Foremost among them is Operation INHERENT RESOLVE in Iraq and Syria. American military action, coupled with our leadership of the 66-member international coalition, has achieved substantial progress in combatting ISIL. We have degraded the organization, which was Phase I of the military campaign, and we are well along in Phase II operations which focus on dismantling ISIL. The forging of a whole-of-government effort has maximized the effectiveness of military and diplomatic actions. At the same time, we are providing support to the Gulf Cooperation Council (GCC)-led Coalition in Yemen. Additionally, we maintain pressure on extremist networks and actively pursue terrorists in the region on a daily basis. Next, we continue to support operations in Afghanistan where we have transitioned to a mission focused on helping the Afghans to build needed capability and fortify their security forces, while we continue to take direct action against Al Qaeda (AQ), ISIL – Khorasan Group (ISIL-KP), and others that present a threat to U.S. and coalition forces. Finally, we keep a close eye on Iran. We are hopeful that the controls put in place as a result of the Joint Comprehensive Plan of Action (JCPOA) agreement will discourage Iran from pursuing a nuclear weapon. Regardless, Iran maintains hegemonic ambitions and will continue to pose a threat to the region through the employment of various anti-access and area denial (A2/AD) capabilities, theater ballistic missile and cyber capabilities, aggressive maritime activities, and the destabilizing activities of the Iranian Threat Network (ITN) and its Iranian Revolutionary Guard Corps-Qods Forces (IRGC-QF), and other proxies operating in the region.

The command's primary focus this past year has been the ongoing fight against transnational VEOs, and namely ISIL or what is referred to by many in the region as "Daesh." While the group's military capabilities have been degraded in Iraq and Syria, which represents the center of ISIL's

self-proclaimed Caliphate, the group remains a legitimate terrorist threat in both countries and has expanded its reach to other parts of the globe, including Egypt, Afghanistan-Pakistan, Yemen, Libya, West Africa, and parts of the Pacific. ISIL's presence undermines nation-states while driving competition for leadership among global jihadists. This competition has led to increased activity by ISIL and AQ which, although its capability is degraded, remains relevant and active throughout the region. ISIL's insidious activities perpetuate sectarian conflict and, if not effectively addressed, could serve to spark a broader regional sectarian war. For these and a host of other reasons, ISIL poses the most immediate security threat to our interests and the interests of our partners and allies. It must be – *and it will be* – defeated.

Over the past year we have seen a trend emerge as countries have begun to take more seriously the threat from transnational and trans-regional VEOs. Many of our regional partners historically did not prioritize the threat from VEOs. They were less concerned that these organizations would attack them at home. However, ISIL has changed that paradigm. Countries, including Saudi Arabia and Egypt, now are dealing with a very real threat from Sunni extremists that they did not encounter in the past. They recognize that they can no longer afford to dismiss these threats. In the same way, countries outside of the Central Region, particularly throughout Europe and Turkey, have experienced a relatively high number of terrorist attacks conducted by or inspired by VEOs in the region, including ISIL and AQ. As partner nations' perceptions begin to change, we should seize the opportunity and work with them to build additional needed capability.

The most prevalent challenge facing the Central Region continues to be the "underlying currents" that fuel many of the destructive behaviors that plague that strategically-important part of the world. These currents include a growing ethno-sectarian divide; the ongoing religious struggle

between violent extremists and moderates; and, the rejection of corruption and oppressive governance. They also include the “youth bulge,” which consists of young and unemployed or under-employed and disenfranchised individuals who feel marginalized and thus are ripe for recruitment by extremist elements. While there appears to be a greater recognition of the negative effects of these currents, we have yet to see sufficient improvements made to address them. Indeed, they are becoming even more pronounced. In many parts of the region, ethnic and sectarian affiliation has taken on greater importance, moving to the forefront of individuals’ and nation-states’ identities. For example, it is more important for some to be Sunni or Shia, Kurdish or Arab, than to be an Iraqi or a Syrian. Stakeholders recognize this changing dynamic, and they have not only sought to benefit from the growing instability, many actively exploit the sectarian tensions to promote their own goals and objectives. All of this has the effect of seriously weakening the nation states in the region.

Progress with respect to the root causes of the instability can only be achieved by the governments and the people of the region with our continued support. They must actively work to address the growing ethno-sectarian divide, elevate the voice of moderates, root out corruption, guard against freedom of movement and expanding influence by terrorist groups in ungoverned and under-governed spaces, and ensure the young people of the region have access to better opportunities and are able to contribute to society in meaningful ways. We need to see responsive governments in place and taking an active role in addressing these and other challenges facing the region.

The international community must also do its part to address the radical ideologies that serve to inspire extremist behaviors. It should be noted that the fight against ISIL is not simply a fight against a VEO. ISIL is an ideologically-motivated movement and must be addressed as such if we

hope to achieve lasting, positive effects. We are beginning to see some positive trends with an increasing number of state leaders, senior clerics, and religious leaders from Arab countries speaking out against radical extremism. We are hopeful that such ventures will bear fruit, and we will do all that we can to support them going forward.

What should concern us all, beyond the sectarian nature of today's conflicts, is the growing risk that the increased malign activity by proxy and surrogate actors could lead to perpetual armed conflict and resulting widespread instability in the region. The "underlying currents" are common to many of the problems that exist, and activities in one area often fuel challenges in other parts of the region. We will have to keep a close eye on these and other challenges present throughout our area of responsibility.

USCENTCOM's Mission. USCENTCOM's mission statement is: *"With national and international partners, USCENTCOM promotes cooperation among nations, responds to crises, deters or defeats state and non-state aggression, and supports development and, when necessary, reconstruction in order to establish the conditions for regional security, stability and prosperity."*

Strategic Environment. The Central Region is one of the most strategically-important regions, holding about half of the world's proven oil reserves and plentiful natural gas deposits, which are crucial to the global energy market. The U.S. and our partners have core national interests in the region; they include the free flow of resources through key shipping lanes, the prevention of the proliferation of weapons of mass destruction, and the defense of our homeland against the persistent threat of terrorism and extremism. It also is an area plagued by violence and instability, political discord, economic stagnation, resource shortages (e.g., water), ethnic and religious

tensions, and wide expanses of ungoverned or under-governed spaces. These provocative factors make for a volatile environment that puts our interests and those of our partners at risk. When things go badly in the Central Region, it has a clear and sizeable impact on the affected countries and other parts of the globe. For this reason it is an area of the world that merits our continued focus and dedicated efforts.

USCENTCOM Priorities. At U.S. Central Command, our aim is to see a positive transformation of the region over time, achieved “by, with, and through” our regional partners. Looking ahead, USCENTCOM will remain ready, engaged and vigilant. Our priority efforts include:

- Dismantle and eventually defeat ISIL in order to prevent further trans-regional spread of sectarian-fueled radical extremism, and to mitigate the continuing Iraq-Syria crisis.
- Continue support to Afghanistan, in partnership with NATO, to assist Afghanistan as it establishes itself as a regionally integrated, secure, stable, and developing country; continue planning and coordination for the enduring U.S. and NATO partnerships in Afghanistan beyond the end of 2016.
- Defeat Al Qaeda, deny violent extremists safe havens and freedom of movement, and limit the reach of terrorists, to enhance protection of the U.S. homeland and allies and partner nation homelands.
- Counter the Iranian Threat Network’s malign activities in the region, to include the impacts of surrogates and proxies.
- Support a whole of government approach to developments in Yemen, preventing Yemen from growing as an ungoverned space for AQ/VEOs; and supporting regional stability efforts that retain U.S. CT capacity in the region.

- Maintain a credible deterrent posture against Iran’s evolving conventional and strategic military capabilities.
- Prevent, and if required, counter the proliferation of weapons of mass destruction; disrupt their development and prevent their use.
- Protect lines of communication, ensure free use of the global commons and cyberspace, and secure unimpeded global access for legal commerce.
- Shape, support, incentivize, and maintain ready, flexible regional Coalitions and partners, as well as cross-CCMD and interagency U.S. whole-of-government teams, to support crisis response; optimize military resources.
- Develop and execute security cooperation programs, improving bilateral and multi-lateral partnerships, building partnered “capacities,” and improving information sharing, security, and stability.

Critical Focus Areas. While we remain focused on the broad range of challenges present today in the Central Region, there are several areas that merit a larger share of our attention and resources. These areas are strategically-important because of their potential impact on our core national interests and the interests of partner nations.

Operation INHERENT RESOLVE (Iraq-Syria). We remain intensively focused on the crisis in Iraq and Syria and the ongoing fight against the terrorist organization, ISIL. Our military campaign to defeat ISIL requires that we rely on indigenous forces and that we support and enable their efforts using our precision air operations and by advising and assisting their leadership and training and equipping their ground forces. Eighteen-plus months into the campaign, we are putting

increased pressure on ISIL throughout the depth and breadth of the battlespace. We are achieving good effects against the enemy; we completed Phase I of the military campaign (Degrade) and are well into Phase II (Dismantle).

In Iraq, the Iraqi Security Forces, which include Iraqi Army and Counter-Terrorism Services (CTS) forces, Kurdish Peshmerga, and various Sunni and Shia volunteer elements, with the support of U.S. and Coalition air operations and advisors and materiel donations, have effectively halted ISIL's advance. The enemy is now almost exclusively focused on defending his strongholds rather than projecting combat power. Additionally, ISIL's counter-attack capability has been reduced as a result of battlefield losses, although we see the group conducting deadly terrorist attacks against Iraqi forces in Anbar and west of Baghdad, and, worryingly, civilian targets – including in areas far from its control, in Baghdad and parts of the Shia-populated south.

In Syria, we are supporting and enabling the efforts of the indigenous forces, including Syrian Kurds, Arabs, Christians, Turkmen, and others. These forces are putting increased pressure on the enemy as they push south towards the capital of ISIL's self-proclaimed Caliphate in Raqqa. They have retaken more than 18,000 square kilometers of territory and cut a number of ISIL's key lines of communication (LOC). They also secured key border crossings between Syria and Turkey, impacting ISIL's ability to send in reinforcements and much-needed re-supply. It is quite possible that the military efforts underway in Syria could progress more rapidly given that we now have a growing number of willing and capable partners on the ground.

Since commencing air operations in early August 2014, Coalition air crews from 19 partner nations have conducted more than 10,700 strikes. They are taking the fight to the enemy, and have greatly

enabled the reach and effectiveness of the indigenous ground forces. Coalition airstrikes have removed several thousand enemy fighters from the battlefield, to include more than 160 of ISIL's leaders. We have destroyed thousands of the enemy's vehicles, tanks, and heavy weapon systems, along with training sites and storages facilities, command and control structures, and oil production facilities. We have helped to retake more than 40% of the territory in Iraq that ISIL held when we began airstrikes in August 2014, and we have restricted the enemy's freedom of movement along key routes in both Iraq and Syria. We have expanded our targeting of ISIL's oil enterprise, one of his primary sources of revenue and destroyed several bulk cash storage sites. This is further restricting ISIL's access to critical funds and other resources. This enemy hides among the civilian population; and so, we must be as precise as possible to avoid causing unnecessary civilian casualties and destruction of critical infrastructure, thereby generating resentment among the local populace. The high level of precision achieved by our air crews has ensured minimal collateral damage.

The situation in Iraq and Syria is made even more complex by the involvement of external actors, specifically Russia and Iran. It is apparent through Russia's actions that their primary objective in Syria is to bolster the Assad Regime, principally by targeting those Syrian moderate opposition forces that pose a threat to the Regime. Through its actions, Russia is effectively prolonging the civil war in Syria, which over the past five years has caused the deaths of well over 250,000 innocent men, women, and children. Assad would almost certainly not be in power today were it not for the robust support provided to the Regime by Iran and Russia. Russia's involvement in Syria exacerbates sectarian tensions as it appears they are supporting the Shiite states against the Sunnis. By putting the full range of their military capability on display in Syria, the Russians hope to impress regional actors and assert global power. Ultimately, they want to enhance their regional

influence to counter the U.S. as the indispensable power player in the Middle East. None of Russia's military actions have helped stabilize Syria or end the suffering of the Syrian people. The recent Cessation of Hostilities process is an opportunity for Russia to demonstrate a renewed commitment to play a constructive role in Syria. We will continue to judge Russia by its actions, not by its words.

Of note, Russia's cooperation with Iran appears to be expanding beyond near-term coordination for operations in Syria and is moving towards an emerging strategic partnership. The potential for a more traditional security cooperation arrangement between Russia, a state actor and member of the UN Security Council, and Iran is cause for significant concern given Iran's existing relationship with the Syrian Regime and Lebanese Hezbollah. We already see indications of high-end weapon sales and economic cooperation between the two countries.

We are making progress militarily in our efforts to defeat ISIL, as demonstrated by the recent victories in Ramadi and Shaddadi. However, military success will be lasting only if corresponding political progress is achieved in both Iraq and Syria. The Government of Iraq must take the necessary steps towards greater inclusiveness. Iraq will not remain a unified state long-term without the support of the major ethno-sectarian groups. In Syria, President Bashar al-Assad's actions and his deplorable treatment of the Syrian people created enormous instability in the country that allowed ISIL to flourish. ISIL will remain difficult to defeat as long as Assad remains in power. He needs to be replaced and a stable, responsive government must be established to prevent safe haven for VEOs like ISIL.

To defeat ISIL we must do as President Obama said and "squeeze its heart [in order to] make it

harder for ISIL to pump its terror and propaganda through the rest of the world.” This remains the foundation of our Military Campaign Plan – to degrade, dismantle, and eventually defeat this enemy in Iraq and Syria. This is essential; however, it is not sufficient. Beyond its strongholds in Iraq and Syria, ISIL has expanded to other parts of the globe, including to Egypt, Saudi Arabia, Libya, Yemen, and Afghanistan-Pakistan. Expansion is a necessary element of ISIL’s declared end-state of a global Caliphate. It also demonstrates that we are degrading the enemy’s capability in Iraq and Syria; as a result, ISIL is attempting to gain a foothold in alternate locations. Moreover, the increased activity helps to distract the international community from the setbacks that ISIL is experiencing in Iraq and Syria. To maintain its legitimacy, ISIL must achieve real or perceived military victories and it must expand territorially. While the priority must be the defeat of ISIL’s core in Iraq and Syria, we also will need to address the ISIL affiliates and franchises that exist in other parts of the region and globe. Additionally, we will need to continue in our efforts to curb the flow of foreign fighters, and take away the enemy’s ability to resource himself.

The U.S. military is not doing any of this alone. The military campaign is just one component of the broader U.S. Government (USG) strategy which consists of nine lines of effort (LOE), to be executed by all elements of the USG with the support of our coalition partners. The military is responsible for two of the nine LOEs, LOE #2 and #3. LOE #2 – “Denying ISIL Safe Haven” is being accomplished through our support to indigenous ground forces in Iraq and Syria, primarily through our precision airstrikes, employment of available Intelligence, Surveillance, and Reconnaissance (ISR) assets, and our advise and assist efforts. LOE #3 – “Building Partner Capacity” includes our train and equip program and advise and assist efforts in Iraq. Critically important are the many contributions being made by the 66 partners that make up the Counter-ISIL Coalition; the Coalition represents the strength of the military campaign.

We made it clear at the outset of the campaign that the defeat of ISIL would take time. There is tough work still ahead. We must remain vigilant and keep pressure on this enemy, recognizing the high stakes involved.

Afghanistan (Operation FREEDOM'S SENTINEL/RESOLUTE SUPPORT Mission). The Afghan's National Defense and Security Forces (ANDSF) have been challenged over the past several months in what was an especially tough fighting season. During the first full year in which the ANDSF were fully responsible for the security of their country, the ANDSF managed to deny the Taliban lasting gains. The Taliban saw the opportunity to exploit weaknesses in the Afghans' still-maturing capabilities. Although the Taliban achieved some initial success, the ANDSF have retaken and reestablished security in key areas, such as Kunduz. Most important, the ANDSF continue to learn from their experiences and look to grow stronger and more capable. The ANDSF also benefit from a supportive government that values the strong partnership between the U.S. and Afghanistan. The National Unity Government (NUG), led by President Ashraf Ghani and CEO Abdullah Abdullah, continues to mature as both leaders work together on behalf of the country.

Meanwhile, we see positive developments across the populace. Of note, adult life expectancy has risen by 22 years from 42 years in 2002 to 64 years in 2012¹. We have seen the various state institutions develop and mature; and, the Afghans continue to make progress in the areas of governance, the judiciary, and respect for human rights, women's rights, and education. In 2001, less than 900,000 Afghans were enrolled in primary and secondary schools and almost none of them were girls. Today, there are more than 8 million students enrolled in school; 36% of them are

¹ U.S. Agency International Development (USAID).

girls². Progress in Afghanistan has been significant over the past 14+ years, and the U.S.-led Coalition and the ANDSF have provided the necessary security to enable these advancements. There is a strong desire to continue to make lasting improvements in all areas, including education, the economy, healthcare, infrastructure, and communications.

While the ANDSF have made significant progress, critical capability gaps do exist in some areas, including leadership, aviation, aerial fires, ISR, logistics, and sustainment. Many of the systems that support Afghan warfighters have not fully matured, and our continued support remains critical to their development and long-term success.

The ANDSF still face a significant insurgency complicated by the presence of a number of extremist elements in the region including the Taliban, Haqqani Network, AQ, and the newly-formed ISIL – Khorasan Province (ISIL-KP). ISIL-KP poses a concern for the U.S. and our Afghan partners given the evolving security dynamic. The group's efforts to date have produced mixed results; however, they instability, violence, and potential for regional growth require effective pressure to deny the establishment of a safe haven. Persistent action must be taken by the Afghan government with the support of the U.S., NATO, and regional partners to disrupt the expansion of ISIL-KP and other VEOs in the region.

The Afghanistan and Pakistan (AFG-PAK) relationship remains a delicate one. Some progress was made this year, and both sides indicate a continued willingness to participate in multi-lateral and bilateral discussions. Despite long-standing distrust between elements in each country, the United States is encouraged by both nations' continued cooperation and collaboration towards trans-

² Afghan Central Statistics Organization (2014).

regional security and stability.

On 15 October 2015, President Obama announced that the U.S. would maintain up to 9,800 U.S. forces in Afghanistan through most of 2016, before drawing down to 5,500 U.S. forces by January 2017. This decision allows for the continued training, advising, and assisting of the ANDSF through the 2016 fighting season. By maintaining the current level of forces through much of 2016, the United States will be able to: (1) reassure Afghanistan, our partners, and allies of our enduring strategic commitment; (2) continue to conduct the train, advise, and assist (TAA) mission at the Afghan National Army (ANA) corps level and Afghan National Police (ANP) equivalent levels; and, (3) support our counter-terrorism (CT) efforts against AQ and ISIL-KP. TAA at the operational-level for select ANDSF special forces units has paid significant dividends, as evidenced by the expeditionary advising performed during operations in Northern Helmand and Kunduz at the end of the 2015 fighting season, and will remain a critical component of building capacity and institutionalizing long-term ANDSF sustainment systems.

By sustaining our current troop levels through 2016, we also demonstrate a strong commitment to our NATO allies and other partner nations, many of whom have since reaffirmed their troop commitments in support of the NATO-led Resolute Support Mission. NATO's continued participation is integral to the development of the ANDSF and will also help ensure donor nations provide much-needed financial support to the ANDSF. Finally, our presence sends a clear message to the Taliban that the U.S. supports the Afghan government and the ANDSF and encourages broader reconciliation efforts and lasting peace achieved through dialogue, rather than through violence and a continued insurgency.

Afghanistan remains a worthwhile and strategically-necessary investment. The Afghans continue to demonstrate that they are willing partners. Together, we have invested many lives and precious resources with the goal of improving stability in that country. We want to preserve those hard-earned gains and to enable the Afghans continued success going forward.

Countering Terrorism and Violent Extremist Organizations. A variety of factors that include poor governance, economic disparity, disenfranchised populations, and deficient security forces contribute to creating conditions that promote the activities of VEOs, including ISIL and AQ. The VEOs are able to plan and launch attacks, undermine local governments, and exercise malign influence from ungoverned or under-governed spaces. In doing so, they threaten regional security and U.S. core national interests, including the defense of our homeland.

Perhaps the most significant development in recent years is the proliferation of transnational and trans-regional VEOs that desire and, in some cases, demonstrate the ability to shape and even dominate the security environment in ways that we have not seen before. These transnational extremist groups are ideologically opposed to and often target the nation states in the region. They conduct attacks and terrorize local populations in an effort to undermine and eventually topple existing governments. This further contributes to increased instability in the region.

One related dynamic that we see developing is a growing competition between transnational extremist groups. For a long period of time, AQ was the unchallenged leader of global jihad. Then, in late spring of 2014, ISIL seized large swaths of territory in Iraq, in addition to the territory it seized in Syria. It declared a Caliphate and suddenly AQ was facing a rival. Going forward, there is significant potential for increased expansion among VEOs as ISIL and AQ

compete for resources and recruits. This will compel both groups to conduct more spectacular operations and to employ more aggressive messaging campaigns. As ISIL and AQ look to expand their influence, we can expect other VEOs to attempt to align with these groups. The resulting struggle and heightened activity will contribute to increasing instability across the region.

We must take direct military action where appropriate to counter this growing threat. We cannot allow VEOs to operate uncontested in the region, permitting them to grow stronger and expand their global reach. The long-term defeat of VEOs will require that our regional partners provide for the security of their sovereign spaces, with the U.S. and its allies providing support where possible. Until they have sufficient capability to do so, we must be prepared to take active direct measures to counter these VEOs.

Yemen. Yemen remains embroiled in a complex civil war that is exacerbated by sectarian tensions. In January 2015, the Huthis, a group of Zaydi Shia fighters led by Abdul Malik al-Huthi and aligned with former President Ali Abdullah Saleh, displaced the legitimate government of Yemen led by President Abd Rabbu Mansur Hadi. On each side, there are a number of competing factions, including the Huthis, Saleh loyalists, southern secessionists, and tribal alliances with competing agendas that further complicate the situation on the ground. These groups are attempting to assert control over Yemen as a whole or at least gain greater autonomy within their respective areas of influence.

Iran has provided support to the Huthis, likely to gain leverage against the Kingdom of Saudi Arabia (KSA). This could potentially enable the Iranians to complicate maritime LOCs, including the Bab al Mandeb Strait, from the Red Sea to the Gulf of Aden and beyond. Iran has a long history of

seeking to protect the Shia populace in the Gulf and using this rationale to justify a broad array of actions. Conversely, KSA desires a stable Yemen with a pro-Saudi government that effectively protects its border, prevents an Iranian proxy from gaining undue influence over strategic terrain that includes the Bab al Mandeb, and protects against safe havens for Al Qaeda in the Arabian Peninsula (AQAP) and other VEOs. The KSA-led Coalition has sought to counter the Huthis and associated forces with the goal to return the legitimate displaced Hadi government to power. While the coalition has experienced some significant challenges and we have expressed concerns about Coalition strikes on targets that lead to civilian casualties and damage Yemen's already poor infrastructure. Nevertheless, the Coalition's efforts have proven problematic for the Huthis.

Yemen is the poorest country in the Central Region and the ongoing conflict continues to exacerbate the very serious humanitarian crisis plaguing the country. Much of Yemen's infrastructure has been destroyed, food production is at a standstill, international trade is severely degraded, medical supplies are critically short, and little humanitarian aid is reaching those in need. The ousting of the Republic of Yemen Government (RoYG) created a large security vacuum which has greatly benefited AQAP, as well as the newly-formed ISIL affiliate, ISIL-Yemen (ISIL-Y). AQAP is strengthening and expanding its reach in the absence of a significant CT effort. Prior to the unseating of the Hadi government, the U.S. maintained a physical presence in Yemen and an effective CT partnership with the Yemeni security forces. We conducted operations against AQAP and had significantly degraded its capacity. We were also in the process of building the Yemeni forces' capacity through our advise and assist and train and equip efforts. The reduced capability coupled with the lack of a U.S. presence presents a vulnerability that must be addressed.

Since these groups pose a national security risk to the U.S. and partner nations, it is imperative that

we seek a way to resume a partnered approach to CT operations against Yemen-based VEOs and their support networks. It is in our national interest and the interest of our partners to resolve the civil war and reinstate the legitimate government that can work to address the many challenges facing Yemen today. We are looking at how to best move this forward. The additional capability would enable them to better secure their borders and guard against internal threats from violent extremists.

Iran. Iran continues to pose a significant threat to the region despite the restrictions placed on its nuclear program as a result of the Joint Comprehensive Plan of Action (JCPOA) agreement. In this post-JCPOA period, the Iranian Threat Network's (ITN) Iranian Revolutionary Guard Corps-Quds Forces (IRGC-QF), proxies (e.g., Lebanese Hezbollah), and Iranian-backed Shia militant groups remain very active. Iran also maintains a large and diverse theater ballistic missile arsenal, along with significant cyber and maritime capabilities. Despite the fact that President Rouhani's administration has indicated an interest in normalizing relations with the international community, there are hardline elements in the country intent on undermining the efforts of the moderates. They maintain substantial influence over Iran's foreign policy and military activities.

Iran continues to pursue policies that enflame sectarian tensions and threaten U.S. strategic interests in the Central Region. Their primary focus is countering the ISIL threat in Iraq and preserving the Assad Regime in Syria. They also continue to support some Shia surrogate groups in Bahrain and Saudi Arabia, Huthis in Yemen, and Lebanese Hezbollah, with a combination of money, arms, and training. Iran's emerging relationship with Russia further complicates the security environment as they look to expand their cooperation in areas that include the sale of high-end weapons. We must consider that when ISIL is defeated and Syria stabilizes, we and our partners will face an enhanced

ITN bolstered by warfighting experience, a multi-ethnic supply of radicalized Shia fighters, expanded partnerships, and an intense sectarian climate. There are additional developments within the ITN that we will have to closely monitor to fully appreciate the nature of this evolving threat. For example, Iranian-backed Shia militia groups are becoming entrenched within Iraq's formal security institutions through the Popular Mobilization Forces, a development that could provide these groups with increased resources and legitimacy and greatly complicate our relationship with Iraq's security forces going forward. Additionally, it is possible that Iran will have challenges commanding and controlling an expanded ITN, something we are already seeing play out in several places across the region. Iran exerts a considerable degree of influence over the multiple external proxies and surrogates that comprise the ITN. However, the larger the ITN becomes through the proliferation of Shia militant groups, the more difficult it may be for Iran to control their activities, especially when their interests diverge.

Our relationship with Iran remains a challenging one. We will continue to pay close attention to their actions, while supporting our regional partners and helping them to improve their capacity to counter Iran and mitigate the effects of Iran's malign activity in the region.

A Regional Perspective. In many ways our military-to-military relationships continue to represent the cornerstone of America's partnerships with the nation states in the USCENTCOM AOR. Below are synopses of the status of those relationships, along with the current state of affairs in each of the 20 countries, save Iraq, Syria, Afghanistan, Yemen, and Iran which were addressed in the previous section, "Critical Focus Areas" (see pages 9-21):

The Gulf States – The Gulf States remain steadfast partners and continue to support the Counter

ISIL Coalition's operations in Iraq and Syria, primarily through the provision of robust access, basing, and overflight permissions critical to the conduct of regional operations. This support played out against the backdrop of some key developments over the past year, GCC support for the JCPOA agreement, and the GCC-led campaign in Yemen, which remains the Gulf State's primary focus.

Last year, we witnessed an increased willingness by our Gulf partners to attempt to actively shape and influence the regional security environment, most recently in the campaign in Yemen. Several of the Gulf States have demonstrated an unprecedented level of unity and military cooperation in operations against the Huthis in Yemen, and we continue to emphasize the importance of pursuing a political solution that will lead to the reinstatement of the internationally-recognized government. We are working with the Saudi-led coalition to help mitigate civilian casualties and to ensure that humanitarian assistance flows into Yemen. Nevertheless, we are deeply concerned by the devastating toll of the crisis in Yemen, both in terms of civilian casualties and the dire humanitarian situation that Yemen faces. We continue to urge all sides to undertake proactive steps to minimize harm to civilians, including by exercising restraint, distinguishing between military objectives and civilian objects, and not positioning armaments or military equipment in areas where civilians are known to be present, as the Huthis have done.

Our GCC partners have also indicated a desire to collaborate more closely with the U.S. on the threat posed by AQAP and the newly ascendant ISIL-Y. However, the pace and scope of activity has challenged the Gulf States' ability to sustain operations, and to conduct the same level of military-to-military engagements, training, and exercises as in previous years. Now, more than ever, there is a need for strong U.S. engagement, vision, and leadership aimed at increasing participation and

cooperation amongst and between our GCC partners.

We have worked hard to strengthen our strategic partnership with the **Kingdom of Saudi Arabia** (KSA) in support of shared security objectives. Going forward, we can expect KSA to continue to exercise influence among Sunni States throughout the Central Region.

The Kingdom continues to balance a wide range of external security challenges, including the fight against ISIL in Iraq and Syria, operations in Yemen against the Huthi-Saleh alliance, and the growing threat posed by AQAP, ISIL-Y, and other VEOs. While KSA is a member of the Counter-ISIL Coalition, over the past several months their primary focus has been leading the coalition in Yemen. The ongoing campaign in Yemen has provided KSA with valuable experience in building and sustaining coalitions and conducting coalition-supported operations. It also has provided some opportunities for us to identify reforms that KSA could undertake to increase their capabilities.

The Saudis continue to support the fight against ISIL. After postponing air operations for a period while they focused on Yemen, KSA recently staged F-15s at Incirlik, Turkey and will commence operations inside of Syria beginning in early March. While operational demands continue to limit the amount of support that the Saudis are presently able to devote to the Counter-ISIL Campaign, we anticipate that as the conflict in Yemen approaches a negotiated settlement, Saudi support for ongoing efforts against ISIL and other VEOs will expand.

Kuwait remains a model for stability in the Gulf Region. It provides one of the most supportive environments for access, basing, overflight, and burden-sharing. As a Gulf leader, Kuwait has

been able to mitigate rifts between and among partner nations, while at the same time helping to promote a regional response to crises emanating from the region (e.g., Iraq, Syria, and Yemen). We want to continue to encourage and enable the Kuwaitis in their efforts to achieve increased cooperation among the GCC partner nations.

The bilateral relationship between the U.S. and Kuwait remains strong. With robust air and sea ports, as well as modern military bases and infrastructure, Kuwait provides a critical platform for USCENTCOM to project power in response to regional contingencies. Most notably, Kuwait is home to the forward operating headquarters of USCENTCOM's U.S. Army component, U.S. Army Central (USARCENT). The support provided by the Kuwaitis has been integral to the planning and execution of Operation INHERENT RESOLVE (Iraq and Syria) and Operation FREEDOM's SENTINEL/RESOLUTE SUPPORT Mission (Afghanistan).

This year marks the 25th anniversary of the liberation of Kuwait from Iraq. The occasion provides an opportunity to acknowledge the significant contributions made by the U.S.-led coalition in 1991, while showcasing the gains made over the past quarter of a century as a result of the security cooperation agreement that exists between both countries. It is also an opportunity for pursuing additional steps to deepen and broaden our partnership with Kuwait. We remain committed to working together to address emerging threats. Although Kuwait has been largely unaffected by the fight in Iraq and Syria, it did suffer a significant bombing of a mosque in Kuwait City in June 2015 for which ISIL claimed responsibility. We remain committed to assisting the Kuwaitis in their efforts to prevent ISIL from achieving further inroads within Kuwait's borders.

Our military-to-military relationship with the **United Arab Emirates** (UAE) continues along its

historically positive trajectory. The UAE shares our concerns with respect to the regional spread of violent extremist ideologies, and the Emirates recognize the threat posed to their internal security – and overall regional stability – by ISIL and its adherents and affiliates. In response to this shared threat, the UAE has undertaken several complementary lines of effort designed to counter the rise of groups like ISIL-Y and AQAP. Our continued support is critical to enabling the Emirates’ “lead by example” approach to regional security, both on the ground and in the information domain. Given our shared enduring security interests, the U.S.-UAE relationship will almost certainly grow in importance in the coming days.

The UAE’s military capability is arguably the most mature among the Gulf States. The Emirates have demonstrated the ability and political willingness to plan and conduct expeditionary military operations, as evidenced by their recent deployment of forces in support of the Saudi-led operation in Yemen. They also provide critical support for coalition operations in Afghanistan. Going forward, we will look to strengthen our security cooperation partnership with the UAE through continued engagement and a robust Foreign Military Sales program. We also will pursue opportunities for increased collaboration in support of CT initiatives across our AOR.

Qatar continues to play an influential diplomatic and military role throughout the Central Region and has demonstrated a commitment to strengthening relations with the United States. This year, the Qataris played a central role in the Counter-ISIL Coalition operations in Syria, in addition to providing forces to the Saudi-led coalition in Yemen. It is the first time Qatar has supported two simultaneous operations outside its borders. These dual track efforts place significant demand on the Qatari military’s 11,000-member force. The Qataris, with our support, will need to find ways to manage the demand while they take steps to enhance the capability of their military forces.

In 2014, Qatar was the largest FMS customer in the world with \$11 billion in new cases (Patriots, Apaches, and Javelin). Qatar is also looking to further expand its Integrated Air and Missile Defense (IAMD) system by acquiring Terminal High Altitude Area Defense and Early Warning Radar capabilities. Qatar's efforts to modernize its military and increase its self-defense capabilities, present an opportunity for the U.S. to enhance its interoperability with an important regional partner. We will coordinate those missile defense efforts as part of our broader engagement with the GCC on ballistic missile defense.

We value our strong military-to-military relationship with the Qataris. Over the past 20 years, Qatar has provided the U.S. with unmatched regional access through basing of American forces at Camp Al Sayliyah and Al Udeid Air Base (AUAB). Of note, AUAB is the single-largest U.S. logistical hub in theater and the Combined Air Operations Center at AUAB provides critical oversight and direction to all U.S. air operations in the region. Qatar's long-demonstrated history of open partnership makes it one of our strongest partners in the Central Region.

The U.S. enjoys a historically strong and productive partnership with the **Kingdom of Bahrain**. Bahrain hosts the headquarters of United States Fifth Fleet and Combined Maritime Forces in Manama (Naval Support Activity Bahrain and Isa Air Base), and it enjoys status as a major non-North Atlantic Treaty Organization ally. Bahrain is also a member of the Counter-ISIL Coalition; its air crews participated in the initial airstrikes in Syria in September 2014. Additionally, the Bahrainis remain active supporters of the Saudi-led operations in Yemen. The Kingdom faces a persistent threat from Iran via malign proxy activity within its borders. USCENTCOM actively supports the Bahrainis in their efforts to counter this threat.

Our military-to-military relationship improved in recent months since full resumption of U.S. FMS after a three-year delay. Bahrain also seeks to make improvements to its aviation capabilities, specifically by purchasing new F-16s and upgrading its ageing fleet. We continue to urge the Bahrainis to further their commitment to political reconciliation and dialogue, which is fundamental to mitigating the risks posed by sectarian radicalization. The Bahraini government has implemented a number of reforms since 2011. We are encouraging them to pursue and mature these reforms and other similar institutions, as it is imperative that internal security gains against tangible threats do not lead to harsh restrictions on legitimate and non-violent expressions of political disagreement.

The U.S. and **Oman** maintain close relations based upon a shared desire for a peaceful and prosperous Gulf Region, and we greatly appreciate Sultan Qaboos bin Said al Said's leadership. Oman is strategically positioned on the Arabian Sea and provides critical support to the U.S. in the form of access, basing, and overflight permissions that greatly enable coalition efforts in the region. While Oman's strategic approach does occasionally cause tension between Oman and its GCC neighbors, it also presents USCENTCOM with opportunities to work with the Sultanate as an intermediary between adversarial states. In general, our bilateral military-to-military relationship with Oman remains strong, underpinned by the U.S. and Oman's shared interest in maintaining open sea lines of communication in the Gulf and strengthening land borders in order to prevent the infiltration of AQ and other VEOs into the Sultanate.

The Levant – The Greater Levant sub-region is the epicenter of ethno-sectarian tensions and conflict in the USCENTCOM AOR. The volatility reflects the makeup of the sub-region's populace with Sunnis, Shia, Kurds, Christians, Druze and others living together in mixed

neighborhoods. Also adding to the unrest is the growing competition between AQ and ISIL. AQ shifted some of its command and control to Syria to support its most prominent affiliate, al Nusrah Front. At the same time, the core of ISIL's self-proclaimed Caliphate resides in the Levant. Thus, the Levant is where you have two organizations' senior leadership in competition for global jihad. At the same time, the sub-region is struggling to manage the effects of the civil war in Syria. If not contained, the conflict, now in its fifth year, risks sparking a broader regional war. It also has caused a burgeoning humanitarian crisis affecting Jordan, Lebanon, Turkey, and Iraq. Stability in the Levant is impacted by the competition for influence by outside actors, principally Iran, China, and Russia. The instability in the Levant also threatens Israel, an important U.S. ally. The close coordination between USCENTCOM and U.S. European Command is essential given Turkey and Israel's role in the Levant's security environment.

Lebanon is an important and valued partner in the region. Lebanon faces an array of interlocking challenges that include sustained threats from ISIL and other VEOs; a steady influx of refugees that only exacerbates long-standing sectarian tensions and ongoing humanitarian and economic crises; and a political deadlock in Beirut that has left Lebanon without a president for over 19 months with none of the major political institutions of the state – the presidency, parliament, and the cabinet – functioning adequately today. ISIL and AQ affiliate Al Nusrah Front pose potential threats to Lebanon's security and stability along Lebanon's border with Syria, but also in urban areas deep within the country's border. In November 2015, ISIL conducted coordinated suicide attacks against Shia targets in Southern Beirut killing 41 civilians. The attacks threatened to ignite increased Sunni-Shia tensions, but tensions were diffused by an immediate and coordinated response by Lebanese security forces. These attacks were at least partly in response to Lebanese Hezbollah's (LH) active involvement in the Syria conflict. Although Lebanon's official contributions in

support of the Counter-ISIL Campaign have been limited to CT efforts inside of Lebanon's borders, the Lebanese Armed Forces (LAF) have been heavily engaged in the fight against extremists with near daily engagements along Lebanon's border with Syria.

Lebanon faces a refugee crisis of historic proportion with more than 400,000 Palestinian refugees and 1.5 million Syrian refugees, which is equal to a quarter of Lebanon's population. The latter presents an economic and humanitarian burden for Lebanon, while also posing a security threat as some Syrian refugees may be vulnerable to Sunni extremist influences. In order to effectively cope with the refugee crisis resulting from the Syria conflict, Lebanon will require significant international assistance long-term. Meanwhile, top Lebanese officials have suggested that there may be a need for an international intervention to address the presidential vacancy and political impasse which has resulted in poor government services and large-scale public demonstrations.

In the context of these challenges, the LAF is one of Lebanon's only functioning national institutions. We enjoy a strong military-to-military relationship with the LAF, and our support has been critical to its success. Our special operations forces have conducted extensive joint training exercises and have well-established relationships. The LAF has been a staunch USCENTCOM partner for nearly a decade, receiving almost \$1 billion in combined assistance from the U.S. during this period. During FY2015, we provided \$84 million in foreign military financing (FMF), \$80 million in CT assistance, and also trained over 2,000 LAF soldiers in the U.S. Our special operations forces have conducted extensive joint training exercises and have well-established relationships. Because of its success against ISIL and other VEOs, the LAF enjoys strong support across Lebanese sects. Our continued support of the LAF is critical and will focus on developing much-needed ISR, strike, and aerial fires capabilities to ensure sustained

success against ISIL and Al Nusra Front along the border and to counter-balance LH.

The **Hashemite Kingdom of Jordan** remains one of the United States' most reliable partners. Like many in the region, Jordan faces economic challenges that are exacerbated by the Syrian civil war, the associated refugee flow, and a generally unstable regional security environment. The instability caused by the "underlying currents," namely the "youth bulge," makes Jordan's populace highly susceptible to radicalization. The country's leadership is particularly concerned about the growing threat from ISIL and Al Nusra Front emanating from Syria. The Jordan Armed Forces (JAF) remain active participants in the Counter-ISIL Campaign.

Jordan's partnership and leadership are critical to advancing U.S. regional objectives. Jordan is widely considered the Arab voice of moderation in the region and Jordanian leadership continues to play a critical role in countering the extremist ideologies that contribute to instability. In return, Jordan requires economic assistance for military cooperation and to stabilize its economy. In FY 2015, Jordan received \$385 million in FMF. Congress appropriated \$450 million in FMF for Jordan in FY 2016. Additionally, Jordan receives \$3.8 million annually for International Military Education and Training (IMET), and more funding than any other partner to date from the Counterterrorism Partnerships Fund. The JAF's ability to procure U.S. weapons and equipment and increase interoperability with U.S. forces depends on this funding, which also provides Jordan with a strong message of assurance that we will help to defend them from extremist threats. Finally, Jordan requires continued international assistance to deal with its sizeable refugee population that consists of approximately 600,000 UN-registered Syrian refugees, the majority of whom compete with locals for employment and housing, creating the potential for increased tensions. In the past 24 months, USCENTCOM invested \$5.4 million for humanitarian affairs

projects inside of Jordan.

Egypt remains an anchor state in the Central Region. It is a key strategic partner of the United States in both the counter-ISIL fight and with respect to our many shared security interests, including securing peace with Israel, achieving regional stability, and enhancing security of the Suez Canal. While daily life is returning to normal after four years of political upheaval, including recently conducted parliamentary elections, Egypt still faces a number of internal and external challenges, especially in the Sinai Peninsula, which is now home to the ISIL affiliate, ISIL-Sinai (ISIL-S) that threatens not only Egyptian stability, but also the Multinational Force & Observers (MFO) mission, and is strongly suspected of downing a Russian civilian airliner. Egypt is also increasingly concerned about ISIL-Libya's ability to impact its western border.

The cornerstone of the U.S.-Egypt relationship is the military-to-military partnership with the Egyptian Armed Forces (EAF), forged through decades of close coordination, exercises, and interdependence. After a downturn in relations in 2013, we have seen the relationship enter a gradual recovery period. The Egyptians support our overflight requests and provide our naval forces with Suez Canal transit courtesies that provide expedited access to critical waterways. Egypt routinely deploys peacekeeping troops in support of operations around the globe. USG aid and support to Egypt, including FMF, remain crucial to Egypt's fight against ISIL-S as we work closely with the EAF to provide both the equipment and the training required to make the transition from a force focused on conventional warfare to one that can defeat a terrorist enemy using asymmetrical tactics. We are focused on helping Egypt improve the security of their borders in an effort to stop the flow of foreign fighters and equipment transiting from Libya and the Sudan through Egypt and into the Central Region.

A sizeable portion of Egypt's current military leadership is U.S.-trained and has indicated a keen interest in securing additional U.S. support to address evolving security threats. It will be imperative to leverage these ties as we look to assist the Egyptian military in their ongoing efforts to bring improved stability to North Africa, including the Sinai Peninsula. Also, we want to help them to further modernize and reform their security forces to better enable them to address relevant threats and play a larger role in providing for regional stability. Specifically, we will need to focus on updating Egypt's counter-insurgency/CT doctrine and training programs to better address the unique nature of the terrorist threats facing the region. We continue to provide much-needed support to the MFO mission, whose presence has been a linchpin for Egyptian-Israeli peace and cooperation since its inception over 30 years ago. With the support of the Egyptians, we have taken significant measures in recent months to increase the protection of our forces assigned to Task Force Sinai and the MFO mission writ large.

Egypt has not contributed forces in support of the Counter-ISIL Campaign in Iraq and Syria. They are supporting the Saudi-led fight in Yemen, and they continue to place pressure on ISIL affiliates in both the Sinai and Libya. Additionally, Egypt's regional leadership carries much influence among our Arab partners and can help to promote USCENTCOM's broader regional objectives. We continue to look for ways to integrate Egypt into the Counter-ISIL Coalition and in support of our CT efforts across the region.

Central and South Asia – We view the CASA sub-region, not as a single entity, but as seven individual countries, each with its own political and economic trajectory and each sharing a unique bilateral relationship with the U.S. While we have many shared interests, we are paying especially close attention to the Central Asian States' (CAS) reaction to the planned U.S./NATO downsizing in

Afghanistan set to begin in late 2016. Of note, transit access by way of the Northern Distribution Network, used to supply our troops in Afghanistan, is provided by Kazakhstan, Tajikistan, and Uzbekistan.

Our primary goal remains unchanged and that is to prevent the establishment of terrorist safe havens in the CASA sub-region, while acknowledging the challenges posed by trans-national extremism, narco-trafficking, and the return of foreign fighters. These countries face additional pressures from an increasingly assertive Russia. China is seeking to expand its economic influences in the sub-region as well. In light of these challenges, leaders in the region actively seek U.S. engagement, while we continue to encourage greater multi-lateral cooperation with the goal to promote improved security and stability in the region and to preserve the CAS' sovereignty.

We conducted our first CASA Chiefs of Defense (CHOD) Conference in late September. The event was well-attended and highly-productive. Despite their geographic proximity, many of the CHODs had not met nor communicated with one another prior to attending the conference. The conference focused on identifying opportunities for collaboration on issues such as CT, counter-narcotics (CN), border security operations, and the professionalization of their officer and non-commissioned officer corps. It was encouraging to see that, despite their previous reluctance to interact in multi-lateral forums, the CHODs actively participated in the discussions. They also expressed interest in convening a follow-on conference, and several of them expressed a desire to participate in multi-lateral military exercises going forward. The CASA CHODs also expressed a keen interest in finding ways to share intelligence that could further support regional CT operations. On 14-15 March, the CASA DMI (Director of Military Intelligence) Conference will be held at USCENTCOM Headquarters in Tampa, Florida. Six of the seven CASA States will be represented.

The U.S.-**Pakistan** military-to-military relationship remains stable. Key contributing factors are our security assistance, and the Coalition Support Fund. In December 2015, we participated in the Defense Consultative Group, a component of the U.S.-Pakistan Strategic Dialogue, which focused on future initiatives that will help to sustain U.S.-Pakistan bilateral defense cooperation on shared security interests.

We are encouraged by some signs from Kabul and Islamabad that point towards a renewed effort at improving Afghanistan-Pakistan relations, and Pakistani support for the reconciliation process in Afghanistan. The Pakistan military continues to play a visible role in efforts to reduce safe havens in the Federally Administered Tribal Areas (FATA) along the Afghanistan-Pakistan border, while at the same time actively countering VEOs, including AQ, Tehrik e Taliban - Pakistan, and the newly-emerged ISIL-KP. During the most recent fighting season we saw increased collaboration among Afghan and Pakistani military leadership. Commanders at the corps level have met multiple times and continue their efforts to increase interoperability between the forces. Both countries' military leaders also are working to secure a bilateral border standard operating procedure. In the meantime, we need Pakistan to take decisive actions against the Haqqani Network (HQN). The Pakistanis are uniquely positioned to counter the HQN, which remains the greatest threat to our forces and to stability in Afghanistan long-term.

Progress on the India-Pakistan relationship is hindered by cross-border violence and territorial disputes. However, there have been some encouraging signs and lines of communication remain open as demonstrated by Indian Prime Minister Narendra Modi's and Pakistani Prime Minister Nawaz Sharif's meeting in Pakistan in late December 2015 and the subsequent commitment both parties to reinstitute the Comprehensive Dialogue. Dialogue between the two countries is critical,

especially given that they are both nuclear powers. USCENTCOM will continue to do our part to help encourage and strengthen the critical relationship between Pakistan and its neighbors.

Kazakhstan remains the best positioned country in the CASA sub-region with respect to security given its geographic location and strong economic foundation. However, the recent downturn in oil prices and pervasive Russian influence do present growing challenges. Despite these obstacles, the U.S.' relationship with Kazakhstan remains the most well-developed among the Central Asian States. The Kazakhs seek U.S. assistance in modernizing their military forces, and we are taking advantage of the opportunity to further strengthen our bilateral relationship. Specifically, we are helping the Kazakhs to professionalize their non-commissioned officer corps, modernize their military education program, and improve training and personnel management. Additionally, we continue to help the Kazakhs to build a deployable peace-keeping capability. Kazakhstan remains the largest contributor to Afghanistan's stability among the CAS, providing technical and financial support to the Afghan security forces and educational opportunities for Afghan students to study in Kazakhstan.

The Kyrgyz Republic faces many of the same security challenges as its neighbors in the region, particularly with respect to the threat posed by VEOs and the flow of narcotics. While our military-to-military relationship with the Kyrgyz has been historically positive, it remains challenged by the absence of a Defense Cooperation Agreement (DCA), which guarantees U.S. service members legal protections while in country. The DCA with then-Kyrgyzstan ended on 11 July 2014 with the closure of the Transit Center at Manas International Airport. While this has strained our military-to-military relationship, we intend to pursue bilateral cooperation on a case-by-case basis.

Tajikistan has been heavily impacted by Russia's economic downturn and by increased instability in northern Afghanistan. Moreover, intense pressure from the Kremlin, including the presence of Russian military bases inside of Tajikistan, limits our military-to-military cooperation. Nevertheless, Tajikistan still desires a strong partnership with the U.S. to help address external security concerns, maintain internal stability, and safeguard Tajikistan's sovereignty. Our mutual security interests provide several opportunities for cooperation in the areas of CT, CN, border security along the Afghanistan-Tajikistan border, as well as the development of a deployable peacekeeping force. Our military-to-military relationship is growing comparatively faster than our other relationships in the CASA sub-region.

Like other hydrocarbon-exporting countries, **Turkmenistan** has had to confront falling gas prices and remains concerned about perceived instability in northern Afghanistan. Turkmenistan is selective in accepting military cooperation programs, declining to participate in most military events, conferences, and exercises. U.S. cooperation with the Turkmen is primarily focused on counter-narcotics, disaster preparedness, and medical service readiness. These three areas provide us with engagement opportunities to build those partner capabilities that are acceptable to the Turkmen and also help to sustain and even strengthen our relationship going forward.

A shared border with Afghanistan and a heavy domestic security presence have helped to shield **Uzbekistan** from significant threats. Despite their stated aversion to foreign blocs and multi-lateral engagements, our relationship with the Uzbeks continues to grow stronger. Bilateral military-to-military opportunities are focused on improving border security, CT, CN, and stemming the flow of foreign fighters. The Uzbeks, like other CASA nations, remain concerned about the potential return of radicalized fighters from Iraq, Syria, and Afghanistan. Our military-to-military

relationship with the Uzbeks remains positive. By expanding our collaboration, we expect to improve the professionalism and capacity of Uzbekistan's armed forces, which is the largest military force in Central Asia.

Our Strategic Approach. The effective employment of our "Manage-Prevent-Shape" strategic approach largely depends upon the capacity and readiness of our forward-deployed military forces and Service prepositioned materiel capabilities. Equally important are our efforts aimed at building our regional partners' capacity and strengthening our bilateral and multilateral relationships. This is achieved principally through key leader engagements and our training and joint exercise programs.

Building Partner Capacity (BPC). A key component of USCENTCOM's Theater Strategy focuses on building the capacity of partner nations to enable them to assume a greater role in providing for the security of their sovereign territories and counter common threats. Joint training exercises, key leader engagements, and FMS and FMF programs continue to represent the key pillars of our BPC strategy. Also critical are relevant authorities and programs noted in the FY2016 President's Budget, namely the Global Train and Equip authority and Counter Terrorism Partnerships Fund. BPC is a low-cost and high-return investment. Tangible by-products of our BPC efforts include increased access and influence, enhanced interoperability, and improved security for our forward deployed forces, diplomatic sites, and other U.S. interests. The practice of working "by, with, and through" our regional partners serves to enhance the legitimacy and durability of our actions and presence in the region. Most importantly, having strong partners enhances our collective capability and interoperability, allows for increased burden sharing, and improves the likelihood of success, particularly in the event of unforeseen contingencies.

Over the past year, it has been encouraging to see a number of our regional partners take a more active role in addressing threats and protecting their sovereign territories. In particular, the GCC's role in addressing regional security challenges has grown exponentially. Our Gulf partners are to be commended for their leadership and their efforts in a number of areas. The convergence of interests, namely the need to counter the threat posed by ISIL and other VEOs, has afforded a unique opportunity to strengthen ties among nations while contributing to improving stability and security throughout the region. We should do all that we can to support and enable their continued collaboration as we work to enhance our collective capabilities.

The fact is that contingency operations provide an opportunity to take a hard look at ourselves and identify areas where we may need to make improvements. They also provide opportunities to strengthen our commitment to our regional partners. They will prove increasingly important going forward as we confront the growing threat posed by ISIL, AQ and other VEOs, and as we manage the challenges posed by Iran and other malign actors in the region.

The President reiterated our strong commitment to bolstering the defense capabilities of our GCC partners during the U.S.-GCC Summit held at Camp David in May 2015. Building on that Summit, GCC members have welcomed enhanced U.S. security engagement, but implementation of commitments to follow-up on the Camp David Summit has been uneven. In some areas – including arms transfers, ballistic missile defense, and CT cooperation – we have had productive initial engagements and follow-up efforts are underway. In other areas, most notably special operations training and maritime cooperation, the GCC has been slow to act on U.S. offers of additional cooperation and assistance. Over the next year, we will continue to build on the Camp David Summit, prioritizing implementation of GCC commitments that would reaffirm our commitment to

Gulf security and also support our two top priorities: defeating ISIL and other extremists, and addressing conflicts that are undermining regional stability. Our security assurance and assistance, and the steps we are taking with our GCC partners to strengthen their capacity to deal with asymmetric threats, are designed to put them in a far stronger position so that they can engage Iran politically – clear-eyed, without illusions, and from a position of strength. We look forward to seeing the initiatives translate into credible, enduring capabilities that contribute to improved regional security and stability.

USCENTCOM Exercise and Training Program. The USCENTCOM Exercise and Training Program continues to grow in complexity and relevance with extended participation throughout the AOR during FY2015 and into the 1st Quarter of FY2016. The program affords meaningful opportunities that assist with BPC efforts, improve interoperability among partner nations, maintain U.S. readiness, and provide for key leader engagements.

During FY2015, the command executed 51 USCENTCOM and/or component command-sponsored bilateral and multi-lateral exercises. These included EAGER LION 15, which was hosted by Jordan and included naval, air, and land assets from 14 partner nations operating at 14 different locations and totaling over 8,500 personnel, including some 4,500 U.S. military and civilian support personnel. The International Mine Countermeasures Exercise is planned for the spring of 2016, taking place in over 8,000 square miles of navigable waterway and uniting more than 40 nations, including over 7,000 global military service members and over 40 naval vessels and numerous other warfighting assets in defense of the region's maritime commons. Each of the 51 exercises contributes to the readiness of U.S. and partner nation forces and the advancement of our national interests. Our exercise and training program also serves to demonstrate mutual commitment to

regional security and combined command, control, and communications interoperability (C3I). Other program impacts include military-to-military engagement, integrated staff planning, the execution of joint and combined operations, the development of coalition warfare, and the refinement of complementary warfare capabilities.

Required Capabilities and Resources. The security environment in the Central Region is likely to remain highly volatile for the foreseeable future. We must ensure that we are ready and able to conduct steady state operations, deter our adversaries, reassure our regional partners, and respond to unforeseen contingencies from a wide range of actors and VEOs.

In order to effectively protect and promote U.S. and partner nation interests in the region, USCENTCOM must maintain a strong forward presence and be adequately resourced with the necessary capabilities and force posture, including forces, equipment, and enablers. USCENTCOM's posture and presence remain the primary means for providing the National Command Authority with military options in the region. Our required capabilities include:

Forces and Equipment. Forward-deployed rotational joint forces that are trained, equipped, mission-capable, and ready to respond quickly and effectively, including fighter and airlift assets, surveillance platforms, BMD assets, naval vessels, ground forces, and cyber teams, are essential to the protection of our core interests, and supporting and reassuring our regional partners. A capable and well-supported forward presence can help to prevent conflict through deterrence, manage crisis escalation through early intervention, and provides our national-level leadership with a broad set of response options. We continue to develop a sustainable, flexible, long-term posture that provides the necessary presence, access, and partnerships to support enduring

missions and activities across the USCENTCOM AOR.

We remain increasingly concerned that our demand for replenishment of critical precision munitions continues to put a strain on Service budgets. At the same time, industry's capacity to produce key precision munitions cannot keep pace with the demand from USCENTCOM, other geographic combatant commands, as well as our Coalition partners looking to purchase munitions through existing security assistance programs in support of USCENTCOM theater-wide operations. We work with the Service headquarters to prioritize precision munitions and continue to seek increases in the procurement and AOR allocation of our most sophisticated and precise weapon systems (e.g., TLAMs, JASSM, PAC-3, ATACMs), as well as authorization for construction of munitions storage facilities within the AOR.

USCENTCOM requires continued regeneration, reset, and modernization of designated Service pre-positioned equipment capability sets. These capability sets and associated materiel represent critical enablers essential for effective force employment in support of ongoing operations and unforeseen contingencies. They allow our national-level leadership to respond to a diverse set of crisis scenarios, to include preventing disruptions to trade and security that could have disastrous impacts on the global economy. Pre-positioned equipment reconstitution and regeneration must remain a Service priority, recognizing that equipment shortfalls continue to impact indirect fire, sustainment, and troop support capabilities.

Information Operations. Information Operations (IO) remains a top priority for USCENTCOM and an important element of the broader 'whole of government' effort to counter our adversaries and protect our core national interests. Our adversaries, including ISIL, use the information battlespace

to great effect. We must actively counter this asymmetric threat, recognizing that IO will endure well beyond today's major combat and counter-insurgency operations. Of note, Iran and proxy actors actively threaten our interests and the interests of our regional partners and they are enabled by robust IO efforts. Our IO capabilities, both offensive and defensive, are designed to disrupt and counter these and other threats. They also may be used to promote the messages of moderates in order to counter the radical ideologies that fuel much of the conflict and instability that plague the Central Region. To date, investments in IO have produced a cost-effective, non-lethal tool for disrupting VEO activity across the region. We will need to build upon the existing capability and improve our effectiveness and that of our partners operating in the information battlespace.

Cyber Operations. USCENTCOM communication networks are the most critical enabler for our deployed service members and regional military partners. Our complex joint and coalition command, control, communications, computers, intelligence, surveillance, and reconnaissance (C5ISR) systems infrastructure is essential for enabling mission command, precision targeting, intelligence processing and dissemination, CT actions, IAMD, disaster relief missions, cyber, sustainment, and combat operations throughout the AOR. These missions require assured availability, integrity, and confidentiality to provide accurate data for precision weapons and navigation systems, as well as a robust communications backbone infrastructure that provides the required bandwidth for crucial aerial intelligence, surveillance, and reconnaissance (ISR) processing, exploitation, and dissemination and distributed mission command. We must also continue to develop and synchronize cyber capabilities with kinetic operations to achieve key security objectives. Congressional support is crucial to the continued improvement of cyber security and offensive capabilities necessary to provide mission assurance, deterrence and dominance in this critical and highly contested domain. A successful cyber defense requires

vigilance and continuous investment in order to sustain an advantage over adversaries that are constantly improving their cyber threat capabilities.

Integrated Air and Missile Defense. A robust IAMD capability remains increasingly important to us and our regional partners as threat technology improves and systems become more flexible, mobile, survivable, reliable, and accurate. Today, the global demand for BMD capabilities far exceeds supply. In particular, there is a need for additional upper- and lower-tier interceptors, surface and space-based surveillance and warning, and ISR platforms to seek and destroy ballistic missiles and rockets and unmanned aerial assets. USCENTCOM mitigates some of this risk through increased IAMD integration, interoperability, and burden-sharing with our partners. However, a gap does still exist that must be addressed. Providing IAMD protection to deployed U.S. forces and in support of critical infrastructure is crucial to mission success and provides a visible deterrence to regional aggression. Moreover, it signals U.S. commitment to regional partners, while providing flexibility to respond to regional contingencies. Our bases in the USCENTCOM AOR will increasingly be vulnerable to the threat posed by ballistic missiles if we continue along the current trajectory. Congress' support for the Department's investment in this area is essential.

Intelligence, Surveillance, Reconnaissance Assets. Intelligence, surveillance, and reconnaissance (ISR) capabilities remain challenged by supply-versus-demand limitations. The demand for ISR has increased substantially as a result of the Counter-ISIL Campaign, coupled with the enduring need to maintain a persistent eye on strategic risks and possible threats to critical U.S. national security interests. Meanwhile, collection in A2/AD environments continues to present a tough challenge. Our demand for multi-discipline, low-observable ISR with strike capability that can operate in adverse weather conditions and non-permissive environments is increasing. If we do

not meet the requirements, we can expect that our information dominance, situational awareness, and security posture will diminish accordingly. Although overhead systems constitute a crucial component of the intelligence collection enterprise, they lack the ubiquity, persistence, and fidelity to fulfill our ISR gaps by themselves. Low observable platforms with improved sensors and endurance are critical to a number of USCENTCOM plans, while permissive ISR systems play a key role in COIN and CT missions. With respect to Iraq and Syria, there is need for a robust ISR capability to develop and maintain situational awareness of the security environment, particularly in denied and ungoverned spaces and in the absence of a larger U.S. ground presence. While we are looking to our coalition partners to help fill some of the ISR demand, shortages do remain that must be addressed.

Required Authorities and Resources. The realities of the current fiscal environment continue to impact USCENTCOM HQs, our five component commands, established combined/joint task forces, and 18 country teams. Provided the right authorities and resources, our world-class Civ-Mil team can and will successfully accomplish any mission. With that in mind, we sincerely appreciate Congress' continued support for key authorities and appropriations needed to sustain current and future operations and to respond to unforeseen contingencies. The required authorities and resources listed below will enable USCENTCOM to shape positive outcomes for the future.

Iraq Train & Equip Fund. The Iraq Train and Equip Fund (ITEF) includes a multi-layered approach to assist the Iraqi military and other associated security forces by contributing to the Coalition effort to fill urgent equipment shortfalls and training deficiencies. As of mid-December 2015, we trained and/or equipped more than 19,000 Iraqi Security Forces, including Counter-terrorism Service (CTS), Iraqi Special Operations Forces (ISOF), Peshmerga, and Sunnis through

ITEF-related activities. Most graduates of the ISOF Commando Course in Area IV and BPC-trained Peshmerga battalions have been involved in combat operations since completing Coalition-led training. These trained forces appear to be performing better than their contemporaries who have not undergone Coalition-led training. U.S. support in FY2017 is essential to the success of the military campaign in Iraq.

Syria Train & Equip Fund. The forces we train and equip continue to show resolve and effectiveness in the fight against ISIL inside of Syria. A stand-alone fund that provides the flexibility to adapt to the changing battlefield environment while permitting the execution of our strategy to train, equip, resupply, and enable forces fighting ISIL in Syria is critical to future success. Such a fund would enable streamlined funds flow, transparency, accountability, and responsiveness that positions us to reinforce success as it occurs on the battlefield.

The Afghanistan Security Forces Fund (ASFF). We continue to see tremendous achievements made possible by the ASFF as the ANDSF and the Afghanistan Security Institutions (ASI) steadily improve. While our ASFF budget request has decreased by 70 percent since 2011, the capabilities and activities enabled by this appropriation remain critical to continued success in Afghanistan. Furthermore, our support reflects U.S. confidence in the ANDSF's ability to develop and mature into a capable, credible, sustainable, and independent force. The FY2017 ASFF budget request for just under \$3.5 billion continues to posture the ANDSF for long-term sustainability. The Afghans greatly appreciate U.S. support, they are responsive to our advice, and they understand that funding is neither unconditional nor indefinite.

Foreign Military Financing and Foreign Military Sales. Our need for continued Congressional

funding of FMF programs that support USCENTCOM security cooperation objectives cannot be overstated. The Central Region accounts for nearly half of all global FMS. Our partners in the region want U.S. equipment because they recognize that it is the best in the world. It also represents a very effective means for establishing long-term relationships between the U.S. and our partner nations and ensures greater interoperability between our militaries. We appreciate Congressional support for interagency initiatives designed to streamline the FMS and FMF process. We also need our regional partners to do their part to ensure the timely execution of all FMS requests.

Excess Defense Articles (EDA)/ Foreign Excess Personal Property (FEPP). The EDA program represents an integral component of our BPC efforts and has proven beneficial in our engagements with our regional partners. We have reaped the benefits of this authority several times in the last year, enabling us to support requirements in Afghanistan, Iraq, Jordan, Lebanon, and other countries located within the USCENTCOM AOR or participating in operations with U.S. forces. Several other EDA transfers to the UAE and Egypt are pending. In the same light, the FEPP authorization has allowed us to transfer non-military equipment acquired as part of our base closures and reductions to Iraqi and Afghan security forces, and government ministries in Afghanistan, Kuwait, and the Kyrgyz Republic.

Coalition Support. The Coalition is central to the power of our operations and has never been stronger or more responsive than it has been over the last 18 months. The flexible authorities and funding that Congress continues to provide directly enables the size and diversity of the Coalition, which is key to its effectiveness. Together, the Coalition Support Fund, Coalition Readiness Support Program, and Lift and Sustain facilitate broad participation in combined military operations,

thereby reducing the burden on U.S. forces and enabling activities that would otherwise not be possible.

Commander's Emergency Response Program (CERP). Regardless of the size, shape, or mission of U.S. forces, your continued support for CERP is essential as it provides an invaluable tool to commanders. CERP funds are routinely the only time-sensitive means to respond to unanticipated events and requirements, implement small-scale efforts that provide immediate and direct benefit to local populations to enhance protection of U.S. forces, and enable U.S. forces to make condolence payments for the loss of life or property damage.

Military Construction (MILCON). We continue to leverage existing infrastructure and host nation funding, as well as maritime posture and reach-back capabilities to meet steady state and surge requirements. In some cases, MILCON is still required to expand infrastructure capabilities to facilitate sustainment support for U.S. forces and operations. Given our adversaries' continued development of A2/AD capabilities, it is imperative that we facilitate the dispersion and hardening of key infrastructure at our major operating hubs and spokes.

Long-term C4 Sustainment Plan. USCENTCOM, our Service Components, Combined Joint Task Forces (CJTF), and our deployed warfighters rely heavily on communications systems to provide critical Joint and Coalition command and control, communications, computers, intelligence, surveillance, and reconnaissance (C5ISR) and logistics services across the USCENTCOM AOR. Without a diverse and survivable communications infrastructure and bandwidth delivery, via both satellite communications and terrestrial fiber leases to the current U.S. force posture locations, all current and future Mission Command Operations are at great risk.

Continued resource support is essential to maintaining the current U.S. force presence in the USCENTCOM AOR, and to enable rapid support for any future contingency operations.

The U.S. Central Command Team. The outstanding men and women who make up the USCENTCOM team continue to do tremendous work in support of the command's broad mission encompassing a vast and highly volatile geographic area. They shoulder great responsibility and their day-to-day actions are of enormous consequence. We have an obligation to ensure that they are resourced appropriately and have the necessary tools and equipment, a responsive support structure, and safe, secure, and respectful environments to live and work in. We also take very seriously our obligation to our families; we could not do what we do without their support. They are important and valued members of our USCENTCOM team.

The team also benefits from the unique capability provided by our Coalition Coordination Center, which consists of more than 200 foreign military officers from nearly 60 partner nations. USCENTCOM is the only geographic combatant command with this unique capability, and it continues to pay enormous dividends in terms of information sharing, collaboration, and outreach.

Conclusion. Our overarching goal at USCENTCOM is to move the Central Region in the direction of increased stability and security. It is an ambitious task and success will require that all elements of the USG and the international community work together in pursuit of this shared objective. We are seeing the power of such collaboration in the ongoing fight against ISIL in Iraq and Syria. The enemy's capability has been greatly degraded over the past 18+ months and that reflects the efforts of the indigenous forces supported and enabled by the 66-nation Counter-ISIL Coalition. Much work remains, but we do see progress being made across the breadth and depth of

the battlespace and throughout the USCENTCOM AOR. Going forward, we will take direct military action where necessary to counter malign actors and activities that pose a threat to our core national interests and the interests of our partner nations. At the same time, we will continue to support the governments and people of the region in their efforts to build needed capacity, enabling them to take a more active and pronounced role in providing for the security of their sovereign spaces. This will serve to increase burden-sharing among nations, strengthen partnerships, and expand cooperation. Ultimately, these various efforts will enable us to improve stability and security across the strategically-important Central Region.

Today, more than 84,000 of the very best Soldiers, Sailors, Airmen, Marines, Coastguardsmen and Civilians assigned to or associated with U.S. Central Command are selflessly serving in difficult and dangerous places around the globe. They continue to do an exceptional job in support of the USCENTCOM mission and our Nation. Our people are our most important assets. We are enormously proud of them and their families. They are and will remain our foremost priority.

USCENTCOM: Ready, Engaged, Vigilant!

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

TUESDAY, MARCH 22, 2016.

DEFENSE HEALTH PROGRAMS

WITNESSES

VICE ADMIRAL RAQUEL C. BONO, DIRECTOR, DEFENSE HEALTH AGENCY

GENERAL NADJA WEST, SURGEON GENERAL, UNITED STATES ARMY

VICE ADMIRAL CLINTON F. FAISON, III, SURGEON GENERAL, UNITED STATES NAVY

LIEUTENANT GENERAL MARK A. EDIGER, SURGEON GENERAL, UNITED STATES AIR FORCE

OPENING STATEMENT OF CONGRESSMAN FRELINGHUYSEN

Mr. FRELINGHUYSEN. Good morning. The committee will come to order. This morning, the committee will hold an open hearing on the fiscal year 2017 budget request for the Defense Health Program. I can't imagine anything more important than this, the men and women who serve us so bravely and so proudly.

I would like to welcome the Director of the Defense Health Agency, Vice Admiral Raquel Bono, welcome, who was named Director last fall. Admiral Bono, this is your first time testifying before our committee. We are looking forward to hearing how the relatively new Defense Health Agency is operating under your leadership.

Admiral BONO. Thank you.

Mr. FRELINGHUYSEN. I would also like to welcome three service surgeon generals, Lieutenant General Nadja West of the Army. Welcome. Vice Admiral Clinton Faison, III, of the Navy, and Lieutenant General Mark Ediger—is it Ediger? Ediger—excuse me. I apologize—from the Air Force. All three of you are joining us for the first time, which will provide us with a fresh perspective on how the services are managing the resources of the Military Health System, and how the Army, Navy, and Air Force medical needs and the Army, Air Force, and Navy's medical needs at home and abroad. Our Nation's ability to respond to global emergencies is impacted greatly by our military's medical readiness.

We must ensure that our soldiers, sailors, Marines, and airmen have access to top-quality medical care, including education and prevention programs, which will allow them to be ready to fight. At the same time, we must also provide their families the peace of mind that they are cared for while their loved ones are protecting our country.

The committee would like to congratulate all of our services for the remarkable improvement in the survival rate of our troops on the battlefield. Your commitment to medical care in theater, as well as research and treatment back home, has substantially improved the chances that our warfighters will actually get better.

And many live as a result of the extraordinary things that are done by trauma surgeons and others among you.

The committee also supports a robust funding level for the Defense Health Program to meet the commitment to provide the very best medical care to the servicemen and women who defend our country on a daily basis. We are particularly interested to hear what you have been doing for women in uniform, as they now make up over 15 percent of active duty members. Of course, today's conflicts produce invisible wounds. We look forward to hearing about recent efforts to address suicide prevention, post traumatic stress syndrome, traumatic brain injury, and mental health issues in general. However, as has been the case for the last decade, the Department faces a challenge with the growing cost in long-term sustainability of the military health system. The fiscal year 2017 budget request is approximately \$48.8 billion, nearly 10 percent of the entire defense budget.

And once again, this budget request assumes savings associated with several TRICARE programs proposals, proposals that must be approved by Congress that have been rejected over the last several years. We are interested to hear how your current proposal has been improved from previous budgets to obtain the needed support of Congress. The committee also remains keenly interested in the progress of electronic medical records, health records, and the level of interoperability between the Departments of Defense and the Department of Veteran's Affairs.

Last year, DoD awarded a \$4.3 billion contract to improve interoperability. But I want to be clear, this committee considers interoperability between the departments a top priority, and is exceedingly frustrated with the lack of progress after several years, and the expenditure of several billions of taxpayers' dollars, both on the DOD and VA side of the issue.

Again, the committee thanks you for appearing before the committee to discuss these important programs and others. We look forward to your testimony, and to an informative question-and-answer session on other topics, including congressionally-directed medical research, which we are heavily invested in, some very important investments, and the health effects of potential contamination at various installations domestically and around the world that affect the health of those that serve our country.

Before we hear your testimony, I would like to turn to my good friend, Ranking Member Peter Visclosky, for any comments he may wish to make.

RANKING MEMBER VISCLOSKY OPENING REMARKS

Mr. VISCLOSKY. Well, I welcome the witnesses as well. I thank the chairman for holding the hearing, and do associate myself very strongly with his remarks about interoperability. It is my understanding each of you are testifying before us today for the first time. We have been working on this issue for 17 years. We won World War II in 4 years. And I am amazed we are still talking about this. So I absolutely, categorically, share the chairman's frustration and would hope somebody hits the gas. My understanding is we are going to continue to make progress through the first part

of the next decade, which I think that is totally unacceptable. But again, thank you for being here.

Mr. FRELINGHUYSEN. Thank you, Mr. Visclosky.

Admiral Bono, Director of the Defense Health Agency, you are our first witness this morning. Welcome aboard.

Admiral BONO. Thank you, sir.

Mr. FRELINGHUYSEN. And your full remarks will be put in the record, but anything you would like to say to us, please proceed. Thank you.

SUMMARY STATEMENT OF ADMIRAL BONO

Admiral BONO. Thank you, sir. Chairman Frelinghuysen, Ranking Member Visclosky, members of the subcommittee, thank you for the opportunity to appear here today. I am pleased to represent the Defense Health Agency, and discuss the proposed 2017 budget, and priorities for the Military Health System. The budget we have presented is fully aligned with our enduring commitments around the globe, and with the strategic objectives of the Department. As the Director of the Defense Health Agency, my primary goals include providing value-added support to the military services as required to accomplish their missions, developing our capabilities as a combat support agency, and optimizing the internal operations of the agency.

The MHS has fully embraced an enterprise management approach to our health systems operations. The DHA and the service medical departments have developed shared strategies, enterprise support activities, and leadership development programs that benefit the system as a whole. As a part of the DHA's effort to optimize our operations, we are implementing a common cost accounting methodology throughout the MHS to improve accountability and transparency to the Department, services, Congress, and the public with improved insight into how resources are allocated in support of our mission.

For fiscal year 2017, DOD is requesting \$33.5 billion for the Defense Health Program, representing a 1.5 percent increase from last year's budget request. Almost \$25 billion, or 78 percent, of our request directly supports patient care delivered either in our military hospitals and clinics, or in the private sector. Congress has granted the Department carryover authority each year, which has provided much-needed flexibility to manage issues that emerge during the year of budget execution. Carryover authority allows DOD to maintain better funding flows to minimize disruption of healthcare services to our beneficiaries. That authority has been extremely helpful to the Department, and we request that it be continued in fiscal year 2017.

We have a number of important priorities for fiscal year 2017. Last August, the Department awarded a multi billion dollar contract for a new electronic health record. Our decision to pursue a commercial, off-the-shelf product provides DOD with a system that supports our readiness mission, accelerates our journey to high reliability, allowing ongoing private sector innovation to be incorporated into future releases, and support our interoperability objectives in sharing information with both the VA and with private sector providers.

We will begin our rollout in the Pacific Northwest early in the new fiscal year. Our fiscal year 2017 budget also proposes to modernize some TRICARE programs. Our modernization plan raises customer service performance levels, further expands choice, helps direct patients to the highest quality of care, and continues to offer value in an out-of-pocket cost to our people that is lower than virtually any health plan in the country. Although costs have stabilized in recent years through both management actions on part of the Department and a general slowdown in U.S. healthcare inflation, we are beginning to see medical inflation rise, particularly in the area of prescription drug prices. We are monitoring our spending closely and taking action to manage this growth internally.

The fiscal year 2017 budget represents a balanced, comprehensive package of reforms that are directly aligned with our responsibilities. We look forward to working with you over the coming months to further refine and articulate our objectives in a manner that improves value for everyone. MHS continues to serve as a unique and indispensable national security asset. The DHA is now an integral and integrated part of the MHS. And we are proud to contribute to the modernization of this system through joint action. I am honored to represent the men and women of the Defense Health Agency, and I look forward to answering any questions you may have. Thank you.

[The written statement of Admiral Bono follows:]

Prepared Statement
of
Vice Admiral Raquel Bono
Director, Defense Health Agency

REGARDING
THE MILITARY HEALTH SYSTEM

BEFORE THE
HOUSE APPROPRIATIONS COMMITTEE
DEFENSE SUBCOMMITTEE

MARCH 22, 2016

Not for publication until released by the Committee

OFFICE OF
LEGISLATIVE
AFFAIRS

Chairman Frelinghuysen, Ranking Member Visclosky and members of the Subcommittee, I am pleased to represent the Defense Health Agency (DHA) and present our medical program funding request for fiscal year 2017. I am honored to represent the dedicated military and civilian medical professionals in the DHA who join me in collaborating with the Military Services, providing direct support to our combatant commanders, and facilitating health care services to the many individuals who rely upon us for their care. I am also pleased to represent the Assistant Secretary of Defense (Health Affairs) (ASD(HA)) who has overall responsibility for the Defense Health Program (DHP) appropriation.

The budget we have presented is fully aligned with our enduring commitments around the globe and with the strategic objectives of the Department, in which the Military Health System (MHS) is a vital component of our national security strategy through our primary mission of readiness. In addition to providing an integrated and indispensable system of health services to the 9.4 million uniformed and other military beneficiaries worldwide, we sustain the clinical skills of our medical forces to ensure that we have a medically ready force and a ready medical force.

As the Director of the Defense Health Agency, which achieved full operational capability on October 1, 2015, my primary goals include providing value-added support to the Military Services as required to accomplish their missions, developing our capabilities as a Combat Support Agency and optimizing the internal operations of the DHA. These lines of effort will enhance the DHA's effectiveness in managing and executing the DHP appropriation as directed by the ASD (HA); managing shared services, to include the TRICARE health plan; supporting the coordinated management of the 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).

Over the last two and half years, the MHS has fully embraced an enterprise management approach to our health systems operations. Collectively, the DHA and the Service's Medical Departments have developed shared strategies, policies, enterprise support activities, and leadership development programs that benefit the system as a whole. Our approaches to access, quality and safety are designed and executed in a collaborative, interdependent manner. Operationally, where we work together in deployed environments or in multi-service markets, we are moving to a more integrated operating model that facilitates support to line commanders, Service members and our patients.

While the DHA's establishment targeted savings and efficiencies through aggregation of commonly performed functions, the DHA is also designated as a Combat Support Agency (CSA), by which the DHA is also accountable to the Chairman, Joint Chiefs of Staff and the combatant commanders. Our ability to serve the operational needs of the Combatant Commands directly, as well as, through and with the Military Services is undergoing rigorous development and refinement as we prepare for our first biennial Chairman's CSA assessment in the coming year. Our efforts to mature our CSA are pursued collectively with the Services, but are also targeted to identify those capabilities that are uniquely provided by the DHA.

As part of the DHA's effort to optimize our operations, we are implementing a common cost accounting methodology within the DHA to improve accountability and transparency to the Department, the Services, Congress, and the public with improved insight into how resources are allocated in support of our mission. This effort will complement our resource management

responsibilities to the Assistant Secretary of Defense (Health Affairs) who has financial authority, direction and control of the Defense Health Program. DHA will assist putting together the annual budget and distributing resources to the Services and other organizations to execute our shared medical mission.

For Fiscal Year 2017, DoD is requesting approximately \$33.5 billion for the Defense Health Program, representing a 1.5% increase from last year's budget request. Almost \$25 billion, or 78%, of our request directly supports patient care – delivered either in our military hospitals and clinics or in the private sector. Of this \$25 billion, approximately \$9.2 billion supports direct care (exclusive of military personnel salaries) and \$15.7 billion is spent on purchased care.

Congress continues to grant the Department carryover authority each year, which 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 complexity in medical services delivery, costs, and medical claims management related to our TRICARE program, carryover authority allows DoD to maintain better funding flows to minimize disruption of health care services to our beneficiaries. That authority has been extremely helpful to the Department, and we request that it be continued in FY 2017.

The FY 2017 budget not only allows us to meet our global obligation in support of National Security goals, it also supports the core values of the MHS strategic plan and our strategic framework of the Quadruple Aim: improved readiness, better health, better care, and lower cost.

The Military Health System: Readiness at the Center of our Strategy

Events of the past year reinforce the fundamental need to maintain a high state of readiness for all types of threats. Our continuing obligations of combatting terrorism around the world in multiple areas of responsibility, the threats posed by outbreaks of infectious disease, and our need to expand partnerships in the Pacific region highlight just some of the MHS' responsibilities and capabilities in providing medical support to military commanders for a wide range of emerging and evolving threats.

Over the last decade, the MHS performed superbly in providing combat casualty care and life-saving treatment, achieving historic outcomes in saving lives and preventing injuries and illnesses. Lessons from fourteen years of battlefield medicine, along with transformative changes in the practice of medicine in the United States, require new approaches to how we ensure medical readiness and how we best meet the expectations of our beneficiaries. We are continuously reevaluating and improving our approach to maintaining the health of the force, sustaining a ready medical force, and delivering quality healthcare to our beneficiaries – on the battlefield, on military installations, or in civilian healthcare settings.

We remain 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. Our proposed FY2017 budget 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.

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.

Our readiness mission extends to the long-term investments we make in the area of global health. Following last year's response to the Ebola crisis in West Africa, the MHS is again responding to another infectious disease outbreak – Zika – in South and Central America. Our formidable capabilities in surveillance, prevention, detection, and treatment of novel diseases are again providing the country and the world with indispensable support to combat this threat. We continue to partner with host-nations around the globe to build capacity and assist other nations in their preparedness to respond to all types of health crises.

Another critical support component of our readiness mission is the fielding of a modernized Electronic Health Record (EHR). In August 2015, the Department achieved a major milestone when it awarded a multi-billion dollar contract for a new EHR. Our decision to purchase a commercial, off-the-shelf product provides DoD with a system that supports our readiness mission, accelerates our journey to high reliability, allow ongoing private sector innovation to be incorporated into future releases, and support our interoperability objectives in sharing information with both the VA and with private sector providers. The DHA is working closely with the Service Medical Departments and with the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics to successfully implement the EHR. We will begin our roll-out in the Pacific Northwest at the end of this calendar year. The DHA 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.

We also continue our close collaboration with the Department of Veterans Affairs (VA). DoD and the VA continue to share more information than any two other large-scale health systems in the country. Over 75,000 providers in both agencies 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, through the Joint Legacy Viewer. Additionally, an increasing number of community partners are now also able to view service member and veteran records through JLV.

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. 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.

Meeting the requirements for military medical personnel readiness is also tightly linked to providing health care within our system of military medical treatment facilities (MTF) for our beneficiaries, whether they are active duty Service members, family members or our retirees and their families. In 2015, the Military Compensation and Retirement Modernization Commission (MCRMC) acknowledged the challenges to sustain the readiness of our medical forces. The Department has accepted a number of recommendations from the MCRMC and has launched a process to identify the essential medical capabilities needed to support the full spectrum of military operations.

In 2016, we plan to expand choices for our beneficiaries – allowing them the opportunity to more freely seek care from either military or civilian providers. There are a number of ways by which we can expand our service offerings. For example, retirees who are Medicare eligible can receive care in MTFs. Caring for these types of patients helps ensure military medical provider readiness. Likewise, resource sharing agreements with the Department of Veterans

Affairs allow Veterans to receive care within MTFs, giving our military medical providers exposure to a more complex set of patient health needs. Other unique arrangements, such as civilian access to our Level I Trauma System and burn center at San Antonio Military Medical Center, ensure that our providers remain current with best practices in trauma and burn care – important skills to maintain for military operations. In other external resource sharing arrangements, military providers obtain admitting privileges at nearby civilian institutions, where they can provide a wider range of care for our beneficiaries, also allowing for clinical skills maintenance. Civilian partnerships have allowed training opportunities for thousands of uniformed personnel.

Better Health

MHS modernization recognizes that our health system can be made even better and that the delivery of accessible, high quality care, matched with exceptional customer service, is part of our mission, not secondary to it.

Our TRICARE modernization efforts offer a significant advancement in how the MHS will be a leader in healthcare delivery and customer service in the country. Our modernization plan raises customer service performance levels; improves health; further expands choice; simplifies the process of getting care and offers new ways to access care; ensures access to the latest healthy technology; helps direct patients to the highest quality of care; and continues to offer value at an out-of-pocket cost to our people that is lower than virtually any health plan in the country.

DoD has already begun its multi-year modernization of the TRICARE program. First, we will continue our efforts to prioritize health ahead of healthcare. We are embedding the lessons

learned from Operation Live Well and the Healthy Base Initiative in 2016 in order to further our efforts to improve health and wellness.

TRICARE has always had excellent coverage of important preventive services – and we are making it better. Most of our preventive services are available without any cost share. For example, any beneficiary (Prime / Standard / TRICARE For Life) can receive required immunizations from any provider, to include retail clinics. We are going to expand the ease and coverage of even more services in the coming year and ensure our preventive services plan is fully aligned with the Affordable Care Act provisions.

TRICARE Modernization: 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. 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.

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.

Over the past year, we have refined our enterprise dashboard and identified focus areas to drive specific improvement in select measures.

We are using the information gleaned from our P4I system and from our other measurement instruments to drive change in how we ensure access, quality, safety, satisfaction, and better manage our costs. Here are some of the initiatives we are introducing to effect this change.

Access – Easier, Patient-Centered. We are overhauling every aspect of our how our patients receive care – whether primary or specialty care. Our patients deserve high quality care delivered safely and expeditiously. In our internal review, we heard that patients are concerned about being told to call back for an appointment and are dissatisfied with delays in receiving care because of a cumbersome pre-authorization and referral system.

During the MHS Review, we found that MTFs generally meet defined access to care standards. However, there was a great deal of variation – there were MTFs that did not meet these standards and others who consistently performed better than the standard. The same access standards apply to both MTF provided care and TRICARE Prime care delivered in the private sector. Assessment of purchased private sector primary care access is largely determined from patient experience surveys. According to survey data, individuals who use TRICARE Standard or Extra are more satisfied with the care provided when compared to those who use TRICARE Prime. In 2016, we will be exploring beneficiary concerns more deeply by engaging focus groups on specific subjects.

Recent Congressional testimony from beneficiary groups suggests that the lower satisfaction with TRICARE Prime is related to the inability to get an appointment at an MTF and

to the associated referral and authorization processes. NDAA 2016 called for improving access in the following ways: 1) make it easier for beneficiaries to move among the identified TRICARE managed care support contract regions; 2) allow TRICARE Prime beneficiaries access to urgent care centers without a preauthorization requirement under a pilot project; and 3) expand the public transparency of quality, safety and satisfaction information.

We have taken a number of steps to improve access to care. We implemented “first call resolution” policies ensuring that the appointment or referral will be completed during the initial call for beneficiaries enrolled to our patient-centered medical homes. Dr. Woodson issued initial guidance for simplified appointing and first call resolution on June 2, 2015. We have already begun to see the positive effect of these changes from the patients’ perspective. Performance monitoring will ensure compliance and survey data is letting us know if our beneficiaries are satisfied with the results.

We have put a number of other policy and operational actions into motion this year.

The Services and DHA undertook a listening tour to MTFs and with beneficiaries around the country. We learned a great deal from these visits. In response, we are extending hours to evenings and weekends in a number of our MTFs. We have increased the number of urgent appointments by 32% since May 2015, and we have expanded the overall number of appointments by more than 11%.

Part of our enterprise approach is to effectively use the demonstration authority that Congress has provided us and pilot new approaches to patient care delivery. We recognize that patients, particularly those with complex or chronic medical conditions, require ongoing services from a mix of primary care and specialty providers. Working with Dr. Woodson and the

Services, we will explore demonstration projects in which we evaluate the use of “integrated practice units (IPUs)” into our medical homes. The most important feature of the IPU is that it organizes medical services around the patient’s needs and medical condition rather than organizing medical services from the health system’s perspective.

Contemporary access to healthcare is no longer confined to the four walls of a doctor’s office or dictated by drive time standards. Instead, information technology offers a variety of opportunities for patients to engage the medical system. Providers can extend their reach to treat or advise their patients beyond the clinic’s open hours or without requiring distant travel. Furthermore, many of these modalities offer new opportunities to support the warfighter wherever they are deployed. In January 2016, the ASD(HA) expanded policies to encourage greater use of telehealth and permit its connection to the patient’s home. The new policy will enhance our abilities to provide telemedicine services and expand access for our beneficiaries. We are also working closely with the Department of Veterans Affairs through the DoD-VA Tele-Health Working Group to coordinate telehealth service support to our shared population.

In 2014, we established a Nurse Advice Line (NAL) for all of our beneficiaries. This new capability now fields 1,800 calls per day (significantly higher than we projected, and higher than most commercial health plans). Call volumes are increasing each month. Many patients, after engaging with the NAL, do not subsequently seek emergency care, but wait to be seen at their Primary Care Medical Home at the MTF. For those whose symptoms suggest a true emergency, the NAL activates the emergency medical system and stays on the phone until help arrives. Additionally, the 24/7 NAL is integrated with our appointing and referral systems, ensuring beneficiary have round-the-clock access to healthcare advice and appointing services.

The TRICARE program has leveraged web-based technologies to provide beneficiaries with information, secure ways to enroll for health care services, review claims, pay bills, and even make appointments. Patients can communicate with their providers using secure messaging services and download their medical records using Blue Button technology. We are ensuring that all primary care providers and most specialists use and promote the secure messaging capability with their patients. The new electronic medical record will add even more functionality for patients.

In 2016, the MHS will begin to deploy smart phone applications that will make it easy for our patients to contact their providers, access all of the TRICARE Online capabilities, and find useful information about the nearest MTF. DoD will also implement a pilot program that allows enrollees to access urgent care centers without requiring a preauthorization, consistent with NDAA 2016. I am confident that these additional means of access – both virtual and physical – will have a significant, positive effect on satisfaction with accessibility and customer service among our Prime population.

For patients who receive referrals from their primary care providers, we are streamlining referral processes so that patients will be advised of referral approval in a more timely way.

Finally, in 2016, we will also award the TRICARE-2017 (T-2017) contracts, with healthcare delivery slated to begin in 2017, allowing for a 12-month transition period between contractors. T-2017 is another element in our efforts to simplify program management, reduce administrative costs, incentivize value and ensure quality with our network providers. We have also streamlined processes for portability, helping ease beneficiary transition as they move from

installation to installation. We will reduce TRICARE regions from three to two, eliminating unnecessary administrative overhead for both the government and contractors.

Quality of Care. The MHS Review found that the MHS performed well along the quality and safety parameters studied. However, similar to our findings on access, we found wide variation across MTFs and across safety and quality measures. We have implemented a number of important measures to achieve that objective. In 2015, we standardized quality and safety measures across the enterprise and can now compare performance across all MTFs. We are now amending our TRICARE contracts to establish similar reporting for private sector care. Senior leaders monitor performance on a monthly basis.

MTF commanders are being provided with tools to both educate their staffs and monitor their performance. We are expanding participation in the American College of Surgeons (ACS) National Surgical Quality Improvement Program (NSQIP) to all MTFs with surgical capabilities. This partnership provides these MTFs with insights into improving surgical mortality and morbidity. In the coming months, we will provide the Institute for Healthcare Improvement's (IHI) Global Trigger Tool (GTT) to all MTFs to proactively assist in identifying potential safety concerns.

When serious chronic illness, medical conditions, special needs or injuries require comprehensive coordination of care across multiple providers, beneficiaries will be assured of a personal case manager, or Lead Coordinator, who will assist with coordinating care wherever it is provided – with other military hospitals, in the civilian sector, or with the VA. The Lead Coordinator will also assist with the coordination of non-medical benefits and services.

The Department is going to adopt or introduce value-based payment demonstration projects in 2016. In 2015, we opened discussions with the Centers for Medicare and Medicaid Services (CMS) to explore how we can participate in several of the innovative payment reform initiatives that CMS has introduced over the past several years. By aligning efforts with other federal initiatives focused on value-based payment, we can leverage the extensive research that led to these demonstrations. And, the complex rules related to payment formulas have been incorporated into contractor-operated, federal claims processing systems. Several of the bundled payment demonstration projects – such as the recent CMS demonstration around bundled payments for joint replacements -- hold the most promise for the populations that we serve.

Comprehensive information on service delivery – access, quality, safety and satisfaction – is available online to the public for the military health system as a whole with some limited information visible at the MTF level. Additional information will soon be available at the MTF, consistent with the direction from the Secretary of Defense and the NDAA 2016. We have engaged and will continue to engage our military and veteran beneficiary organizations in how we might present this information in ways that make the information more relevant and easier to understand. And, the DHA is working with CMS to place MHS performance information on Hospital Compare to provide another outlet where our performance information will be publicly shared.

The MHS has identified six communities where there is a significant military medical presence by more than one Service Medical Department. We refer to these communities as “multi-service markets.” Collectively, over 40 percent of all care we deliver in DoD medical facilities occurs in these markets and an equally significant amount of care is purchased from the private sector in these markets. We have provided senior medical leaders in these markets with

enhanced authorities to coordinate service delivery; standardize appointing and referral policies; and reallocate local resources to best meet beneficiary needs. We have achieved some early successes in these markets relative to access to care and patient satisfaction.

Health Benefits and Technological Advances – Leaning Forward. Healthcare is changing fast. And, with the generous support of Congress, TRICARE has been made more flexible and more adaptive to the changes in technology to advance health. DoD now has greater authorities to approve emerging technologies for coverage. We have already started this process – for laboratory-developed tests and for other promising medical procedures. Where the medical evidence is present, we will look to do more.

We are ensuring that TRICARE's mental health and substance use disorder benefit meets current standards of care and – like our preventive services benefits -- align with the Affordable Care Act, Mental Health Parity Act and other federal health legislation. We have already eliminated the limit on inpatient behavioral health bed days, and we will finalize policies to ensure parity in other areas in 2016.

Support for Children with Special Needs. Over the last several years, we have modernized TRICARE and the Extended Care Health Options (ECHO) program, expanding services to retiree families and eliminating financial caps on services. We are continuing to improve our complex case management services, with a particular focus on the unique needs of military families and frequent relocations.

TRICARE Support. In October 2015, the DHA reached Full Operating Capability. The TRICARE Health Plan is one of the principal enterprise support activities – or shared services – for which the DHA is responsible. Working closely with the Service Medical Departments, we

are better able to coordinate policy and operational decisions in support of TRICARE changes in a more agile and transparent manner. Our other enterprise support activities – pharmacy operations, health information technology, medical logistics, health facilities, public health, medical research and development, medical education and training, contracting, and budget & resource management – also provide essential support services to both combatant commanders and the Services.

I would like to highlight just one element of how this enterprise support better enabled critical support in a crisis. In 2015, the MHS witnessed an alarming escalation in prescription drug costs, largely related to an increase in utilization of compound medications. The DHA monitoring system identified potential fraudulent activity; recommended and concurrently implemented a series of enterprise-wide screening procedures in our military pharmacies, mail order and retail network that precipitously and safely reduced inappropriate fills of compound drug prescriptions; and coordinated with the Department of Justice in the prosecution of fraudulent actors and the recovery of funds.

Cost -- Responsible, Moderate Changes in Beneficiary Cost-Sharing. The full complement of improvements and services that we have put forward also requires investment. Most of these additional costs will be borne by the Department. For example, the implementation of shared services led the Department to reduce defense health costs by \$3.5 billion over five years, savings that have already been decremented from our proposed budget.

Since TRICARE and then TRICARE For Life were introduced, the percentage of care delivered in the private sector rather than in DoD medical facilities has grown. Today, over 60% of all DoD-funded health care is delivered in civilian settings through TRICARE. The

integration of care delivered in military and civilian settings is – and will remain – a necessary feature of military medicine. TRICARE offers the most efficient means of integrating that care. Over the last several years, overall defense health program costs have been well managed, with a flat to declining budget.

Although costs have stabilized in recent years through both management actions on the part of the Department and a general slowdown in US healthcare inflation, National Health Expenditure projections, a product of the Centers for Medicare and Medicaid Services, anticipate a gradual increase in per capita health care costs to roughly 5 percent in coming years. Within the MHS, we are beginning to see medical inflation rise, particularly in the area of prescription drug prices. We are monitoring our spending closely, and taking actions to manage this growth internally, but fee adjustments are necessary in the years going forward.

The Department has submitted several reform plans since 2005, largely to control health care costs. Last year, the submission of the President's Budget (PB) 2016 benefit reform proposal was relatively well received. The PB 2017 health benefit reform proposal leverages the PB 2016 proposal but makes some important adjustments. Following are the attributes of the PB 2017 proposal.

- A simpler system — provides beneficiaries with two care alternatives and overall less complexity in their health plan. TRICARE Select is an HMO-like (managed) option that is MTF-centric and TRICARE Choice is a PPO-like (unmanaged) option offering greater choice at a modestly higher cost.
- Economically emphasizes TRICARE Select leveraging MTFs as the lowest cost option for care to make full use of Direct Care capacity and also provides needed workload for

military providers for readiness training.

- No change for active duty — who would maintain priority access to health care without any cost sharing but would still require authorization for civilian care.
- Copays — will depend on beneficiary category (excluding active duty) and care venue; it is designed to minimize overutilization of costly care venues. There would be no copays in MTFs to facilitate the effective use of military clinics and hospitals and thereby improve the efficiency of DoD's fixed facility cost structure. There would be fixed network copays for the TRICARE Choice option without a deductible.
- Participation fee — for retirees (not medically retired), their families, and survivors of retirees (except survivors of those who died on active duty). They would pay an annual participation fee or forfeit coverage for the plan year. There is no participation fee for active duty members or their family members. There is a higher participation fee for those retirees choosing the TRICARE Choice option (\$200 higher).
- Open season enrollment — similar to most commercial plans, participants must enroll for a 1-year period of coverage or lose the opportunity.
- Catastrophic caps — which have not gone up in 10 years would increase slightly but still remain sufficiently low to protect beneficiaries from financial hardship. The participation fee would no longer count towards the cap.
- Medically retired members and their families and survivors of those who died on active duty would be treated the same as Active Duty family members (ADFMs), with no participation fee and lower cost shares.
- To ensure equity among ADFMs, the proposal offers all ADFMs a no cost medical/surgical care option regardless of assignment location and zero copays for

ADFM emergency room use, including in the network.

- The Department will offer a second payer option with a lower fee for those with other health insurance.
- Fees and copays will be indexed at the National Health Expenditures (NHE) per capita.

There have been no changes to most cost-sharing elements of the TRICARE Program since it was established in 1994. At the time TRICARE was introduced, retiree family beneficiary out-of-pocket payments accounted for approximately 27% of total TRICARE health care costs. Today, retirees and their families only bear 8% of the costs, and our proposal raises that share to 10.5% of total costs. For active duty families, the changes are even smaller, moving out-of-pocket costs from 1.4% of total costs to 1.6%. By any measure, these changes are modest, responsible adjustments that place the Department's health program on a stable, long-term financial footing and preserve the foundation of the health system and its platforms for ensuring a medically ready and ready medical force.

The MHS continues to serve as a unique and indispensable national security asset. It supports our active duty force and it retains its clinical skills through an active clinical practice in both peace and war. It offers a ready asset to respond to humanitarian assistance needs and disaster response. The full complement of preventive, public health, primary care, specialty and specialty care services that we offer are necessary components for meeting the national security obligations of the United States.

Our health benefit must continue to ensure a ready medical force of military providers and support staff able to deploy anywhere, anytime with skills that support combatant commander requirements; provide access, choice and value of the health care benefit; and be fiscally sustainable for the Department.

The Defense Health Agency serves as a strategic enabler to the Department in providing value to the Services and 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.

The FY 2017 budget provides the Department with the resources it needs to meet its mission and ensure we can meet the appropriately high expectations that beneficiaries have for us. Our proposal represents a balanced, comprehensive package of reforms that are directly aligned with and address each element of our Quadruple Aim. We have initiatives that will improve readiness, improve health, improve care, and lower cost. We look forward to working with you over the coming months to further refine and articulate our objectives in a manner that improves value for everyone – our warfighters, our combatant commanders, our patients, our medical force, and the American taxpayer.

Thank you for inviting the Surgeons General and me here today to speak with you about the essential linkage between our readiness mission and our health benefit and about our plans to further improve benefits and services for the long term.

**Vice Admiral Raquel C. Bono
Director, Defense Health Agency
Medical Corps, United States Navy**

Commissioned in June 1979, Vice Adm. Raquel Bono obtained her baccalaureate degree from the University of Texas at Austin and attended medical school at Texas Tech University. She completed a surgical internship and a General Surgery residency at Naval Medical Center Portsmouth, and a Trauma and Critical Care fellowship at the Eastern Virginia Graduate School of Medicine in Norfolk.



Shortly after training, Bono saw duty in Operations Desert Shield and Desert Storm as head, Casualty Receiving, Fleet Hospital 5 in Saudi Arabia from August 1990 to March 1991. Upon returning, she was stationed at Naval Medical Center Portsmouth as a surgeon in the General Surgery department; surgical intensivist in the Medical/Surgical Intensive Care Unit and attending surgeon at the Burn Trauma Unit at Sentara Norfolk General Hospital. Her various appointed duties included division head of Trauma; head of the Ambulatory Procedures Department (APD); chair of the Laboratory Animal Care and Use Committee; assistant head of the Clinical Investigations and Research department; chair of the Medical Records Committee and command intern coordinator. She has also served as the specialty leader for Intern Matters to the surgeon general of the Navy.

In September 1999, she was assigned as the director of Restorative Care at the National Naval Medical Center in Bethesda, Maryland, followed by assignment to the Bureau of Medicine and Surgery from September 2001 to December 2002 as the Medical Corps career planning officer for the chief of the Medical Corps. She returned to the National Naval Medical Center in January 2003 as director for Medical-Surgical Services.

From August 2004 through August 2005, she served as the executive assistant to the 35th Navy Surgeon General and chief, Bureau of Medicine and Surgery. Following that, she reported to Naval Hospital Jacksonville, Florida, as the commanding officer from August 2005 to August 2008. She then served as the chief of staff, deputy director Tricare Management Activity (TMA) of the Office of the Assistant Secretary of Defense, Health Affairs (OASD(HA)) from September 2008 to June 2010. She later served as deputy director, Medical Resources, Plans and Policy (N093), chief of Naval Operations. From November 2011 to June 2013, she served as the command surgeon, U.S. Pacific Command, Camp H.M. Smith, Hawaii. From July 2013 to September 2013, she served as acting commander Joint Task Force National Capital Region Medical. From September 2013 to October 2015, she served as director, National

Capital Region Medical Directorate of the Defense Health Agency, and as the 11th Chief, Navy Medical Corps. She currently serves as director, Defense Health Agency.

Bono is a diplomat of the American Board of Surgery and has an Executive MBA from the Carson College of Business at Washington State University. Her personal decorations include Defense Superior Service Medal (three), Legion of Merit Medal (four), Meritorious Service Medal (two) and the Navy and Marine Corps Commendation medal (two).

Mr. FRELINGHUYSEN. Thank you, Admiral Bono.

General West, Surgeon General of the United States Army, welcome.

SUMMARY STATEMENT OF GENERAL WEST

General WEST. Thank you. Good morning. Chairman Frelinghuysen, Ranking Member Visclosky, and distinguished members of the subcommittee, thank you very much for this opportunity to appear before you to discuss Army medicine, and to highlight the important work our soldiers and our DA civilians perform daily in support of our Army and our Nation.

First, on behalf of the dedicated professionals within our Army medicine, I would like to extend our appreciation to Congress and the subcommittee for your continued support for all we do. And we hope you are proud of our efforts.

I would like to also recognize the 186,000 of Americans' sons and daughters who are either deployed or forward stationed in over 140 countries around the world. They remain foremost in my mind, because our primary duty is to make sure that we support our warfighter.

Since 1775, we have remained one team with one purpose, and that is conserving the fighting force. To accomplish this, Army medicine as a total force consists of a committed team of over 150,000 professionals who provide a continuum of integrated health services. And that is in research, training, education, and all of those benefits and all of those capabilities that no other health care organization in the world can provide. Army medicine, combined with our Navy and our Air Force colleagues, comprise a joint medical force without peer.

As the Army is foundational to the joint force, Army medicine is foundational to the joint health services enterprise. And for the past 14 years, we have supported joint campaigns in Afghanistan and Iraq, and we have responded to natural disasters and have taken decisive actions during contingencies, such as the U.S. Government response to the West African Ebola crisis.

In this, Army medicine continues to prove that we are the Nation's premiere expeditionary medical force meeting the challenges of a complex world. And we remain globally engaged, regionally aligned, and surge-ready to face the ever-changing challenges of tomorrow.

So Army medicine's first priority, readiness in health, is a directory reflection of my chief, General Milley's number one priority, and that is readiness. As he always states, readiness is number one, and there is no other number one. We see readiness as, you know, in health, closely coupled as our Army derives its power from the collective strength of our soldiers. So our soldiers are our most prized and effective weapon system. And a soldier's health is an essential component of his or her readiness.

So, while we focus on our readiness mission, we must also ensure that we provide all those entrusted to our care with access to high quality and safe health care. And while we have improved access by 21 percent since 2014, we still are not fully meeting the expectations of our beneficiaries. So, accordingly, we continue to diligently work to improve our access.

Army medicine also continues to lead trauma research, which is driving changes in civilian medical practice as well. We recently obtained FDA clearance of the first-of-a-kind endovascular device for hemorrhage control called the ER REBOA, which we are very proud of. And that is literally intravascular mechanisms to tamponade bleeding from the aorta. So very, very—you know, very good advanced in that hemorrhage control arena.

We are also conducting groundbreaking infectious disease research to combat Ebola, malaria, HIV, and Zika virus, and other infectious disease throughout that have global significance.

My next priority force development is designed to prepare our Army medicine better for the challenges of tomorrow. The price for the so-called arrogance of the present, meaning that we don't recognize the need to be prepared at all times, is very high indeed. I only need reference, as my chief does a lot, Task Force Smith, to evoke the images of soldiers paying the price in blood for lack of readiness for an unknown future. My commitment to our Nation, our Army, and to Congress today is that Army medicine will never be caught unready, unprepared for tomorrow's challenges.

Taking care of our soldiers and their families and our DA civilians, and our retired soldiers for life, is integral to all that we do. And we continue to take care of them. So Army medicine will continue to stand as a unique organization that has the versatility, the agility, and the scale and the ability to adapt to the challenges that arise at home and abroad. And as you know, the events of the world today, that is an extremely important capability and attribute for us to have. Our fiscal year 2017 budget request provides adequate funding to support the essential elements of my four priorities, and we stand ready, so our Nation's mothers and daughters must know that when their sons and daughters are ill or injured, that we are here and that we are ready, and that we are here to support them.

So our, you know, our willingness and our ability to support that is a sacred trust. And I take it very seriously. We can never, and we will never be in doubt that we will be ready to take care of our servicemembers in harm's way.

So I thank Congress for your continued support and—of our Army and our soldiers, and I look forward to your questions.

[The written statement of General West follows:]

RECORD VERSION

STATEMENT BY
LIEUTENANT GENERAL NADJA Y. WEST
THE SURGEON GENERAL AND
COMMANDING GENERAL,
UNITED STATES ARMY MEDICAL COMMAND

BEFORE THE

HOUSE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON DEFENSE
SECOND SESSION, 114TH CONGRESS

ON DEFENSE HEALTH PROGRAM

MARCH 22, 2016

NOT FOR PUBLICATION UNTIL RELEASED BY THE
HOUSE APPROPRIATIONS COMMITTEE

Chairman Frelinghuysen, Ranking Member Visclosky, and distinguished members of the subcommittee, thank you for the opportunity to appear before you to discuss the future of Army Medicine and highlight the important work the Soldiers and DoD civilians of this world-class organization perform daily. On behalf of these dedicated professionals, I extend our appreciation to Congress for your faithful support to military medicine.

Let me open by recognizing America's sons and daughters currently in harm's way – 9,800 U.S. troops are committed to operations in Afghanistan, approximately 3,500 in Iraq, and over 176,000 forward-stationed or deployed around the world.

Army Medicine is comprised of a committed team of over 150,000 Active Duty, Reserve Component, Civilian and Contract professionals who serve on five continents and across 18 time zones, providing cutting edge medical readiness and healthcare throughout the world.

I am honored to have the privilege of serving as The Army Surgeon General and Commanding General of US Army Medical Command. Since 1775, Army Medicine has supported our Nation and our Nation's Army whenever and wherever needed. For the past 14 years we supported Joint campaigns in Iraq and Afghanistan, responded to natural disasters, and took decisive action during other contingencies such as the US Government response to the Ebola outbreak in West Africa. Because demands on the Army will remain constant, Readiness is my #1 priority.

As always, we fully intend to maintain our long-standing commitment not only to treating the wounds of war, but also the non-combat injuries and illnesses of our Soldiers, their families, and our retirees. My four priorities are: (1) Readiness and Health; (2) Healthcare Delivery; (3) Force Development; and (4) Taking care of Soldiers, their families, DA civilians, and retirees. These four priorities are strategically nested with those of the US Army and the Joint Health Services enterprise (JHSent). No matter the challenge, these priorities will allow Army medicine to provide the support necessary for our Soldiers to fight and win in a complex world.

BUDGET OVERVIEW

Our FY 2017 budget request provides adequate funding to support the essential elements of our four priorities. Military medicine and the Army have seen almost no budget increases in the past 4 years. To control expenditures we have achieved efficiency and productivity gains to control our costs. We have done that while improving access and ensuring quality. Our FY17 request is lean but adequate.

I would like to highlight the people aspects of our budget which supports a military, civilian and contracted workforce that is essential to our ability to deliver healthcare. Healthcare is still a touch business and requires skilled professionals to deliver services. In recent years Army Medicine has struggled to attract and retain the civilian workforce necessary to ensure mission success and achieve improvements in healthcare access and quality among other programs; having lost nearly 5,000 civilian employees as a result of sequestration. Because our workforce has been smaller than needed, for the last two years Congress reduced our labor budget below requested levels. However, our civilian workforce has finally stabilized at budgeted levels. Our FY17 request reflects the amounts necessary to sustain our current workforce. Additional reductions by Congress will require us to reduce services and curtail programs that we rely on to maintain our readiness.

While the Bipartisan Budget Agreement Act of 2015 provides short-term predictability for FY16 and FY17, the fiscal uncertainty beyond FY17 presents a significant challenge. If sequestration returns, Army Medicine will face further reductions to military and civilian personnel which will likely force us to reduce services and cause us to convert more hospitals to clinics. Operating under these conditions would exacerbate our challenges with access and not allow sufficient mitigation strategies to address potential safety concerns that may be provoked by low patient volume. In addition, this would negatively 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.

READINESS AND HEALTH: OUR TOP PRIORITY

The global security environment continues to degrade and place high demands on the United States Army. The Army's number one priority is Readiness.

Army Medicine's primary mission is supporting the Warfighter. In supporting the Warfighter, we uphold the solemn commitment our Nation's Army has made to our Soldiers when sending them in harm's way. Army Medicine has a two-fold readiness mission. We must ensure Soldiers are medically ready to deploy, and we must generate and maintain a rapidly responsive and broad spectrum of medical capabilities—properly trained and equipped individuals and units—while supporting our Soldiers, Families, and Retirees at home.

Soldier Health Readiness

The Army derives its power from the collective strength of its Soldiers rather than advanced platforms. Our Soldiers are our most prized and effective weapons system. A Soldier's health is an essential component of his or her readiness. Although, medical readiness of the force has increased from 73% to 83% since 2012, more than 57,000 Soldiers across all Components were medically non-deployable as of January 31, 2016. In the Active Component alone, 29,800 were medically non-deployable, equivalent to approximately 6.5 Brigade Combat Teams worth of Soldiers. In 2015, Army Medicine published the inaugural 'Health of the Force' report to provide leaders with a more holistic understanding of the health readiness of the force.

Seventy-six percent of the non-deployable Soldiers have a related musculoskeletal injury (MSKI). Many MSKI are preventable; 80% are the result of physical training overuse and sports related injuries. Obesity and low levels of fitness also degrade medical readiness. Despite current body composition standards, 13% of Soldiers have body mass index (BMI) ≥ 30 , which is considered clinically obese. These Soldiers are 86% less likely to be medically deployable. Obese service members in a brigade in Afghanistan were 40% more likely to experience an injury than those with a healthy weight. Sleep deprivation, fatigue and insomnia are comorbid with mental

illnesses and injuries, reduce mission readiness and contribute to Service Member medically non-deployable profiles.

In 2012, Army Medicine continued our evolution to aggressively transition from a healthcare system—a system that primarily focused on treating injuries and illness—to a System for Health to proactively focuses on improving health and wellness of all Service Members, Families, and Retirees. Health readiness and fitness are fundamental to Soldier performance and comprise the foundation of the Army's combat power and land dominance. Army Medicine has partnered with key stakeholders across the Army to develop the Performance Triad Strategy. This is a comprehensive strategy to invest in our Soldiers, DA-Civilians, Retirees, and their Families with the goal to enhance personal health readiness, sustain resilience, and optimize performance. As part of our comprehensive strategy, programs like the Performance Triad (P3) augment other initiatives such as Army Wellness Centers, Move to Health, and Go Dental First Class. Our medical readiness transformation is aimed to improve health readiness while providing better tools and resources for Command Teams.

Performance Triad Training Programs & Products

The Performance Triad (P3) training programs and products are the cornerstone of the System for Health and link directly to the Army's Ready and Resilient Campaign and the Army Human Dimension Strategy. The P3 strategy provides tools for unit and installation leaders to improve the physical, cognitive, and emotional fitness and health of their Soldiers through techniques that optimize restful sleep, regular physical activity, and good nutrition. Based on pilot study results beginning in FY14, the Performance Triad is a solution and key enabler to improve individual and unit readiness. It synchronizes the best advances in sports science and technology to improve knowledge, attitudes and behaviors in relation to sleep, activity, and nutrition.

The FY14 pilot was conducted in three active duty battalions from August 2013 to May 2014. It confirmed Soldiers are not meeting the basic Performance Triad targets essential for health, performance, and readiness. Only 4-5% of Soldiers met all sleep targets, 29-42% met all activity targets, and only 2.4-3.6% met all of the nutrition targets across the three units.

The FY14 pilot yielded valuable insights which shaped the FY15-16 pilot to improve the reach, adoption, implementation, and maintenance of the program Army wide. The FY15-16 pilot expanded the program to approximately 11,000 active duty Soldiers across five FORSCOM brigades, the Army Medical Department Center and School (AMEDDC&S), one Army Reserve brigade, and one Army National Guard brigade. The cost of the current study is \$6.7M which we believe is an investment in Total Army Family and health readiness. The FY15-16 pilot will conclude Summer of 2016 and the formal analysis will be completed Fall of 2016, and will inform Army wide implementation.

Preliminary FY15-16 pilot results indicate that Soldiers expect the Army to treat them as tactical athletes. Army-wide implementation can impact at a minimum, preventable disease, illness, and injury. Also, we anticipate a rising trend in self-monitoring of personal health readiness and an increase in peer support. While these are promising mid-point findings, the formal analyses this fall will garner more accurate results. Successful implementation of Performance Triad across the Total Army will improve the health readiness of the force. Optimization of each individual's performance becomes more critical as the Army end strength decreases and budgets decline. By applying the lessons learned from the FY14 pilot and through the ongoing FY15-16 pilot, we are changing the culture of the Army by embedding the Performance Triad into the Army's DNA.

Move-to-Health Program

The "Move to Health" Program educates health care teams to focus on improving health outcomes, by integrating the Performance Triad, mindfulness, and other health and wellness initiatives for our beneficiaries. It provides clinic personnel with additional tools to engage Soldiers and their Families to empower them to be active partners in their health and healthcare outside of clinic or hospital settings. The curriculum is adapted from the Veteran's Health Administration (VHA) "Whole Health" program.

The "Move to Health" pilot was launched at eight of our facilities and trained 376 physicians, nurses, and other health professionals. The Army Public Health Center (Provisional) provided oversight. Although the final evaluation results are pending, the

initial results are promising. Based on improved team performance noted locally, Madigan Army Medical Center has already decided to train 100% of its teams on "Move to Health". The initial results demonstrated significant improvements in self-efficacy, attitudes towards patient-centered care, and an increased willingness to engage in holistic health and behavior approaches to address pain management, cardiovascular disease, and gastrointestinal disease.

Army Wellness Centers

Army Wellness Centers (AWC) provide community based health promotion services to promote and sustain healthy lifestyles and to enhance the readiness of the force. AWCs represent an actionable platform to deliver evidence based practices designed to promote positive lifestyle change. All staff members of our Army Wellness Centers are trained in wellness coaching. Equipment utilized in an AWC is composed of advanced technology to measure the four components of physical fitness-- cardiorespiratory, body composition, muscular fitness, and flexibility. Stress, nutritional habits, and other health behaviors are also assessed. These services are supported by a budget of nearly \$70M.

In 2015, 27 locations met the standards and were classified as AWCs. In FY16, we will add four new sites with full implementation of 37 AWCs occurring by the end of 2018. Active Duty Soldiers made up the majority of AWC participants served (63%), followed by Family members (20%), Department of the Army civilians (9%), Retirees (3%), Unreported (3%), and Reservists (2%). The overall consumer satisfaction rating was 97%, and each individual Army Wellness Center either met or exceeded the goal of 95% satisfaction.

Forty-eight to 58% of participants who set a goal with the Army Wellness Center health educator to lose weight saw a significant decrease in BMI. Clients who returned for follow-up within one year generally improved their risk factors for disease. Improvements were observed in body fat, body mass index (BMI), diet and nutritional habits, perceived stress, cardiorespiratory fitness, and blood pressure.

Dental Readiness

Go First Class (GFC) is a comprehensive Army-wide initiative that simultaneously addresses dental readiness, wellness, and prevention while returning valuable training time to Soldiers and their units. During their annual dental exam, Soldiers now routinely receive a dental cleaning, and if needed dental fillings. Soldier benefits include spending less time traveling to and from dental appointments, reducing the number of hours spent in the clinic, and eliminating the requirement for follow-on appointments.

Since January 2011, Go First Class and other initiatives have contributed to a 25% decrease in acute care appointments, a 50% reduction in Dental Readiness Classification 3 (non-deployable), and a 60% reduction in all treatment needs. GFC has directly improved Soldiers' Dental Readiness (deployable) and Dental Wellness (no dental needs), reaching all-time historic highs of 96% and 60%, respectively.

Medical Readiness Transformation

As the Army downsizes from its peak of 566,000 Active Duty personnel to 450,000 by the end of FY17, the Army must reduce the number of medically non-deployable Soldiers to retain combat power. Therefore, Army Medicine is leading a medical readiness transformation to improve Command Teams' visibility of medical readiness information at all levels. This will simplify the process by which they make deployability determinations and lead to timely identification, corrective action, and accountable oversight of unit and individual medical readiness.

We are redesigning the process of profiling, which documents Soldier's temporary and permanent medical and behavioral health conditions as well as any functional limitations, in order to improve transparency and consistency in communicating medical readiness information to Commanders. Soldiers will no longer have overlapping temporary profiles, and will instead have a single active profile for all conditions. The Army is simplifying the Medical Readiness Classification (MRC) codes used to identify Soldiers as being "deployable" or "non-deployable." We have developed a new "Commander's Portal" to allow Command teams to more easily view Medical Readiness data and make deployability determinations without requiring log on to multiple systems.

The newly developed Medical Readiness Assessment Tool (MRAT) allows commanders and clinicians to proactively address medical readiness by identifying Soldiers with recurring medical profiles that are headed down a trajectory that could result in a permanent deployment limiting profile. It does this through a predictive model that identifies a Soldier's risk for becoming medically non-deployable during the next 12 months. Awareness of these high risk Soldiers enables clinicians to intervene to determine root causes for medical issues and develop courses of action to maximize readiness of the Soldier and ensure he or she receives the care needed.

We are aggressively training the force to fully implement the Medical Readiness Transformation by June 1, 2016.

Responsive Medical Capabilities

The Army must maintain a rapidly responsive and broad spectrum of medical capabilities that can conduct rapid deployment in support of Combatant Commanders' requirements. Our medical capabilities must be prepared to support the full range of military operations with mission ready personnel able to rapidly transition from garrison to delivering the appropriate health service support in an area of operation.

During the past 14 years of combat operations, our trained and ready medical providers contributed to a survivability rate of 92%, the highest in the history of warfare, despite the increasing severity of battle injuries. These advances in combat casualty care resulted from our integrated healthcare system that spans the continuum of care from prevention, to treatment of illness or injury, to recovery and rehabilitation in garrison.

However, focusing exclusively on sustainment of combat trauma, surgery and burn capabilities would be a failure born of shortsightedness and could potentially lead to catastrophic consequences for the future. Our experience shows that the Army must maintain a broad range of medical capabilities to support the full range of military requirements. From 2001 to 2015, only 16% of those evacuated from Iraq and 21% of those evacuated from Afghanistan were injured in battle. The remaining Service members, 84% in Iraq and 79% in Afghanistan, were evacuated for disease or non-

battle injuries. Similarly, greater than 95% of those that received care and remained in theater were treated for disease and non-battle injuries rather than combat injuries.

The 2014 deployment of over 2,500 personnel to support Operation United Assistance in Liberia demonstrated the value of non-trauma related medical specialties. Infectious disease is often a major threat to our Soldiers rather than armed combatants. The geographically endemic medical risks to our forces in support of the rebalance to Asia and operations in Africa point to the continued need to remain ready to utilize the entire spectrum of Army medicine in the execution of all manner of military contingency operations.

In FY15, the MEDCOM deployed 1,998 Soldiers to support a variety of missions supporting Combatant Command requirements. Of these, 238 personnel deployed to support 38 theater security cooperation missions; 129 Soldiers and civilians conducted 55 subject matter expert exchanges; and 139 employees were integral team members on 59 Defense Threat Reduction Agency (DTRA) missions. As of January 6, 2016, 354 MEDCOM Soldiers were deployed and another 159 were in a prepared to deploy status in support of globally integrated operations.

Army Medicine capabilities employed in Global Health-related engagements contributed in numerous areas in support of Combatant Commands to include battling Ebola (Africa), rabies wildlife prevention program (Kosovo), regional tropical disease research, bio surveillance and threat reduction (Thailand, Republic of Georgia and Kenya), proliferation of best practices in prosthetics and rehabilitation (UK, Pakistan, Republic of Georgia), advancement of professional military nursing (France, Vietnam, and Japan) and support to exceptional medical care cases through the DOD Secretarial Designee Program (Norway, Afghanistan, Australia, Ecuador, Italy, Romania, and the Republic of Georgia).

We see our medical centers, hospitals and clinics as our health readiness platforms. They ensure we maintain trained and ready medical personnel. Our large medical centers serve as specialized training centers for our medical teams to provide care and clinical research for complex battle injury and illness. Our medical centers are complemented by a variety of military treatment facility types, from ambulatory clinics to community hospitals that prepare our medical force to provide primary and routine

specialty care in a myriad of settings and conditions around the world. These facilities must be capable of enrolling a broad range of patients with a wide variety of illnesses and injuries.

Army Graduate Medical Education (GME) programs are critical to develop trained and ready medical personnel. Army GME is the largest GME platform in the DoD and supplies more than 90% of all Medical Corps (MC) physicians for the Army. Our GME programs have nearly 1,500 trainees in 149 programs. The vast majority (93%) of Army GME training is conducted at 10 military treatment facilities. The remaining 7% is conducted in approximately 64 civilian academic institutions, primarily for fellowships. Civilian GME programs do not have the capacity to absorb our interns, residents, and fellows. Our GME programs continue to lead the nation in training. The first time board certification pass rate of 95% across Army GME exceeds the 87% national rate. Agile GME program management assures ongoing alignment of training slots with deployment and readiness requirements.

The Army continues to increase its partnerships with the VA through sharing agreements that provide care to VA beneficiaries in various healthcare facilities that have excess capacity. Treating VA beneficiaries supports Army GME programs and provider readiness. This is due to the fact that VA patients typically have needs that are much more complex and extensive than normally seen in Soldiers and family members. Further, 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 \$50.3 million in healthcare services to VA beneficiaries at 19 locations across the country.

I would also like to highlight our partnership with the US Army Special Operations Command, Joint Special Operations Medical Training Center (JSOMTC), to identify where we can collaborate to identify best practices and disseminate those to the entirety of the Total Force. JSOMTC provides a unique opportunity to capture lessons learned from the battlefield as special operations medical personnel provide support. The best practices they identify are instrumental in educating our medical personnel in the conventional force. To that end, we will continue efforts to bring the conventional and unconventional forces closer together and learn from each other. We anticipate this will

motivate leaders at all levels to take a more active role in medical training and incorporate casualty-play into all other training.

Education and Training

Army Medicine continues to enjoy tremendous success in attracting and educating the best medical minds. The multi-discipline Health Professions Scholarship Program (HPSP) produces over 450 graduates annually - 80% of active duty physicians, dentists, optometrists, veterinarians, and clinical psychologists. Currently, we have 1596 HPSP students in medical, dental, veterinary, optometry, nurse anesthetist, clinical psychology and psychiatric nurse schools. Additionally, the Uniformed Services University of the Health Sciences (USUHS) is a critical institution dedicated to developing and training clinicians in leadership, clinical, and combat casualty care as well as operational medicine. USUHS is a critical source of accessions for the Medical Corps and provides valuable post-graduate education for nurses, dentists, administrators and other public health professionals.

Our education programs are consistently recognized nationally. US News and World Report's most recent survey of graduate schools ranked the US Army Baylor Doctoral Program in Physical Therapy 5th in the country; the Inter-service Physician Assistant Program 11th; and the Army-Baylor University Graduate Program in Health Administration program 7th nationally. Furthermore, the US Army Graduate Program in Anesthesia Nursing (USAGPAN) and the USUHS Daniel K. Inouye Graduate School of Nursing Doctor of Nursing Practice (DNP) Nurse Anesthesia program are regarded among the best in the Nation with graduates surpassing national averages on National Certification Exam first-time pass rates and overall scores.

The Army has partnered with the Uniformed Service University of the Health Sciences to develop and implement the Enlisted to Medical Degree Preparatory Program (EMDP2). This 24-month program enables enlisted Service members to complete the preparatory course work for entry into medical school while maintaining active duty status. Four of the five Soldiers in the 2014 cohort have already been offered positions in the military medical school. This program will recruit and grow talent from within the ranks, optimize force development and enhance medic retention.

HEALTHCARE DELIVERY

Army Medicine's fundamental tasks are promoting, improving, conserving, and restoring the behavioral and physical well-being of those entrusted to our care. From the battlefield to the garrison environment, we will support the Operational requirements of Combatant Commanders while also ensuring the delivery of the healthcare benefit to our beneficiaries. We must provide our beneficiaries with access to high quality care. We will continue to focus on expanding Telehealth, sustaining Warrior Care and Behavioral Health, and supporting women in the Army.

Access to Care Initiatives

Improving access to care remains a priority for Army Medicine. Specifically, our beneficiaries expect better primary care access. While we have improved access by 21% since 2014, we are still not fully meeting our beneficiaries' expectations. Therefore, I have directed actions to radically improve access to primary care in our MTFs. I have established a goal of creating 260,000 (4%) more primary care visits above the 6.1 million visits we provided in FY15 and 119,000 (1.5%) more specialty care visits above the 7.9 million we visits provided in FY15.

We are standardizing processes across the Services to drive improvement with access. Last year, Army Medicine instituted a "First Call Resolution" policy to ensure all enrolled beneficiaries receive a direct care system appointment or network authorization on their first call. In addition, Army Medicine implemented a simplified appointing policy to reduce the types of primary care appointments from 12 to 5 with a focus on 24-hour acute appointments and future/follow-up appointments.

Army Medicine continues to expand our off-installation healthcare program by placing Community Based Medical Homes (CBMH) in communities surrounding our military installations closer to where our beneficiaries live and work. Today over 10% of our enrolled beneficiaries receive their primary care in a CBMH, many of which have extended hours and offer behavioral health and prescription refill services. We currently have 20 CBMHs supporting 13 installations. In FY16, we will open three more CBMHs at three installations and in FY17, we will open two more CBMHs and our first open access acute care clinic in San Antonio.

To further improve access to routine and specialty care, I am directing our MTFs to allow beneficiaries to book an appointment up to six months in advance. This will allow beneficiaries to book follow-up appointments before departing at the conclusion of their MTF visit, eliminating the need for them to call back to make an appointment after they have left our facilities. We will increase the number of available appointments by increasing the time our physicians are available to see patients and reducing the number of unfilled appointments. Additionally, we are also conducting a comprehensive assessment across our installations to determine where we must expand clinic hours or establish Urgent Care Clinics to take care of our people.

Army Medicine is also aggressively expanding the use of virtual tools, such as the Nurse Advice Line (NAL), TRICARE online, and Secure Messaging. In 2015, 55,000 beneficiaries were given self-care instructions through the NAL avoiding an unnecessary trip to the Emergency Department or Urgent Care Center. On January 15, 2016, Tricare Online (TOL) Pharmacy Refill went live. During the first week in February alone, 5,400 prescriptions were refilled via TOL allowing providers to focus more time on clinical care.

Army Medical Homes

The Army Medical Home (AMH) is a multidisciplinary approach to deliver comprehensive primary care. Care is delivered through an integrated healthcare team who proactively engages patients as partners in health. The Army Medical Home model encompasses all primary care delivery sites in the direct care system, including our MTF-based Medical Homes, Community Based Medical Homes (CBMH) and the Soldier Centered Medical Homes (SCMHs).

Primary Care is delivered through an integrated team of healthcare professionals that proactively engages patients as partners in health, with a stronger focus on prevention. Each patient will partner with a team of healthcare providers – physicians, nurses, behavioral health professionals, pharmacists, and others – to develop a comprehensive, personal healthcare plan. Currently, 134 AMHs across the United States, Europe, and the Pacific are caring for 1.3 million beneficiaries supported by a budget of \$74.5M. All of the AMHs have been recognized by the National Committee for

Quality Assurance (NCQA) representing the gold standard of patient-centered medical care.

The integration of Internal Behavioral Health Consultants (IBHC) and Behavioral Health Care Facilitators (BHCF) into Army Medical Homes has increased the availability of behavioral health services to all beneficiaries and reduced the stigma of behavioral health treatment. In addition, these Behavioral Health providers are an integral component of the treatment and prevention of behavioral health and behavioral medicine disorders in the beneficiary population. IBHCs address common behavioral health issues including depression and anxiety as well as assist with the treatment and prevention of many chronic medical conditions that can improve with lifestyle changes (diabetes, chronic pain, insomnia, obesity, nicotine use, etc.). Currently, 99 IBHCs and 58 BHCFs are integrated within the Army Medical Homes.

Telehealth (TH)

Army Medicine will continue to leverage technology to enhance access, readiness, quality, and safety for our beneficiaries. Army Telehealth (TH) currently provides clinical services across 18 time zones in over 30 countries and territories. Army Medicine executes approximately \$14 million per year on clinical uses of TH such as Tele-Behavioral Health (TBH). In FY15, Army clinicians provided over 40K provider-patient encounters and provider-provider consultations in garrison and operational environments in over 30 specialties via TH. Army TH accounts for over 90% of all clinical TH encounters in the DoD.

Army Medicine invests in three TBH provider hubs with the majority of current spending for provider and staff salaries. These hubs are strategically located across the world to ensure 24/7 routine and emergency coverage. The April 2014 Fort Hood shooting is an example of emergency surge support. After the shooting, clinical support from Washington D.C., Honolulu, HI, and San Antonio, TX, was surged quickly to offer services to our Soldiers at Ft. Hood, TX. Other key programs include teleconsultations systems connecting deployed providers with specialty expertise in garrison; a mobile application system supporting warriors in transition; tele-mentoring programs in Pain Management; and a world class research portfolio innovating deployed TH systems.

Because of its tremendous benefits, Army Medicine is expanding TH to create Connected, Consistent Patient Experience (CCPE) -- a 360° care continuum around patients using advanced TH modalities. The core elements of the CCPE include: (1) implement TH visits to patients' locations (such as their homes); (2) optimize provider-provider teleconsultations systems; (3) pilot remote health monitoring; (4) enhance the current TH Operating Company Model for standardized global operations; and (5) mature Army TH in operational environments.

As a glimpse of the future, Army Medicine is building a seamless, global teleconsultations platform. From battlefield to bedside, providers will be able to access specialty expertise from their colleagues – wherever in the world they are working. This enables patients to receive the best specialty expertise Army Medicine has to offer no matter where they are stationed.

Behavioral Health (BH)

Behavioral healthcare is one of the most important factors in the readiness of the Force. I anticipate continued growth in the demand for behavioral health care, including TBH, even as overseas contingency operations decrease. This is mainly due to the cumulative strain of over 14 years of war on Soldiers and families, the unique stressors of military service, and the Army's continued emphasis on Soldiers seeking help. In FY16, the Army will resource an estimated \$300M to support BH programs.

The Army is helping to decrease the stigma that others may feel in seeking behavioral health care. Programs such as Embedded Behavioral Health (EBH), Primary Care Behavioral Health and School Behavioral Health focus on reaching Soldiers and their families outside the MTF to improve access and reduce stigma.

Embedded Behavioral Health teams now support 141 operational units, including all Brigade Combat Teams. EBH provides multidisciplinary behavioral healthcare to Soldiers in close proximity to their units. EBH has correlated with an increase in Soldiers' use of outpatient behavioral healthcare and a reduction in the need for acute inpatient psychiatric care. This indicates that Soldiers are receiving care earlier in the course of their BH condition, before crises occur. We will extend the EBH model of care

to support all operational units across the Force no later than October 2016. Special Forces units on Army installations have the priority of support.

The Army regularly screens Soldiers for BH conditions, including PTSD, at several points in the Force Generation cycle. The Army's screening program exceeds Department of Defense requirements and includes assessments annually and before and after every deployment. Also, screenings for BH conditions are performed at every primary care visit and BH professional have been placed in medical homes to expedite consultation and treatment. To expand behavioral healthcare to Children and other Family Members, MEDCOM has established clinics within 51 schools and will expand to approximately 50 more to enhance access to and continuity of care.

We are proud of the implementation of the Behavioral Health Data Portal (BHDP) at every MTF. BHDP is a web-application that gathers standardized, automated clinical data from Soldiers receiving care in BH clinics. The program analyzes and presents data to BH providers to support their clinical decisions and treatment planning. It tracks patient outcomes, satisfaction, and risk factors via web application to improve program assessment and treatment efficacy. This innovative program has been identified by the Department of Defense as a best practice and is being implemented by the Navy and Air Force.

In March 2015, the Secretary of the Army (SA) directed the Assistant Secretary of the Army for Manpower and Reserve Affairs to conduct a comprehensive review of the Army Substance Abuse Program (ASAP). In October 2015, the Secretary approved ASA(M&RA)'s recommendation to realign clinical care under MEDCOM and integrate it with the Behavioral Health System of Care. The MEDCOM is developing a Substance Use Disorder Clinical Care capability that ensures holistic and integrated medical care for our Soldiers in accordance with published DoD policy, national standards, and best practices. The new \$40M program will provide additional opportunities for Soldiers to receive care for substance use disorders from over 300 specially trained counselors.

Improving Quality and Safety

Since 1775, Army Medicine has reliably served our Nation, our Army and all those entrusted to our care. Army Medicine's commitment to patient safety has been,

and remains, unwavering. In 2012, we began to incorporate elements of the “High Reliability Organization” (HRO) concept to continue to improve our practices in achieving the highest levels of patient safety. In 2015, we established the Deputy Chief of Staff for Quality and Safety to align all quality, patient safety, and organizational environmental and equipment safety elements within the same directorate. This alignment provides a synergistic environment to take advantage of analysis of problem areas and best practices across the full spectrum of quality and safety from within the command and in consultation with external experts and leaders.

Army Medicine is collaborating with The Joint Commission Center for Healthcare Transformation to pilot an assessment program that gauges the HRO maturity of Army MTFs. The Joint Commission team completed three assessments in 2015 and one in January 2016. The evaluations revealed several leading practices that include the routine conduct of Command team safety walk-rounds and the incorporation of HRO concepts into staff orientation. Opportunities for improvement identified were clearly linking Commander's priorities to quality and safety and advancing training in the use of Lean and Six Sigma for process improvement and reduction of variance across the facility. These assessments are valuable to our facilities. Therefore we plan on conducting four more MTF assessments per year over the next five years. As the assessments are completed and analyzed, the lessons learned will be shared across the entire MEDCOM and with our Sister Services.

Army Medicine is increasing its participation in the American College of Surgeons' National Surgical Quality Improvement Program (NSQIP) to reduce surgical complications, improve outcomes, and improve patient satisfaction. Currently, nine Army MTFs participate in NSQIP. By the end of 2016, all 22 Army MTFs with surgical services will participate in NSQIP. In 2015, Dwight D. Eisenhower Army Medical Center at Fort Gordon, GA was recognized by the American College of Surgeons as one of the nation's Top 50 Hospitals for Surgical Quality out of the 528 hospitals in the US that participate in NSQIP.

To drive further improvement, MEDCOM will design, develop and implement a Quality and Safety Center to more effectively use patient safety data, improve sharing of lessons learned across the MEDCOM, and increase transparency and availability of

quality and safety information available to our leaders, staff, and beneficiaries. This center will be established in coordination with the Army Combat Readiness Center (CRC) and will leverage many of the successful practices incorporated by the CRC.

Wounded Warrior Care

Caring for wounded, ill, and injured Soldiers is a sacred obligation and will remain an enduring mission. Since 2007, nearly 70,000 wounded, ill, or injured Soldiers and their families received care from dedicated Warrior Care and Transition Program (WCTP) health care professionals with more than 30,000 (~44%) returned to the force. This is a fully-funded program and the budget for FY16 is approximately \$810M.

The Warrior Transition Units (WTUs) provide mission command, medical management assistance, and transition assistance to Soldiers as they navigate the Army's medical treatment system. Within the WTUs, Soldiers receive personalized support from a Triad of Care that includes a nurse case manager, a squad leader, and the primary care manager. The Triad of Care is augmented by an interdisciplinary team of health care and transition specialists, to include social workers, physical therapists, occupational therapists, Army Wounded Warrior (AW2) Advocates, and many other professionals.

Community Care Units (CCUs) are within most WTUs and extend WTU capabilities into the community. Soldiers assigned to a CCU heal at their home with the support of their families and communities, with the support of the Triad of Care.

Since February 2014, Soldiers receiving care and oversight through the WCTP has decreased from approximately 7,000 to 2,659. Based on the declining population in WTUs, on August 27, 2015 the Army announced its plan to reduce the number of WTUs from 25 to 14 by August 2016.

The WTU locations scheduled for inactivation are Fort Gordon, GA; Fort Knox, KY; JB Langley-Eustis, VA; Fort Leonard Wood, MO; Fort Sill, OK; Fort Polk, LA; Fort Wainwright, AK; JB Elmendorf-Richardson, AK; Fort Meade, MD; and Naval Medical Center, San Diego, CA. As of 8 February 2016, there were a total of 171 Soldiers assigned to these WTUs.

The remaining 14 WTUs are aligned to major power projection platforms or those co-located with major Army medical activities and centers providing support to wounded, ill and injured Soldiers who require at least six months of rehabilitative care and complex medical management.

Throughout the consolidation effort, the WCTP will maintain a scalable and reversible posture to ensure uninterrupted care to our wounded, ill and injured population. The CCU mission of allowing Soldiers who do not require day-to-day care to recover closer to home and receive their care from the TRICARE network will not be affected by these consolidation efforts. The opportunity to recover closer to home will continue to be an option our Soldiers can exercise.

Civilian employees impacted by the consolidation will be reassigned based on skill match, the needs of the Army, and available employment opportunities. Every attempt will be made to allow Reserve Component cadre to serve out their tours. Transferring Soldiers and their families will be managed closely during this operation.

The Army will host the 2016 DoD Warrior Games in June 2016 at the U.S. Military Academy at West Point. The Warrior Games is the pinnacle event in the Army's adaptive reconditioning program for Soldiers recovering at the Army's Warrior Transition Units (WTUs). The Warrior Games feature 8 sporting events with approximately 200 athletes representing teams from each Service, SOCOM, and the British Armed Forces. As part of the Warrior Games, Soldiers can participate in a wide range of physical activities that support their physical and emotional well-being and contribute to a successful recovery, whether they are transitioning back to active duty or to civilian life.

Supporting Women in the Army

In January 2013, then Secretary of the Defense (SECDEF) Leon Panetta rescinded the 1994 Direct Ground Combat Definition and Assignment Rule. Following three years of careful and comprehensive study, the Army recommended all military occupational specialties (MOS) be open to women. The Army believes the best-qualified Soldier, regardless of gender, should be allowed to serve in any position. In December 2015, SECDEF Ashton Carter directed the full integration of women in the Armed Forces.

Since 2011, the Army has opened 9 military occupational specialties and approximately 95,000 positions in Combat Arms units down to company and platoon level. To achieve full gender integration, the Army will implement published, measurable, gender-neutral standards, then initiate gender-neutral training, followed by deliberate and methodical assignment of female leaders (officers, then enlisted) to Infantry and Armor units.

Army Medicine is supporting several tasks required for full gender integration. From October 2013 to June 2015, MEDCOM led the Soldier 2020 Injury Rates/Attrition Rates Working Group that conducted a thorough review of current literature, identified gaps in research and surveillance requirements to provide strategic-level recommendations to for policies and injury surveillance concerning mitigation of musculoskeletal injuries, gender-specific attrition, performance, behavioral health disorders and women's health issues

Soldiers' injury rates have been consistently higher in female than male Soldiers in the basic training setting (2:1) for 30 years. The injury rates become closer in the Operational and Deployed Army (1.2-1.4:1). This is likely due to improved levels of physical fitness and regular physical training sessions once Soldiers are assigned to units. Some studies compared male and female trainees of similar fitness levels and showed injury rates were nearly the same in a Basic Combat Training (BCT) environment. This suggests there is a subset of females that can perform at high fitness levels and who are less likely to be injured. Currently there is no medical data or research on long-term injury and disability rates for combat arms MOSs/AOCs for men or women. Consequently there is no foundation for predicting long-term injury rates and disability in Soldiers.

Nutrition is key factor in performance. Blood iron levels declines in female service members during rigorous training, particularly in BCT and Advanced Individual Training (AIT). MEDCOM and TRADOC implemented a multivitamin with iron program for female Army trainees in January of FY16 aimed at increasing performance and decreasing attrition rates. Other nutritional supplementation (primarily Calcium and Vitamin D) is being considered to address the incidence of stress fractures in Individual Entry Training (IET) Soldiers.

The US Army Research Institute of Environmental Medicine (USARIEM) worked closely with the Training and Doctrine Command (TRADOC) to develop the Occupational Physical Assessment Test (OPAT); a new criterion-based physical testing procedure for entry into seven physically demanding Combat Arms MOSs.

The Women's Health Service Line (WHSL) manages the unique needs of women by building sound fundamentals in perinatal and newborn services, as well as gender-based programs. The WHSL was instrumental in the development of the MEDCOM Breastfeeding and Lactation Support Policy to ensure the MTFs incorporate the "Ten Steps to Successful Breastfeeding" concepts and ensure standardized breastfeeding education for all personnel who care for the mother and infant. This policy also supports the Army Directive 2015-43, Revised Breastfeeding and Lactation Support Policy, to ensure a designated place to express milk when employees/Soldiers return to work.

Sexual Assault / Sexual Harassment Prevention

The Army and Army Medicine continue to confront the complex challenges of sexual assault. 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. Our goal is to be a nationally recognized leader in providing patient-centered responses to all victims of sexual violence

Regardless of evidence of physical injury, all patients presenting to a MTF with an allegation of sexual assault receive comprehensive and compassionate treatment. All examinations are completed in accordance with Department of Justice (DOJ) "National Protocol for the Sexual Assault Medical Forensic Examinations Adult/Adolescents" current recommendations and training guidelines. They are offered a sexual assault medical forensic examination (SAMFE) conducted by a trained and competent SAMFE professional at the MTF or at a local facility through a memorandum of agreement. USAMEDCOM also provides at least one Sexual Assault Nurse Examiner (SANE) at every Military Treatment Facility (MTF) with a 24/7 emergency room (ER).

Follow on care is coordinated and managed through the Sexual Assault Medical Management Team (SAMMT) at each MTF and the Sexual Assault Response Coordinators (SARCs), and Victim Advocates (VAs). The AMEDD SAMMT is designed to provide immediate and long-term patient care, from assessment of risk for pregnancy, options for emergency contraception, risk of sexually transmitted diseases/infections to include HIV prophylaxis, and necessary follow-up care and services. All patients, whether victims or suspects, are offered a referral to Behavioral Health at their first encounter and are encouraged to receive follow on psychological care. Long-term care plans are tailored to the meet the individual patient's medical and behavioral healthcare needs.

Victims will not be re-victimized through loss of privacy and dignity. Whether the victim elects restricted or unrestricted reporting, confidentiality of medical information will be maintained in accordance with Health Insurance Portability and Accountability Act (HIPAA) guidelines. Scope and standards of medical care are the same, regardless of restricted or unrestricted reporting.

The Office of the Surgeon General (OTSG) developed the first Sexual Assault Medical Forensic Examiner for Adult/Adolescent curriculum now universally taught by the AMEDDC&S. The SAMFE curriculum and training will be taught as a tri-service program effective FY17 and meets or exceeds the Department of Justice (DOJ) national protocols and training standards. This inter-service effort for training will standardize the delivery of care provided to sexual assault patients and suspects.

Womack Army Medical Center at Fort Bragg, NC could serve as a case-study in bringing the medical facility and community closer together in responding to SHARP incidents. Womack has established a monthly training session that includes a forensics community of interest comprised of the MTF, installation, community, law enforcement, and prosecutors. This session allows personnel to review cases, identify best practices, and work together to address SHARP requirements. Womack is also currently planning to conduct a 2-day recertification session for SAFME personnel as well as a yearly summit for the local forensics community. The efforts at Womack are indicative of an engaged, proactive community of experts.

FORCE DEVELOPMENT

The Joint Concept for Health Services (JCHS) describes how the future Joint Force will provide Globally Integrated Health Services in support of Globally Integrated Operations. It describes a future operating environment that is more unpredictable, complex, and potentially more dangerous than today. The JCHS envisions a shift from the relatively static operations in Iraq and Afghanistan to sustained engagement and force projection/crisis response operations.

In future operations, Army Medicine capabilities must be able to rapidly aggregate and disaggregate in support of forces that are dispersed over long distances. Army Medicine capabilities must be sufficiently modular, interoperable, agile, tailorable, and networked to enable the Joint Force Commander to quickly and efficiently combine and synchronize capabilities. Additionally, we must be prepared to operate in austere, expeditionary environments without the benefit of a robust theater medical infrastructure. We must continue to develop agile and adaptive leaders who are able to effectively operate in complex environments.

The Army Medical Department Center and School (AMEDDC&S) / Health Readiness Center of Excellence (HRCoE) is leading our efforts to develop agile and adaptive leaders while evaluating our training, doctrine, and capabilities to ensure we are postured to support the Army in future operations.

Published in August 2015, The Early Entry Medical Capabilities (EEMC) Concept of Operations (CONOP) is the product of analysis conducted by the AMEDDC&S to identify medical capabilities required to support future Joint and Army entry operations. The CONOP identifies six major capability areas: Battlefield Trauma Management, Trauma System, Medical Evacuation and En-Route Critical Care, Medical Training and Preparedness, Medical Information Management, and Mobility, Protection and Sustainment. AMEDDC&S is conducting ongoing studies in these areas to improve medical capabilities in support of early entry operations in the future.

To provide more realistic combat casualty care training at the squad level, AMEDDC&S developed the Exportable Tactical Combat Casualty Care training. This training provides units with three days of progressive training beginning with classroom instruction, progressing to practice using virtual environments, and culminating in

application using advanced combat casualty mannequins that breathe, bleed and are visually modeled realistically portray severe trauma. Also, to enhance training we are looking at bringing the Ranger First Responder model of medical care to the greater Army.

In 2012, the AMEDDC&S began the Critical Care Flight Paramedic (CCFP) Training Program to provide flight medics with additional paramedic, critical care training, and civilian certifications. Since 2012, 350 critical care paramedics from all components have graduated from this program. In 2015, the AMEDDC&S opened the CCFP Transport Medical Training Laboratory to enhance training for critical care paramedics. This immersive training environment utilizes multiple state-of-the-art Human Patient Simulators, a static airframe medical suite, and a configurable room that supports simulated combat casualty care from the point of injury through medical evacuation, forward surgical hospital, and the combat support hospital.

AMEDDC&S is developing the science of Prolonged Field Care (PFC) to support a future operating environment where historic evacuation planning timelines may not be achievable. It is evaluating data from the Department of Defense Trauma Registry (DoDTR), Joint Trauma System (JTS), and Armed Forces Medical Examiner (AFME) and conducting a review of all Clinical Practice Guidelines to determine what should or could be accomplished in the field. It is also developing the criteria for the enhanced medic of the future including Prolonged Field Care (PFC) principles, telemedicine capabilities and remote primary care to be incorporated into future training programs of instruction.

AMEDDC&S developed the Forward Resuscitative and Surgical Team (FRST) based on lessons learned from Iraq and Afghanistan. The design was approved in 2015 with the medical equipment set approved in 2016. The FRST provides two surgical elements and two resuscitative elements that enable it to conduct split based operations. It is rapidly deployable and equipped to provide continuous operations in conjunction with the supporting medical company for up to 72 hours. It allows for urgent initial resuscitation and surgery for otherwise non-transportable patients.

Demonstrating institutional agility, the AMEDDC&S is currently organizing, training, equipping and deploying a regionally aligned medical team capable of

providing immediate forward resuscitative field care, prolonged field care and enroute critical care in support of enduring AFRICOM operations. This initiative enhances the AMEDD training strategy development with San Antonio Military Medical Center (SAMMC), Walter Reid Army Institute of Research (WRAIR)/Global Emerging Infections Surveillance (GEIS), US Army School of Aviation Medicine and MEDCOM education and training capabilities integrated into the pre-deployment CONOPs and mission analysis.

Medical Research

The U.S. Army Medical Research and Materiel Command (USAMRMC) is the Army's medical materiel developer, with responsibility for medical research, development, and acquisition (RDA), as well as medical logistics management. The USAMRMC manages the full life-cycle of medical technologies and materiel, from discovery through development, procurement, maintenance and disposal to support the readiness and optimal health of our armed forces; to provide our health care providers with technologies to protect Soldiers from disease and injury and to provide optimal care for casualties, particularly on the battlefield. USAMRMC conducts or manages groundbreaking research in combat casualty care (CCC); Traumatic Brain Injury (TBI); Psychological Health; and infectious diseases to protect against global disease threats as well as post-injury research in rehabilitative and regenerative medicine to improve the care and quality of life of severely injured Service Members. It is important that funding and planning decisions made today must preserve the Army's core medical research competencies through continued medical research investments. These investments sustain critical capabilities that ensure strategic flexibility to avoid technological surprise as we respond to future operational threats.

The USAMRMC has spearheaded many major advances in trauma research and development. A recent success is a first-of-its-kind endovascular (inside the blood vessel) device (ER-REBOA™) for hemorrhage control and resuscitation that recently obtain a Food and Drug Administration clearance. The ER-REBOA™ catheter recently had its first known use by a military surgeon working at a civilian trauma center, where a gun-shot victim was resuscitated after nearly bleeding to death. In an effort to

conserve and maximize the return on trauma research investments, the USAMRMC has awarded the first-of-its-kind National Trauma Research Database contract to develop a common repository of data stemming from DoD-funded trauma research. Advances stemming from this research program and lessons learned from operational trauma care in Iraq and Afghanistan are transforming care of civilians injured as a result of violence, accidents and natural disasters.

The U.S. Army Medical Research and Materiel Command's TBI research portfolio includes projects not only related to TBI, but also to brain health. With Congress' investment, the DoD funded the development of an FDA approved TBI assessment technology, the "Ahead 200." This device uses a disposable headset and commercial smartphone technology as an adjunct to standard clinical practice to aid in the evaluation of patients who present as having a mild traumatic brain injury within 24 hours of injury, but may have a severe or life-threatening TBI and are being considered for a head Computed Tomography (CT).

Historically, infectious diseases are responsible for more US casualties than enemy fire. Continued progress to address these emerging threats requires sustained 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 emerging disease threats. Our research efforts in this area are leading to progress in the development of vaccines, treatment and preventive drugs, human diagnostics, and vector control tools. Two malaria treatment drugs are expected to be licensed in 2018; two malaria vaccine candidates are expected to be transitioned to advanced development (AD) in FY18 (safety and effectiveness clinical trials); and one malaria prophylaxis drug is expected to transition to AD in FY19. Finally, we are conducting early clinical trials to evaluate the safety and immunogenicity of vaccines targeting Hemorrhagic Fever with Renal Syndrome and organisms causing bacterial diarrhea.

The coordinated and swift response to the Ebola virus outbreak demonstrated the value of continued investment in infectious disease research and development capabilities, to include critical subject matter expertise and overseas laboratory infrastructure. The Ebola Virus Disease (EVD) research and development (R&D) efforts,

executed at the USAMRMC and funded by the Chemical and Biological Defense Program (CBDP) and industry partners, contributed to the development of investigational EVD therapeutics, vaccines and developed the first Emergency Use Authorization (EUA) Ebola Virus Diagnostic Assay. The portfolio of potential treatments for Ebola under development includes biologics, engineered antivirals, and products to boost the host's own immune system.

The latest Public Health concern that has Global Health implications is the Zika virus. This mosquito-borne Flavivirus is currently progressing through the Americas; local transmission has been reported in over 30 countries and territories in the region. There is no vaccine or effective therapeutic yet for disease prevention or treatment. There is a need for better diagnostic assays to quickly and clearly differentiate between similar viruses and to detect past Zika infection. The USAMRMC has resident Subject Matter Experts (SME) with years of R&D experience in the study of the Flavivirus family of infectious diseases and the Aedes mosquito. Our SMEs are currently participating as Army and DoD representatives in several interagency and international meetings and committees as they communicate and coordinate efforts to address the current concerns with the Zika virus outbreak.

Further, the USAMRMC is continuing bio-surveillance and virus characterization activities through the overseas and domestic laboratories. USAMRMC laboratories have Zika virus isolates and are in the process of obtaining more geographically distinct isolates to support current biosurveillance and potentially expanded R&D activities. The Centers for Disease Control (CDC) lead the efforts to submit an Emergency Use Authorization (EUA) to the Food and Drug Administration (FDA). On February 26, 2016, the FDA approved an Emergency Use Authorization (EUA) for CDC Zika Immunoglobulin M (IgM) Antibody Capture Enzyme-Linked Immunosorbent Assay ("Zika MAC-ELISA"). USAMRMC is now working in support of the National Laboratory Response Network.

Streamlining Structure

Army Medicine continues to evaluate its headquarters structure to ensure it is properly sized and aligned to support the Army. In Fall 2013, the AMEDD Futures Task

Force was established to review the MEDCOM headquarters structure and provide recommendations on how to best balance and align it. The Task Force recommended a flattened and more integrated structure that is geographically aligned to support the Army. The Secretary of the Army approved this reorganization on April 27, 2015 and MEDCOM initiated its transformation on July 8, 2015.

By the end of the two year implementation in FY17, the MEDCOM will transform from 20 to 14 subordinate Command HQs. This 30% reduction of headquarters will reduce our administrative overhead structure to less than 4.2% of MEDCOM's total requirements and authorizations. We have completed transformation of fifteen functional regional command HQs to four multi-disciplinary Regional Health Commands (RHCs) by merging regional headquarters for public health and dental. RHCs are a single point of accountability for health readiness to regionally aligned forces around the globe. Within the Continental United States, RHC-Atlantic and RHC-Central are aligned with XVIII Airborne Corps and III Corps installations respectively. Overseas, RHC-Pacific aligned with U.S. Army Pacific to support the Army's strategic Rebalance to the Pacific. RHC-Europe is aligned with U.S. Army Europe and U.S. Army Africa. Finally, we transitioned the headquarters for the Public Health Command, Warrior Transition Command, and Dental Command to elevate and integrate them as functional key staff at the MEDCOM headquarters.

Simultaneously, a work group was established to review the executive leadership within our MTFs. The results of this study led to an executive leadership model borrowed from the US Navy, the AMEDD Health Executive Leadership Organization Structure (HELOS), which was approved for implementation on 12 Jun 15. The model standardizes the leadership structure for medical centers, large hospitals, small hospitals, and clinics. It provides increased leadership opportunities at the deputy level and enhances oversight of quality, safety, the patient experience, staff development, and productivity within all MTFs. The new leadership positions will provide additional opportunities to groom future hospital and medical center commanders. The endstate will be more experienced leaders who are more accountable.

Caring of Our Beneficiaries

TRICARE is an excellent benefit tailored to support our beneficiaries and their unique needs and situations while also supporting readiness by providing reinforcing capacity for our medical treatment facilities. Most agree that change is necessary to ensure the long-term sustainability of the program and to improve performance. However, reform must preserve the All-Volunteer Force and honor the sacrifices of our Soldiers and their Families. I support the TRICARE reforms proposed in the FY17 President's Budget.

Reforms should inspire beneficiaries to return to our direct care system and military run medical facilities. I believe the best place for them to receive care is in our military treatment facilities where we understand their needs, can manage and document their care, ensure quality, and can ensure their readiness.

Reforms should incentivize health and healthy lifestyles. This is key to long-term cost control.

We must ensure our beneficiaries have access to high quality, safe healthcare in our MTFs and in the TRICARE network. To this end, we must increase transparency and exchange of data between both healthcare systems.

Reforms must not increase the financial burden on Active Duty Soldiers or Active Duty Family Members and minimize impact to our retired population. Any increased financial burden on retirees must be modest and not inhibit them seeking necessary medical care in our facilities.

Conclusion

Army Medicine is the Nation's premier and most versatile medical organization meeting the ever-changing challenges of today. No other healthcare organization in the world has the scale and scope of Army Medicine. No other healthcare organization in the world has the diversity, depth, and breadth of Army Medicine. No other healthcare organization in the world has the ability to support the continuum of care from the battlefield to garrison and in any environment imaginable. No other healthcare organization in the world provides the unique and integrated capabilities that Army Medicine delivers on a daily basis, around the world, in support of our Nation and our

Army. As the military health care reform discussion continues we must remain focused on maintaining readiness while continuing to improve the health of all those entrusted to our care.

While our system has proven very successful over the last 14 years of supporting the Warfighter, we need to continue to improve and evolve it to meet the changing needs of our Nation's Army. No other health organization is required to provide, nor is capable of providing, the full spectrum of care from point of injury or illness on a battlefield through rehabilitative care while continuing to maintain high quality care in garrison environments for its beneficiaries.

I am committed to improving readiness, enhancing the healthcare delivered to our beneficiaries, evolving to support the Army in future conflicts, and to taking care of our Soldiers, civilians, and their Families.

We remain fully committed to work with Congress, DoD, and all those entrusted to our care to improve our system.

I want to thank my partners in the DoD, the VA, my colleagues here on the panel and the Congress for your continued support.

Lt. Gen. Nadja Y. West



**Surgeon General of the U.S. Army and
Commanding General, U.S. Army Medical Command**

LTG Nadja Y. West is the 44th Surgeon General of the United States Army and Commanding General, US Army Medical Command.

LTG West is a graduate of the United States Military Academy with a Bachelor of Science Degree in Engineering. She earned a Doctorate of Medicine Degree from George Washington University School of Medicine in Washington, DC.

She completed her internship and residency in Family Medicine at Martin Army Hospital, Fort Benning, GA. During this assignment, she deployed to Operation Desert Shield with the 197th Infantry BDE, 24th ID, and was attached to the 2/69th Armor BN during Desert Storm. She then served at Blanchfield Army Hospital, Fort Campbell, KY as a staff family physician and then Officer in Charge of the Aviation Medicine Clinic. She also participated in a medical mission with the 5th Special Forces Group (Airborne).

LTG West completed a second residency in dermatology at Fitzsimons Army Medical Center and University of Colorado Medical Center in Denver, CO. She then served as Chief, Dermatology Service at Heidelberg Army Hospital, Germany. LTG West then served as Division Surgeon of the 1st AD, Bad Kreuznach, Germany; deploying to the former Yugoslavian Republic of Macedonia and Kosovo as Deputy Task Force Surgeon.

LTG West served as Chief, Department of Medicine and Dermatology Service at 121st General Hospital in Seoul, Republic of Korea. LTG West then commanded McDonald Army Community Hospital, Fort Eustis, VA. After command she served as Deputy Commander for Integration at the National Naval Medical Center, Bethesda, MD. She then served as J-3, Director of Operations, Joint Task Force National Capital Regional Medical. Next, she commanded Womack Army Medical Center, Fort Bragg and went on to serve as Commanding General, Europe Regional Medical Command.

LTG West served as Deputy Chief of Staff, G1/4/6, Office of the Surgeon General, Falls Church, VA. Her most recent assignment was Joint Staff Surgeon at the Pentagon. As Joint Staff Surgeon she served as chief medical advisor to the Chairman of the Joint Chiefs of Staff and coordinated all Health Services issues related to include operational medicine, force health protection, and readiness within the US military.

LTG West completed the Army Medical Department Officer Basic and Advanced Courses, and also graduated from the Army Command and General Staff College and the National War College.

Her awards and decorations include the Distinguished Service Medal, Defense Superior Service Medal, Legion of Merit with three Oak Leaf Clusters, Defense Meritorious Service Medal, Army Meritorious Service Medal with two Oak Leaf Clusters, Army Commendation Medal, Army Achievement Medal with

two Oak Leaf Clusters, NATO Medal, Combat Medical Badge, Flight Surgeon Badge, Parachutist Badge, Air Assault Badge, and Gold German Armed Forces Proficiency Badge. She is a member of the Order of Military Medical Merit, Order of Saint Christopher, a Fellow of the American Academy of Dermatology and the American Academy of Family Practice.

Mr. FRELINGHUYSEN. Thank you, General.
Admiral Faison, welcome.

SUMMARY STATEMENT OF ADMIRAL FAISON

Admiral FAISON. Thank you, sir. Chairman Frelinghuysen, Ranking Member Visclosky, distinguished members of the committee, it is my honor to represent the men and women of Navy Medicine: 63,000 dedicated professionals who every day honor the trust placed in our hands in caring for those who have sacrificed to defend our freedom. I can report to you that your Navy Medicine team is operating forward today, and supporting the Navy-Marine Corps mandate to be where it matters when it matters and ready to respond in time of crisis. We are grateful for your strong and unwavering support of our servicemembers and their families. I would like to highlight a few important points.

First, military readiness is our mission. Navy Medicine protects, promotes, and restores the health of Sailors and Marines around the world, at home or deployed, and in all warfare domains. In an increasingly complex world, as our Navy and Marine Corps stands watch and stands ready to defend our national interests around the globe, Navy Medicine stands there as well with them to protect and care for them.

As an agile, rapidly deployable medical force, this is what sets us apart from civilian health care. No civilian health plan in the world routinely leaves their families and home on a moment's notice, and willingly goes in harm's way to care for those in need. No health care plan in the world routinely and daily puts their lives on the line in battle to defend and care for their patients. And no health care plan in the world experiences the staffing deployments and turnover we routinely experience, and still delivers world class care. The proof is on the battlefield. Highest combat survival in recorded history. Wounded warriors are alive today who, in any previous war, would have died of their injuries. Every wounded warrior is testament to the effectiveness of the Military Health System because every one of them, from point of injury on the battlefield to advanced treatment in our medical centers were cared for completely and exclusively by the men and women who got their training, their experience, and their preparation in our Military Treatment Facilities.

Those facilities are the foundation of battlefield survival, and, in my opinion, as a former commander of a combat Expeditionary Medical Facility, a robust Military Health System is critical to future battlefield survival. Unparalleled combat survival in the longest conflict in our Nation's history, is proof that a robust Military Health System that is also our training and research platforms for our battlefield providers, from corpsmen to physician, is essential to combat survival.

These three facts are not in dispute. We have the highest combat survival in recorded history. Many wounded warriors are alive today who would have otherwise died of their injuries in any previous conflict. Every wounded warrior received their care, from point of injury on the battlefield through their recovery in our medical centers, exclusively by men and women who received their

training, clinical experience, and preparation in our military treatment facilities.

I should add that investments in medical education and training, along with research and development, are critical to both meeting current and future mission requirements. Our training programs are among the best in the nation, while our global R&D is helping to keep our personnel safe today, while countering the threats of tomorrow. This is a system that works and has proven itself on the battlefield time and time again in the thousands of men and women alive today and home with their families, and the overall health of the military force and their families.

It is also a system that is not perfect. The services are working hard to improve access, care continuity, convenience, and satisfaction that we provide in peacetime. We have made important strides in each of these areas while concurrently increasing enrollment, network recapture, staffing realignments, and other efforts to ensure we provide the clinical experience our staff needs to preserve skills, competencies, and ultimately combat survival in the next conflict. More needs to be done, and none of us underestimates the magnitude of the effort required to improve our peacetime healthcare services.

We are committed to continuing the necessary reforms to improve our patient experience, and most importantly, their health. But we must do so without putting at risk the very system which has yielded such unprecedented battlefield survival. We need your help in this effort. For your tireless support, I thank you for helping us to ensure that those Sailors and Marines that stand the watch today and in the future will have the same or better survival than today's wounded warriors have had. In our hands is a sacred trust to do all in our power to return home safely America's sons and daughters who have sacrificed to defend our freedom. I thank you for helping us to honor that trust.

[The written statement of Admiral Faison follows:]

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THE HOUSE COMMITTEE ON APPROPRIATIONS

STATEMENT OF

VICE ADMIRAL C. FORREST FAISON III, MC, USN

SURGEON GENERAL OF THE NAVY

BEFORE THE

SUBCOMMITTEE ON DEFENSE

OF THE

HOUSE COMMITTEE ON APPROPRIATIONS

SUBJECT:

DEFENSE HEALTH PROGRAM

March 22, 2016

NOT FOR PUBLICATION UNTIL RELEASED BY
THE HOUSE COMMITTEE ON APPROPRIATIONS

Chairman Frelinghuysen, Ranking Member Visclosky, distinguished Members of the Subcommittee, it is my honor to represent the men and women of Navy Medicine – a team of 63,000 dedicated professionals, delivering world-class care, anytime, anywhere. We are grateful for your steadfast support and I can report to you that Navy Medicine is mission-ready and unified in our commitment to serve those entrusted to our care.

Strategic Alignment

Readiness, the core mission of the Navy Medicine, is inextricably linked with those we serve, the United States Navy and United States Marine Corps. We are fully engaged with supporting our maritime strategy as articulated by the Secretary of the Navy, Chief of Naval Operations and Commandant of the Marine Corps. Our leaders expect us to keep their Sailors and Marines healthy, ready to deploy, to deploy with them, as well as to protect their health, and when necessary, restore their health. Most importantly, we support the Navy-Marine Corps mandate to be where it matters, when it matters and ready to respond in time of crisis.

Since becoming the Navy Surgeon General in December 2015, I have reaffirmed that our most important strategic imperative remains readiness: Keeping Sailors, Marines and their families healthy and ensuring that the Navy Medicine team is a ready medical force. The obligation to keep our nation's service members and their families healthy is both a privilege and sacred trust earned over years by providing care at sea, on the battlefield and around the world in our medical centers, hospitals and clinics. Today's Sailors and Marines are the most highly trained, specialized, and educated in our history. Because of this, every one of them is critical to the mission and the need to keep them and their families healthy has never been greater.

We must deliver ready capabilities to the operational commanders, maintain the clinical currency for our medical forces, and effectively integrate technology to improve the health and readiness of Sailors and Marines. We recognize that our collective efforts are strengthened given every uniformed member of Navy Medicine has a contingency assignment to an operational unit and, as such, has a distinct and important role in supporting our mission.

Navy Medicine, in conjunction with the Army and Air Force, is leveraging joint opportunities with the Defense Health Agency (DHA). The DHA provides support to the Services in the form of shared services including: facilities planning; medical logistics; health information technology; health plan; budget and resource management; contracting; pharmacy; research, development and acquisition; medical education and training; and, public health. Their efforts in delivering shared services support and common business practices across the Military Health System (MHS) are focused on efficiencies and savings. The work is important to the Services' missions as well as the Defense Health Program as we work to ensure optimal resource efficiency in our mission.

We are grateful to the Committee for supporting continued resource requirements and placing trust in us to provide outstanding care to our beneficiaries. Navy Medicine is committed to sound fiscal stewardship at all levels of our enterprise and this includes sustaining our active audit readiness posture to validate we are being good stewards of these resources. The President's FY2017 budget adequately funds Navy Medicine to meet its medical mission for the Navy and Marine Corps. The President's budget for FY2017 also contains key TRICARE proposals which are needed to modernize the Department's health care program. I support these reform proposals as they will continue to sustain military readiness, improve beneficiary choice, and improve access as well as help realize cost savings. In addition, these initiatives will

simplify TRICARE while encouraging the use of military treatment facilities (MTFs) – vital for medical readiness. These proposals will strengthen the Military Health System (MHS) and support sustainable health care benefits for all our beneficiaries.

The proposed legislative changes must be supplemented by important work within the MHS to create opportunities for even greater exceptional care to our patients. We must aggressively assess the transformative opportunities presented in today's environment to provide value-based care and employ technologies that make good clinical and mission sense. These efforts must include improving standardization of clinical, non-clinical and business processes while reducing variation. Within Navy Medicine, we are committed to continuous performance improvement with keen focus on access, quality and safety throughout our enterprise. Our collective efforts in measuring key performance improvement metrics, as well as our strategic collaborative partnerships with leading civilian organizations such as the Joint Commission and the Institute for Healthcare Improvement (IHI), are necessary as we establish Navy Medicine and the MHS as a high reliability organization (HRO).

Our Mission is Readiness

Navy Medicine is an agile integrated, rapidly deployable health system. We protect and restore the health of Sailors and Marines around the world, ashore and afloat, in all warfare domains. Our personnel, including those organic to the operational forces and those working in our MTFs, must be capable of providing life-saving and health sustaining specialized capabilities to the warfighters in all domains and locations. The spectrum is wide, but the mission is straightforward: Provide force health protection anytime, anywhere. This is what sets us apart from civilian medicine.

We must recognize that the direct care system – our CONUS military treatment facilities

(MTFs) – are our most important readiness training platforms. These facilities are critical to sustaining the vital skills and clinical competencies for our medical personnel who are saving lives on the battlefield. As a former commander of a deployed expeditionary combat medical facility, I cannot overstate the importance of robust clinical experience to having a fully trained and ready medical force capable of sustaining unprecedented survival on the battlefield. Fifteen years of combat with the highest combat survival in recorded history by medical personnel who got their training and preparation in these MTFs proves their value and critical role in combat survival. From physicians to nurses to corpsmen, our personnel want to deliver health care and need that strong clinical experience to sustain and enhance their skills in preparation for the next deployment. Our CONUS MTFs provide important surge capabilities, while our OCONUS facilities support our forces operating forward much like our expeditionary medical capabilities onboard ships.

As a ready medical force, we have a responsibility to ensure we are as ready for the next mission or conflict. The improved battlefield survival rates we realized over the last 15 years of war were the result of highly trained, properly equipped medical personnel from our MTFs who had the capabilities to rapidly implement combat casualty care best practices and lessons learned. These outcomes were achieved and then sustained by the collective hard work of the men and women of military medicine and the critical support provided to us by Congress. Our challenge remains holding these important gains moving forward.

We are leaning forward to improve the effectiveness and efficiency of our CONUS MTFs to provide that robust clinical experience to preserve skills and competencies by moving more workload in-house, growing our patient enrollment, rebalancing staff and investing in our graduate training programs. This also has a side benefit of reducing overall private sector care

expenditures. An example of our efforts is the Navy CONUS Hospital Optimization Plan which we executed over the last two years to better sustain the operational readiness skills of our providers and optimize primary and specialty care. These efforts resulted in changes in services at nine MTFs and realigned our graduate medical education (GME) pipeline.

I believe an erosion of our direct care system would have significant adverse consequences on our ability to sustain medical force skills and competencies. This will have direct negative impact on our medical readiness capabilities and also potentially degrade our ability to recruit and retain our medical professionals who seek a professionally rewarding clinical experience. We also need to recognize that comprehensive beneficiary care in our MTFs is directly linked to skills sustainment of our medical force and, from that, survival on the battlefield. Our beneficiaries, by agreeing to get their care in our MTFs, are helping to ensure we save lives on the battlefield in the next conflict.

Navy Medicine continues to sustain unparalleled levels of mission success, competency and professionalism while providing world-class trauma care and expeditionary force health protection to U.S. and coalition forces in southern Afghanistan in support of Operations RESOLUTE SUPPORT and FREEDOM'S SENTINEL. As troop levels in Afghanistan remain constant, the forward deployed NATO Role 3 Multinational Medical Unit continues to provide high-level evaluation, resuscitation, surgical intervention, post-operative care, physical therapy, behavioral health, and patient movement services expected of Navy Medicine by our combatant commanders. The Role 3 maintains 12 trauma bays, four operating rooms, six intensive care beds and six intermediate care beds, with a staff of 87 personnel.

Global Health Engagement (GHE) is an important component of sustaining readiness since Navy Medicine is uniquely positioned to support Humanitarian Assistance / Disaster Relief

(HA/DR) missions. Our hospital ships, USNS MERCY (T-AH 19) and USNS COMFORT (T-AH 20) are capable of getting underway quickly to support HA/DR efforts here and around the world as evidenced by relief efforts along the Gulf Coast following Hurricane Katrina, Indonesia in the aftermath of the tsunami and in Haiti following the devastating earthquake. We provide the full range of medical skills including primary and trauma care, public health, and disease management.

Our participation in humanitarian civic action (HCA) missions and military-to-military exercises provides unmatched training opportunities for our personnel and builds important joint, interagency and international relationships. These missions support training for crisis conditions and focus on enhancing clinical expertise and preventive medicine and improving disaster preparedness in collaboration with host nation, partner nation, non-governmental organizations (NGOs) and interagency partners. In FY2015, both MERCY and COMFORT were underway and participated in HCAs. MERCY was part of Pacific Partnership 2015, the largest HCA in the Pacific Command area of responsibility. The medical team provided medical and dental care ashore to patients in seven countries in the Pacific Rim/East Asia and performed nearly 700 surgeries aboard MERCY. COMFORT, operating as part of Continuing Promise 2015 in South America/Caribbean, delivered care in 11 countries and conducted over 1,200 surgeries onboard.

Our MTFs are also filling a vital role in preparing Navy Medicine to respond to both naturally occurring public health emergencies. Our larger MTFs regularly rehearse their pandemic response plans, and response when needed, to include the dispensing of vital pharmaceutical countermeasures and antivirals from both the Navy stockpile and state level Strategic National Stockpile supplies to DoD installation populations at Closed Points of Dispensing (CPODs).

Our force health protection mission is also evident in response to the Zika virus. In support of these efforts, our Navy Liaison Officers assigned to the Centers for Disease Control and Prevention (CDC), United States Agency for International Development (USAID), Department of Health and Human Services (HHS) and the World Health Organization (WHO) are actively engaged to ensure DoD is coordinated with the whole of United States Government (USG) response. We are continuously educating our Sailors, Marines and family members along with Fleet and USMC commanders about the Zika virus and the importance of prevention and taking appropriate precautions. Our providers are following CDC clinical guidance and collaborating with public health partners to protect our patients and staff. The Navy Marine Corps Public Health Center (NMCPHC) continues to provide updated guidance to Navy and USMC installation commanders regarding the most effective methods to reduce virus-spreading mosquito populations. In addition, Navy Medicine now has in-house testing capabilities for Zika virus infection in humans at the Naval Medical Research Command (NMRC) and at our laboratory in Lima, Peru, the Naval Medical Research Unit Six.

Optimizing Care to Impact Health and Readiness

There is a transformation underway in health care. We are witnessing rapid changes in clinical care brought about by innovations in disease diagnosis and treatment. Advances in areas such as digital imaging, genetics, precision medicine, pharmaceuticals and therapeutics are all having significant impact on the delivery and cost of patient care.

In addition, we know that our patients want convenience and, where possible, use of virtual technology to support their health care needs. This is the impact of the millennials on health care and it is not unique to the military although we are more impacted by it because of our patient demographics: Based on our most recent available data, 72 percent of enlisted Sailors and 85

percent of enlisted Marines are 30 years old or younger. They and their families are very comfortable with digital technology and expect to incorporate their smart phones and tablets into their daily health care transactions whenever possible. Moving forward, traditional portals of care within our direct care system and the supporting TRICARE networks must be complemented with innovative and interconnected technological approaches to provide virtual outreach and care, including handheld device applications, telehealth and other venues of virtual care.

Ready access to safe, high quality care is foundational to our primary care delivery model. Within Navy Medicine, our focus areas include promoting additional options for accessing care, streamlined by standardized appointing processes. Nearly all of Navy Medicine's 790,000 MTF enrollees are receiving care in a National Committee for Quality Assurance (NCQA)-accredited Medical Home Port (MHP). These patients have seen an improvement in same-day health care access with their MHP team, augmented by virtual access via e-mail communications with providers and access to a 24/7 Nurse Advise Line (NAL). We have increased our same-day appointments by 20 percent and 91 percent of our patients indicated satisfaction with getting care when needed. There has been a 40 percent increase in the number of beneficiaries utilizing secure messaging over last year and survey respondents indicated 97 percent overall satisfaction with this capability. As a result of this enhanced access, providing nearly five million outpatient visits each year, readiness, continuity, health outcomes and patient satisfaction have improved while unnecessary emergency room usage has decreased. We are also expanding our Marine-Centered Medical Homes (MCMHs) and Fleet-Centered Medical Homes (FCMHs) to enhance access and care for our operational forces. We currently have 23 MCMHs and five FCMHs with efforts under way to expand to additional locations in 2016.

We have an unwavering commitment to patient safety and eliminating iatrogenic harm and while fostering an ethos of trust, reporting and improvement. Our MTF commanding officers know my expectations: Navy Medicine leaders must be directly engaged in creating and sustaining a culture of patient safety at their commands, including conducting weekly leadership rounds, providing formal recognition for speaking up and promoting the ongoing use of TeamSTEPPS™ (Team Strategies and Tools to Enhance Performance and Patient Safety). We continue to see progress in our patient safety efforts and I am pleased that three of our MTFs were recognized by DoD Patient Safety Awards in 2015.

Navy Medicine supports Operational Stress Control (OSC) initiatives and post-traumatic stress disorder (PTSD) prevention and education efforts for both medical and line-led educational and assessment programs. A comprehensive and inclusive approach to building and preserving resilience is fundamental to developing the capacity to cope with challenges and stressors associated with military service. We continue to provide timely and evidenced-based mental health care for our Sailors, Marines and their families. Our psychological health programs support the prevention, diagnosis, mitigation, treatment and rehabilitation of the full spectrum of mental health conditions utilizing the most current DoD and the Department of Veterans Affairs (VA) Clinical Practice Guidelines.

Improving access and reducing stigma associated with reaching out for help remain important priorities. The Behavioral Health Integration Program (BHIP) integrates mental health providers into our primary care settings to identify and manage issues not requiring specialty care as well as facilitate referrals (and smooth handoffs) for more serious conditions. Within operational settings, we continue to embed mental health providers to provide support where and when they are most needed. The Operational Stress Control and Readiness (OSCAR) program provides

mental health expertise directly in USMC units. Similar programs exist on Navy's large afloat platforms as well as Navy and Marine Special Operations units. Embedded mental health providers reduce stigma, increase access to care and help detect operational stress reactions and injuries early before they lead to decreased mission capabilities. These embedded mental health providers are making a real difference where and when it matters and we are working with Fleet Forces Command and USMC to expand this important capability.

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 11,973 outreach contacts to demobilized service members and provided behavioral health screenings to 10,700 reservists in FY2015. The program also provided 440 visits to reserve units and made 702 presentations to 40,648 reservists, family members and commands. Over 1,700 service members and family members participated in 15 Returning Warrior Workshops (RWWs) in FY2015. RWWs assist demobilized service members and families in identifying issues that often arise during post-deployment reintegration.

Navy Medicine has made significant progress in recruiting mental health providers to meet the demand for services. At the end of FY2015, active component (AC) social worker and mental health nurse practitioner communities are fully manned; while the percentages for psychiatrists and clinical psychologists are 94 and 89, respectively.

Suicide is a tragedy that destroys families and impacts our commands. The goal is to reduce suicide risk by equipping Sailors with information, training, tools, practices and policies to be psychologically healthy, resilient and mission ready. We support the Navy's Suicide Prevention Program on multiple fronts, including the in-depth review of Navy suicides. These reviews are

helping to identify those who may be at increased risk of suicide and emphasize the importance of engaged and proactive leadership, particularly when individuals are undergoing personal or professional transitions. We are also working with the Defense Suicide Prevention Office (DSPO) to advance prevention efforts. Throughout Navy Medicine, we recognize the importance of supporting our shipmates and ensuring we focus on every Sailor, every day.

We are continuing our strong focus on management of traumatic brain injuries (TBI) throughout Navy Medicine including standardizing a system of care in our MTFs that includes prevention, education, treatment and tracking of these injuries. These efforts help ensure that care provided at our MTFs is consistent, incorporates best clinical practices and leverages advances realized over the last several years in the treatment of TBI in the deployed setting. We know that 84 percent of TBIs in the military occur in non-deployed settings, highlighting the need for the care and treatment of these injuries in our facilities. In FY2015, we executed \$10.6 million in DHP funding for the care and management of TBI.

Our Intrepid Spirit Concussion Recovery Center is operational onboard Marine Corps Base, Camp Lejeune. Intrepid Spirit is part of the consortium with the National Intrepid Center of Excellence (NICoE) and provides advanced evaluation and care for service members with acute and persistent clinical symptoms following a TBI. The center averages 50 monthly referrals with 12 - 18 new service members in the program per week. Approximately 90 percent of patients are ready to return to full duty after treatment. Another Spirit Center is planned for Naval Hospital Camp Pendleton.

I am pleased with the continued progress of our Navy Medicine's Reintegrate, Educate and Advance Combatants in Healthcare (REACH) Program in helping our recovering service members. REACH provides an opportunity for our wounded warriors to learn and engage in

various health care fields through hands on training at Navy Medicine activities and develop skills and qualifications for health care careers. REACH is currently active at Naval Hospital Jacksonville, 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. To date, there have been over 200 program graduates, with more than half obtaining federal employment in health care or pursuing college education. As the program continues to produce successful outcomes for our recovering service members, we will look to additional expansion opportunities.

DoD, in conjunction with the Services and Uniformed Services University of the Health Sciences, continues to pursue robust research efforts in support of innovative treatment solutions. Our collaborative efforts with leading academic and research centers are vital to these efforts to advance our understanding of TBI and define best practices. Navy Medicine recently established research collaborations with the University of Pittsburgh's world-renowned Sports Concussion program.

The Navy Comprehensive Pain Management Program (NCPMP) is also integrated with MHP in an interdisciplinary approach focusing on prevention, clinic practice guideline compliance, telehealth, and provider and patient education. In FY2015, NCPMP began implementation of the Stepped Care approach to pain management providing a framework to standardize pain patient classification, increase access to subspecialty care, and improve coordination between primary and specialty providers. NCPMP also completed the first year of Project ECHO™, a telemedicine program that uses a secure, internet-based audio-visual network to connect MHP providers with a team of specialists in an educational, mentoring-based model.

Complementary and Alternative Medicine (CAM) modalities are provided throughout the Navy at various MTFs, dependent upon provider training, background, and clinic capacity. The most commonly available therapies to our active duty personnel include acupuncture and chiropractic services. Acupuncture is currently provided in ten MTF-associated clinics and is used to treat chronic pain, migraine headaches, back and neck pain, anxiety, depression, insomnia, auricular pain and a wide variety of other conditions. In FY2016, the NCPMP is scheduled to expand to include full-time licensed acupuncturist positions at four of our MTFs.

Navy Medicine supports an integrated substance abuse strategy, providing access to high quality services for active duty service members and their families across the diagnostic spectrum, including individuals with complex or comorbid conditions. Navy Medicine's Substance Abuse Rehabilitation Program (SARP), with 53 sites, supports the prevention, diagnosis, mitigation, treatment and rehabilitation of substance use disorders and other mental health conditions, using evidence-based care in accordance with DoD/VA Clinical Practice Guidelines. We incorporate the most current, evidence-based treatments and use innovative information technology approaches to continue supporting those in recovery, even after completion of the acute phase of treatment. The Navy MORE (My Ongoing Recovery Experience) program is an online and telephone-based recovery and support program for patients recovering from moderate to severe substance disorder. MORE offers individually tailored patient education and support over a secure web-based system with world-wide access, 24 hours a day, seven days a week. Access is available to all individuals who complete a SARP program. To date, over 14,000 patients have taken advantage of Navy MORE content and support services.

Navy Medicine, along with the Army and Air Force, has a strong commitment to expanding our telehealth capabilities in order to provide care beyond traditional care settings and eliminate treatment barriers of time and distance, maximizing the availability of finite resources.

Telehealth is particularly important to us because our Navy and Marine Corps forces are forward-deployed around the world, aboard ship and ashore. We support the recent ASD (HA) policy change aimed at enabling health care at the patient's location (virtual visits), as well as other priority objectives of remote health monitoring and global expansion of the asynchronous teleconsultation system. These expanded capabilities also support our efforts to recapture workload into our MTFs. Naval Medical Center Portsmouth (NMCP) initiated the Health Experts on-Line Portsmouth (HELP) program, a secure asynchronous service providing a 24-hour subspecialty consultation for providers at CONUS and OCONUS MTFs and afloat commands within the Navy Medicine East area of responsibility. The program connects NMCP specialists and subspecialists with geographically-dispersed providers and supports important clinical consultations. HELP is also providing higher levels of clinical evidence to support decision-making regarding the medevac of patients from both ships and submarines. During its first year, HELP provided support to 585 cases and prevented 39 medevacs – efforts that improved patient care and readiness. Pilot studies are also underway to evaluate use of the system to reduce wait time for specialty consults, increasing availability of rapid intervention.

We are also expanding the successful Telecritical Care Unit (TCCU) program operated by Naval Medical Center San Diego. TCCU now supports critical care consultations at both Naval Hospitals Camp Pendleton and Camp Lejeune. This capability allows Navy high-demand intensive care physicians to consult directly with providers at these facilities to ensure the right

care at the right place at the right time. Split second decisions can be made in caring for our critically ill patients, avoiding transport or exacerbation of deteriorating conditions.

The Department of the Navy (DON) 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 is committed to the success of the sexual assault prevention and response program and to ensuring the availability of sexual assault medical forensic exams at shore and afloat settings. Consistent with the requirements contained in the FY2015 National Defense Authorization Act, section 539, the Services' Medical Departments adopted the Sexual Assault Medicine Forensic Examiner (SAMFE) course as the framework for uniform training and certification for providers of sexual assault patient care. As of December 2015, Navy Medicine has trained 331 providers under this new standard. SAMFE providers are trained and available to ensure timely and appropriate medical care for sexual assault victims at all appropriate military platforms served by Navy Medicine.

We appreciate your continued support of our military construction requirements as we ensure that our patients have access to outstanding facilities in which to seek their care. In September 2015, we opened the new Clinic Annex at Naval Hospital Camp Lejeune. This new 45,000 square foot clinic leverages the latest advances in health care and evidenced-based design to provide a world-class environment. The new clinic delivers pediatrics, dermatology, educational and developmental intervention services and optical fabrication. The pediatric spaces house MHP teams, with 29 exam rooms, two treatments rooms as well as support spaces. The dermatology clinic provides care in six exam rooms, two laser treatment rooms, an ultraviolet

booth treatment room and clinic support spaces. The clinic also includes spaces for a four bed sleep study suite.

Navy Medicine continues to participate in a wide variety of unique collaborations, sharing agreements and partnerships with the VA. This relationship is important as we continue to assess innovative ways to efficiently and cost effectively share services and work together to meet the needs of both beneficiary groups. Our efforts are evident at the Captain James A. Lovell Federal Health Care Center (FHCC) Great Lakes, a joint use facility with the VA and DoD staff working together to support a single, combined mission. Navy Medicine and the VA continue to support this demonstration project and a thorough evaluation is underway by both agencies with the Report to Congress required by the FY2010 National Defense Authorization Act (NDAA) to be submitted later this year.

Navy Medicine continues to support our injured Sailors and Marines through the Integrated Disability Evaluation System (IDES). IDES is a combined DoD/VA program where DoD determines the fitness for continued service, VA provides a proposed disability rating for use by DoD and a VA letter containing a proposed estimate of the amount of VA benefits to which the member may be due. In many cases, VA's decision on a veteran's claim, which is issued after receipt of the veteran's DD-214, reflects the proposed rating. As a result, the service members transition to civilian life with minimal gaps in benefits or health care. Navy Medicine has primary responsibility to oversee and implement the Navy Medical Evaluation Board (MEB) phase which encompasses the first 100 days of the IDES process. In collaboration with our VA counterparts, Navy Medicine has met the 100-day MEB phase goal consecutively the last four years for Navy service members and three years for Marine Corps service members.

In an effort to improve the treatment of Sailors and Marines on limited duty, we conducted a pilot project at Naval Health Clinic Cherry Point. Initiated in June 2015, the pilot provides for a multi-disciplinary team evaluation for every limited duty case each month. This quality assurance review confirms we have the correct diagnosis, an appropriate treatment plan, an aggressive and timely decision regarding return to duty, or referral to the Disability Evaluation System. Preliminary results during this period are promising. With an average of 300 service members on limited duty, 57 service members were either returned to duty or referred to IDES prior to six months, avoiding a potential additional 147 cumulative months on limited duty. The pilot project will be expanded to additional sites in FY2016 to include Naval Hospital Twenty-nine Palms, Naval Hospital Oak Harbor, Naval Health Clinic Quantico, and Naval Health Clinic Patuxent River.

The contract for the modernization of the electronic health record (EHR) was awarded by DoD in July 2015 and it will have a transformational impact on military medicine. This new EHR will be used in our MTFs and operational environments, onboard our vessels and in the field with Marine forces. It will reduce variation while providing a single platform to access accurate health care data worldwide. The Services, in conjunction with DHA, are fully engaged in the joint implementation efforts to assure the needs of the functional community are well defined and met in this acquisition led by the Program Executive Office (PEO) within Under Secretary of Defense (Acquisition, Technology and Logistics). Navy Medicine Initial Operating Capability (IOC) sites include: Naval Hospitals Bremerton and Oak Harbor and Naval Branch Health Clinics Bangor and Everett. Deployment to these facilities will begin by the end of calendar year 2016.

The health of the force, their families, and all those we serve remains our priority. This

commitment is not volume-based or supply-driven. It's a patient-centered and readiness-focused strategy to help ensure that our service members and their families get the care they need, when they need it, and in the venue most appropriate and convenient to get and keep them healthy. I continue to reinforce this point within Navy Medicine: In order to be the provider of choice for our beneficiaries and provide that strong clinical experience to prepare our staff for the next deployment, we must use every opportunity to enhance patient experience and breakdown any barriers to convenient, patient-centered care. We do that best when they are enrolled to us and we have both the visibility and responsibility for their care in our facilities.

A Mission-Ready Team

I am proud of our Navy Medicine team – our active and reserve personnel, our Navy civilians and their families – whose work is vital to our mission. Whether serving with the operating forces, delivering care in our CONUS or OCONUS MTFs, conducting research, providing training or supporting important mission-specific activities, Navy Medicine personnel are serving with pride and demonstrating Navy Core Values of honor, courage and commitment around the world. We are committed to recruiting, training and retaining a talented and diverse workforce.

Active component (AC) and reserve component (RC) recruiting and retention remains a top priority. It is our pipeline to ensure we are mission-ready. In FY2015, Navy Recruiting attained 100 percent of AC medical department officer goal. Through concerted recruiting and retention initiatives, we reached 100 percent overall AC officer manning. However, we are continuing to monitor some specialty shortfalls including general surgery, oral maxillofacial surgery and critical care nursing.

At end of FY2015 our overall RC officer manning is 95 percent, with Navy Recruiting

attaining 78 percent of the officer recruiting goal. RC Medical Corps recruiting consistently continues to be a challenge, with manning at 83 percent and persistent shortfalls in the specialties of anesthesiology, orthopedic surgery and general surgery. The Nurse Corps is manned at 97 percent while the Dental Corps and Medical Service Corps are fully manned. Higher AC retention has resulted in a smaller pool of medical professionals leaving active duty, thereby contributing to the need for greater reliance on the Direct Commission Officer pathway as a means to increase RC medical personnel assets. We continue to work hand in hand with Navy Recruiting Command and the Navy Reserve Force to implement important recruiting and retention incentives, as well as exploring other opportunities to recruit RC medical personnel.

Navy attained 100 percent of the FY2015 recruiting goal for both the AC and RC Hospital Corps. While overall manning for both components is healthy, we continue to monitor AC Fleet Marine Force Reconnaissance Corpsman specialty shortages primarily due to billet growth driven by Special Operations requirements and training constraints.

I am grateful for your support of accession and retention incentives which have enabled us to realize manning improvements over the last several years. Continued funding has supported these gains and remain critical for the success of AC and RC recruiting and retention. Our efforts are also important as we work to meet our increased Navy Medicine manpower requirements in support of the Marine Corps.

Throughout our system, our federal civilian workforce 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. They provide stability and continuity within our system, particularly as their uniformed colleagues deploy, change duty stations or transition from the military. We continue to emphasize the importance of

attracting and retaining talented civilian personnel within Navy Medicine and use the authorities available to us to meet our requirements.

Excellence in Medical Education

The Naval Medicine Education and Training Command (NMETC) leads our important education and training efforts along with its subordinate commands: Navy Medical Operational Support Center (NMOTC); Navy Medical Professional Development Center (NMPDC); and Navy Medical Training Support Center (NMTSC). Their collective efforts support the full spectrum of relevant and responsive military training and medical education that directly support our readiness and professional development. Our goal is to apply cost-effective learning solutions, fully leveraging partnerships and joint initiatives.

We ask a lot of our hospital corpsmen and it is critical that their training prepare them for their demanding responsibilities. I recently traveled to the Medical Education Training Campus (METC) onboard Joint Base San Antonio-Fort Sam Houston to see firsthand our corpsmen training alongside their Army and Air Force counterparts. The METC is a state-of-the-art center delivering basic and advanced medical education and providing unmatched opportunities for collaboration in a joint training environment. In FY2015, we had over 3,500 Sailors train as hospital corpsmen with another 1,400 trained in advanced technician programs. I am also pleased that 29 Navy Medicine METC instructors obtained either their associate or bachelor degrees and 89 qualified as Master Training Specialists.

Navy is participating in the Uniformed Services University of the Health Sciences Enlisted to Medical Degree Program (EMPD2). The program provides an opportunity for our highly-motivated, academically promising service members to obtain a medical degree. EMPD2 consists of intensive coursework, preparation and mentoring to prepare students for application

to medical school. Upon completion of the 24 month advanced educational program, successful students will be competitive for acceptance to medical school. The first Marine cohort of two students is currently excelling in their first year of the program. Our first Navy cohort will begin their studies later this year.

The Navy Trauma Training Center (NTTC) is an important program to help our personnel hone and sustain their combat trauma skills. NTTC operates at the Los Angeles County + University of Southern California Medical Center (LAC+USC), a renowned Level 1 trauma center. Our medical personnel participate in 21-day course in operational combat casualty care using traditional didactics, team building, battlefield trauma resuscitation and hands-on patient care at LAC+USC. NTCC hosts 11 iterations per year with 24 rotators per course. Since the program's inception in 2002, we have trained approximately 2,900 medical department personnel.

Navy graduate medical education (GME) is critical to our mission of maintaining a tactically proficient and combat-ready medical force – a force of fully trained, clinically competent physicians who are ready to deploy wherever needed. Their training, and the care they provide in our teaching facilities, directly supports our readiness. Strong GME is the hallmark of Navy Medicine and our performance continues to demonstrate the quality of our programs. Our three year average first time board certification pass rate for Navy trainees is 93 percent, exceeding the national average of 88 percent. Our overall pass rates meet or exceed the national average in virtually all primary specialties and fellowships. Our Navy-trained Medical Corps officers are exceptionally well-prepared to provide care to all members of the military family, and in all operational settings and through all echelons of care – from the battlefield to the bedside at our MTFs.

Military GME is critical since we recognize that the civilian sector does not have the capacity to provide the residencies needed to maintain our medical specialty requirements. In addition, advanced training is essential to the recruitment and retention of medical specialists. Navy Medicine works to ensure that our GME training pipeline is adequate to meet our current and projected requirements, including having qualified candidates for all our programs. Specialties that we continue to monitor closely include: general surgery, family medicine, psychiatry and aerospace medicine. Our Dental Corps, Medical Service Corps and Nurse Corps officers also participate in their respective graduate dental and health education program designed to support specialty requirements.

Navy Medicine Research and Development: Countering Threats of Tomorrow

Navy Medicine maintains an important global research and development (R&D) program. Led by the Naval Medical Research Center (NMRC), this eight laboratory, four continent enterprise runs numerous joint Service initiatives and executes a well-established cooperative infrastructure working with universities, industry and, in countries around the world to improve health and advance science. The mission is focused on biomedical research supporting the warfighter and ongoing research and development ensures service members' health is better protected, operational tempo is more effectively maintained and rehabilitation of the ill and injured is continuously improved. NMRC and the seven subordinate laboratories collectively form a Navy Medical R&D enterprise that is the Navy's and Marine Corps' premier biomedical research, surveillance/response, and public health capacity-building organization.

Our research remains operationally focused with important priorities including: 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; undersea and aerospace medicine; and endemic, emerging and deliberate infectious diseases prevention, detection and response. These efforts fully support our readiness by developing R&D products that preserve, protect, treat, or enhance the health and performance of Navy and Marine Corps personnel.

The diverse capabilities and geographical distribution of the eight laboratories reflect the broad mission and vision of this enterprise. On any given day, researchers at the OCONUS labs may be working with host national government collaborators to assess the threat of emerging infectious diseases. CONUS laboratory researchers may be evaluating methods to mitigate the effects of stressful physiological or psychological environments on human health and performance. Other investigators may be conducting human or animal trials for experimental vaccines, molecular determinants of wound healing, or regenerative medicine procedures. The work is operationally focused and highly regarded throughout the US and international scientific community.

Navy Medicine R&D is actively engaged in global health security efforts including a focus on mitigating the spread of antimicrobial resistance and emerging and re-emerging infectious diseases. Our labs work with partners around the world to enhance detection of emerging disease threats and bio-surveillance capabilities, to improve reporting systems and to build host-country response capacity.

The Navy Malaria Program, headquartered at the NMRC, collaborates with the Walter Reed Army Institute of Research (WRAIR), the DoD OCONUS medical research laboratories, as well as government, academia, private foundations and biotechnology partners to develop a malaria vaccine to prevent malaria morbidity and mortality in military personnel and in vulnerable populations worldwide. NMRC is collaborating with a biotechnology partner and the WRAIR to

design and conduct FDA-regulated clinical trials of a highly promising malaria vaccine that consists of a weakened form of the *Plasmodium falciparum* malaria parasite. This vaccine is easily administered, well-tolerated, and shown to provide high protective efficacy against infection with the parent malaria strain from which the vaccine was derived. The vaccine also protected against infection with a genetically unrelated malaria strain. This year the NMRC will conduct a follow-on clinical trial with this vaccine to evaluate an improved dosing regimen designed to induce the high levels of long-lasting, broad protection that are required for a malaria vaccine to protect deployed military personnel.

The NMRC Malaria Department also maintains a state-of-the-art discovery research program focused on identifying unique proteins on the malaria parasite that can be used to develop next generation malaria vaccines. The Malaria Department's concept development program uses animal models and transgenic malaria parasites to evaluate new malaria vaccine candidates and improved vaccine formulations before moving them to human clinical trials. They recently completed the initial phase of a Bill and Melinda Gates Foundation-supported clinical trial designed to determine the specific human immune responses involved in generating protection against malaria infection. Analysis of the data generated by this clinical trial is due in the coming year and will help guide the development of more efficacious malaria vaccines.

Collaborative efforts are important to sustaining our research efforts. During FY2015, our labs executed 95 Cooperative Research and Development Agreements (CRADAs) and had a total of 215 active CRADAs delivering over \$15 million in research funding. In addition, we have 91 active formal agreements with other governmental agencies.

Navy Medicine also has active Clinical Investigations Programs (CIPs) in place at our teaching MTFs to support our post-graduate health care training programs. These investigations,

in addition to satisfying program accreditation 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 care beneficiaries. In FY2015, our programs received an additional \$4.72 million in external grants for clinical research, an increase of 18 percent over the prior year. Navy MTFs conducted a total of 510 clinical research projects resulting in 373 publications in high-impact, peer-reviewed medical and scientific journals and 907 presentations at both national and international scientific meetings.

Our Way Forward

Our Sailors and Marines know that military service can be professionally rewarding, physically demanding, and potentially dangerous. They and their families expect us to protect their health, prevent injury and disease as best we can, and heal them when they're wounded or injured. Equally important, they want that same support for their families by having access to high quality health care when they are deployed and at home. In addition, our retirees and their families, through service and sacrifice, have earned a health care benefit that is both comprehensive and affordable. A strong and vibrant direct care system allows us to do those things while providing that exceptional clinical experience for our staff, from sickbay to medical center, augmented by vibrant R&D and top quality education and training so that we can ensure we will have done all we can to save lives on the battlefield and return home safely America's sons and daughters.

Moving forward, all of us recognize the formidable work ahead during these transformation times. We must sustain the gains we made over the last decade and a half in delivering unmatched combat casualty care, and redouble our efforts to provide high quality, accessible and

convenient care to our patients. I believe that the special fidelity we share with our patients makes us well positioned to meet these challenges.

Vice Admiral C. Forrest Faison, III
Surgeon General
Chief, Bureau of Medicine and Surgery

A native of Norfolk, Virginia, Vice Adm. Forrest Faison received his bachelor's degree from Wake Forest University and his medical degree from the Uniformed Services University of the Health Sciences. He completed post-graduate training in general pediatrics at Naval Hospital San Diego and fellowship training in neurodevelopmental pediatrics at the University of Washington.



From 2013 to 2015, Faison served as the deputy surgeon general of the Navy and deputy chief, Bureau of Medicine and Surgery. Prior to reporting to this assignment, he served as commander, Navy Medicine West and Naval Medical Center (NMC) San Diego where he was responsible for medical care and support to over 850,000 eligible beneficiaries by a staff of 16,000 at 10 hospitals and over 30 clinics from the West Coast to the Indian Ocean. He coordinated the Navy Medicine support response to Operation Tomodachi, and was awarded the California Medical Community's Lighthouse Award for visionary leadership and inspiring health innovation, a first for the Department of Defense.

Additionally, he served as deputy chief, Bureau of Medicine and Surgery, for Current and Future Healthcare Operations; commanding officer Naval Hospital Camp Pendleton; commanding officer, U.S. Expeditionary Medical Facility; and U.S. Medical Task Force, Kuwait. In that role, Faison led a tri-service task force of subordinate commands and was responsible for all healthcare operations in Kuwait, Qatar and Southern Iraq, including all medical logistics support throughout U.S. Central Command.

Faison's other assignments included Deputy Commander, Naval Medical Center Portsmouth, Portsmouth, Virginia.; Group Surgeon, 3d Force Service Support Group, Fleet Marine Forces, Pacific; director of Department of Defense (DOD) Telemedicine, Washington D.C.; chief information officer, Navy Medicine; U.S. Naval Hospital, Yokosuka, Japan; Naval Hospital Lemoore; USS Texas (CGN 39); and Amphibious Group 3.

Faison assumed duty as the 38th Surgeon General of the Navy Dec. 15, 2015.

Faison is board certified in pediatrics and is an associate clinical professor of pediatrics at the Uniformed Services University of the Health Sciences. He has several publications on neurodevelopmental outcomes of premature infants as well as other publications and book chapters on the topics of the future of Wounded Warrior care

and use of telemedicine and health informatics in healthcare. He is a senior member of the American College of Physician Executives. His personal awards include the Navy Distinguished Service Medal (two awards), Legion of Merit (five awards); Meritorious Service Medal (3 awards); Navy/Marine Corps Commendation Medal, and Navy/Marine Corps Achievement Medal and numerous unit and campaign awards.

Updated: 16 December 2015

Mr. FRELINGHUYSEN. We thank you for your testimony.
General Ediger.

SUMMARY STATEMENT OF GENERAL EDIGER

General EDIGER. Thank you, sir. Chairman Frelinghuysen, Ranking Member Visclosky, and distinguished members of the subcommittee, thank you for this opportunity to discuss Air Force medicine and our role in the Military Health System. We fully support the committee's work to ensure our Military Health System provides those we serve with the best possible care in all environments. We have asked our medical Airmen to stretch their already broad range of capabilities to support the Air Force and the joint team across the full range of military operations.

Their ingenuity and accomplishments drive our continuous efforts to identify gaps and progressively enhance our programs, operational procedures, and overall readiness. Since the early 1990s, critical care aeromedical transport teams have evolved and become the international benchmark for safe ICU-level patient movement. We adapted this capability to create the Tactical Critical Care Evacuation Team to meet combatant command requirements for intra-theater tactical critical care transport. We are now assessing means of enhancing this capability further to include some aspects of trauma stabilization during transport.

The Air Force deployable hospital is scalable to operational and medical scenarios. We call it the Expeditionary Medical Support Health Response Team. This capability provides emergency care within 1 hour of arrival, and surgery with critical care within 6 hours of arrival. Today, we have 683 medical Airmen deployed around the world providing medical support to contingency operations, including the trauma team at Craig Joint Theater Hospital in Bagram, Afghanistan, mobile surgical teams at various sites, and aeromedical evacuation teams with critical care capability at a variety of sites.

Our success in support of the deployed operations is inextricably linked to the care we provide in our hospitals, our clinics, and our many partner institutions, and to ongoing research to advance the technology and treatment capabilities of our deployable teams. Our research programs pursue new knowledge in operational health issues, in trauma care, and in transport environments focused on new treatment guidelines and new technology to improve outcomes. Such requirements led to the current work to develop the multi-channel negative pressure wound device, now being tested. And this device will improve wound care while reducing the logistics footprint and power utilization during transport.

Another operationally driven requirement led to the trauma-specific vascular shunt, developed to increase survival, limb salvage, function, and quality of life for those with major extremity wounds. Air Force aerospace medicine researchers with the 711th Human Performance Wing at Wright-Patterson Air Force Base in Ohio are developing tools to enhance human performance in safety and employment of new generation combat systems in a broad range of current missions. Strong health systems must continuously improve. Changes to the Air Force Performance Management Process made in coordination with the Military Health System imple-

mented in 2015 are producing advancements in safety, quality, and timeliness of care. Recent evidence includes the Joint Commission recognition of our hospital at Joint Base Elmendorf-Richardson for outstanding performance on key quality measures; the Kessler Medical Center's top 10 percent ranking among U.S. hospitals participating in Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) measures of patient perspectives; and favorable system-wide performance against national benchmarks and perinatal outcomes, diabetes management, and well-child care.

We know our performance as a health system is integral to our readiness, and we remain committed to continual improvement. To ensure the readiness of our medical force, we have evolved to an open and integrated model of clinical practice in which Air Force surgeons and critical care clinicians devote a portion of their practice time to provision of care and partner institutions, such as Veterans Administration (VA) Medical Centers and level one trauma centers.

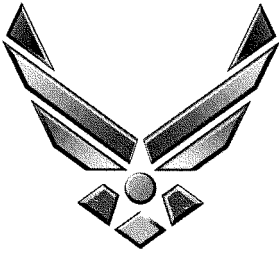
However, the bedrock of our readiness is the military hospital. The broad scope of care we provide in our hospitals to retired military members and their families and veterans is key to our readiness. The Air Force has 48 sharing agreements with the Veterans Administration, providing the complex cases needed to maintain clinical currency of deployable teams while enhancing access to care for veterans with a savings to the government. VA referrals to Air Force hospitals grew steadily until we saw a decline in 2015, due to a particular aspect of the Veterans Choice Act. We are concerned about this and working with our VA colleagues and the Department of Defense to map a process to reverse this trend to enable our continued growth in our care to veterans. We would greatly appreciate the support of the committee on this important endeavor.

A final point pertains to primary care support for active duty families. Experience has shown that primary medical support to active duty families from our military treatment facilities enhances commanders' efforts to support families under stress, and strengthens their resilience. We are strongly committed to the health and resilience of active duty families.

I thank the committee for its resolute support and dedication to the Airmen—welfare of the Airmen, Soldiers, Sailors, Marines, their families, and veterans whom we are honored to serve. Thank you.

[The written statement of General Ediger follows:]

United States Air Force



Presentation

Before the House Appropriations
Subcommittee on Defense

Defense Health Programs

Witness Statement of
Lieutenant General (Dr.) Mark Ediger
Surgeon General of the Air Force

March 22, 2016

March 22, 2016



BIOGRAPHY

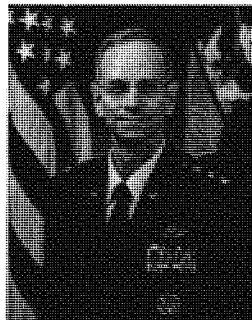


UNITED STATES AIR FORCE

LIEUTENANT GENERAL MARK A. EDIGER

Lt. Gen. (Dr.) Mark A. Ediger is the Surgeon General of the Air Force, Headquarters U.S. Air Force, Washington, D.C. General Ediger 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 Ediger 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 \$5.9 billion, 44,000-person integrated health care delivery system serving 2.6 million beneficiaries at 75 military treatment facilities worldwide.

Prior to his current assignment, General Ediger served as Deputy Surgeon General, Headquarters U.S. Air Force, Washington, D.C.



General Ediger is from Springfield, Missouri. He entered the Air Force in 1985 and has served as the Aerospace Medicine Consultant to the Air Force Surgeon General, commanded two medical groups and served as command surgeon for three major commands. He deployed in support of operations Iraqi Freedom, Enduring Freedom and Southern Watch.

EDUCATION

- 1977 Bachelor's degree in chemistry, University of Missouri, Kansas City
- 1978 Doctor of Medicine degree, University of Missouri, Kansas City
- 1981 Residency in family practice, Wake Forest University, Winston-Salem, N.C.
- 1991 Master of Public Health degree, University of Texas School of Public Health, San Antonio
- 1992 Residency in aerospace medicine, USAF School of Aerospace Medicine, Brooks AFB, Texas

ASSIGNMENTS

- 1. June 1986 - August 1988, Chief, Family Practice, Air Transportable Hospital Commander, 1st Medical Group, Langley AFB, Va.
- 2. August 1988 - July 1990, Flight Surgeon and Chief, Flight Medicine, 94th Fighter Squadron, Langley AFB, Va.
- 3. July 1990 - July 1992, Resident in Aerospace Medicine, USAF School of Aerospace Medicine, Brooks AFB, Texas
- 4. July 1992 - July 1994, Chief, Aeromedical Services, 325th Medical Group, Tyndall AFB, Fla.
- 5. July 1994 - July 1996, Chief, Aerospace Medicine Branch, and Chief, Professional Services Division, Headquarters Air Education and Training Command, Randolph AFB, Texas
- 6. July 1996 - July 1998, Chief, Aerospace Medicine Division, Air Force Medical Operations Agency, Bolling AFB, D.C.
- 7. July 1998 - July 2000, Command Surgeon, Air Force Special Operations Command, Hurlburt Field, Fla.
- 8. July 2000 - June 2002, Commander, 16th Medical Group, Hurlburt Field, Fla.
- 9. June 2002 - July 2003, Commander, 363rd Expeditionary Medical Group, Southwest Asia
- 10. July 2003 - July 2007, Command Surgeon, Headquarters U.S. Air Forces in Europe, Ramstein Air Base, Germany
- 11. July 2007 - September 2008, Command Surgeon, Headquarters Air Education and Training Command, Randolph AFB, Texas
- 12. September 2008 - July 2012, Commander, Air Force Medical Operations Agency, Lackland AFB, Texas

Fiscal Year 2017 Defense Health Programs

March 22, 2016

13. July 2012 – June 2015, Deputy Surgeon General, Headquarters U.S. Air Force, Washington, D.C.
14. June 2015 – present, Surgeon General, Headquarters U.S. Air Force, Washington, D.C.

FLIGHT INFORMATION

Rating: Chief flight surgeon

Flight hours: More than 800 hours, including 90 combat support hours and 38 combat hours

Aircraft: C-130, MH-53, F-15, T-38 and KC-135

MAJOR AWARDS AND DECORATIONS

Air Force Distinguished Service Medal

Legion of Merit with two oak leaf clusters

Bronze Star Medal

Meritorious Service Medal with four oak leaf clusters

Aerial Achievement Medal

PROFESSIONAL CERTIFICATIONS

1982 American Board of Family Practice (most recent recertification in 2015)

1992 Aerospace Medicine, American Board of Preventive Medicine

EFFECTIVE DATES OF PROMOTION

Major April 28, 1986

Lieutenant Colonel April 28, 1992

Colonel April 28, 1998

Brigadier General April 14, 2008

Major General July 13, 2012

Lieutenant General June 5, 2015

(Current as of June 2015)

March 22, 2016

Chairman Frelinghuysen, Ranking Member Visclosky, and distinguished members of the Subcommittee, thank you for inviting me to testify before you today.

The United States Air Force, in concert with our sister Services, has answered our nation's call over the past decade and a half in executing demanding missions in defense of the nation. Readiness has been, and remains the key factor in all we do. We have asked our Airmen to stretch their already broad range of capabilities to accomplish their missions, and as always, they have exceeded our expectations. As such, we owe these incredible young men and women our very best efforts in capturing the hard earned lessons learned from their experiences; and putting those lessons to work. Their ingenuity and accomplishments drive our research in identifying gaps and improvements in our programs, operational procedures, and overall readiness. One such vital lesson we have gleaned is, as we prepare for future success, we must ensure the Air Force continues to field both Medically Ready Airmen and Ready Medical Airmen. I will focus my comments today on the Air Force Medical Service's (AFMS) work in researching operational requirements from the field, and advancements in how we medically treat and transport ill and injured service members. I will describe the tremendous benefit we have derived from sharing agreements between our military treatment facilities, and other federal and non-government agencies; allowing increased access to care for veterans and all the beneficiaries we have the honor of serving, while improving skill sets that may otherwise be degraded. The military medical research advances we have made over the past 15 years are saving the lives of our uniformed members, our veterans, and in some cases, have the potential to save countless civilian lives. Also, work such as casualty evacuation and enroute care, in which the Air Force is the natural lead, has provided great insight into how we evacuate the injured but also when it is the safest to transport over great distances. We are still learning, for instance,

how the transport environment affects specific types of injuries and the body's physiologic reaction to injury.

Our programs include enroute care research pertaining to aeromedical and critical care evacuation, expeditionary medical operations, and care for operational health conditions. Under the umbrella of "Optimal Time to Transport" and cabin altitude restriction, the AFMS is conducting research to diminish the impact of transport and to determine the optimal time to transport patients. The purpose of this program is to provide foundational knowledge on transport environments and investigate the impact of factors on injury and disease states to mitigate any harmful impacts. Another project in this program is studying outcomes of patients transported with or without cabin altitude restrictions. We need evidence to validate what conditions benefit by restricting the cabin altitude during transport. This research is important to ensure the best possible clinical outcomes, as well as the best possible mission execution. As the world leader in this area, the Air Force is well positioned to set the standards for critical patient movement.

In the early 1990s, Critical Care Air Transport Teams (CCATTs), were developed and have become the international benchmark for safe Intensive Care Unit (ICU)-level patient movement. We applied the effectiveness of CCATT to create the Tactical Critical Care Evacuation Team (TCCET). This capability consists of teams of medical personnel equipped with specialized skills and tools to meet combatant command requirements for intra-theater enroute tactical critical care transport in rotary-wing or other tactical aircraft. Moving forward, our TCCET has advanced to a new TCCET-Enhanced, or TCCET-E, a new capability to evacuate patients while trauma stabilization procedures are conducted. This capability is employed in the EUCOM and USAFRICOM theaters today.

March 22, 2016

The Expeditionary Medical Support Health Response Teams (EMEDS-HRT), an evolution of our combat-proven and scalable Expeditionary Medical Support (EMEDS) teams, are postured across Air Force medical units and embedded in two Army hospitals. They provide emergency care within minutes of arrival, surgery and intensive critical care units are operational within six hours, and full ICU capability is available 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 the previous generation of EMEDS.

Readiness is always at the forefront of any discussion on how to prioritize research and development. Many of the needs in the area of medical R&D come directly from Medical Airmen in the field. For example, one need identified resulted in the development of the Multi-Channel Negative Pressure Wound Device. Though still in the developmental stage, this device will improve wound care while reducing the logistics foot print and power utilization during transport. Another example is the advances our medical researchers have made in the use of Extra Corporeal Life Support equipment and training. Commonly used in civilian hospital settings and referred to as Extracorporeal Membrane Oxygenation, its use can be lifesaving, working as a substitute set of lungs, processing oxygen and releasing carbon dioxide for the body, when the patient has suffered devastating lung injury or even assisting the body in oxygenation during procedures such as heart bypass surgery. This procedure is challenging in any hospital setting. The challenge multiplies when the patient is an injured service member minutes away from the battlefield, in an air medevac taxiing down an expeditionary runway.

Medical research in support of Expeditionary Medicine takes the common medical procedures, especially those procedures that our warfighters have identified as gaps, and applies

March 22, 2016

our best research and development talent to solving those problems; often resulting in a solution that meets the needs of both the military and civilian medical community. One prominent example of this is the Trauma Specific Vascular Shunt. AFMS researchers developed this shunt as part of a program aimed at developing solutions to capability gaps to enhance surgical and pharmacological interventions required to achieve improvements in mortality, limb salvage, functionality, and quality of life for traumatically injured patients.

The research that helps us to provide the best possible critical care is, and should remain, a top priority; however, other operationally relevant research that fills the gaps and answers requirements from the field are important and valuable as well.

As an illustration, Air Force researchers and scientists with the 711th Human Performance Wing at Wright-Patterson Air Force Base, Ohio have made great strides in the areas of Operationally Based Vision Assessment (OBVA), Aircrew-Mounted Physiological Sensor Suite (AMPSS) equipment, Pilot Physiologic and Cognitive Performance, and Aeromedical Operational Psychology. Examples of OBVA use in the field can be found in the KC-46 remote vision system (RVS) boom operator (Airmen who physically control the aerial refueling mechanism) visual performance research. This research examines medical and selection standards needed for KC-46 RVS stereoscopic display use. The OBVA program also researches the F-35 Helmet-Mounted Display (HMD) vision testing, which is vital for setting the medical and vision standards for F-35 HMD, and identifies potential improvements to Air Force vision standards and screening for optimized pilot performance. The operational and medical readiness requirement of fighter pilots prompted our research into the AMPSS equipment. Its origins are in the lessons learned from F-22 testing and investigations. The 711th HPW had a large role in the early F-22 investigations, which prompted creation of a laboratory to evaluate performance

March 22, 2016

of aircraft oxygen generation systems and development of mask sensors, now known as the Aircrew-Mounted Physiologic Sensor Suite. Researchers developed these sensors to monitor the cardiorespiratory response of high-performance pilots. AMPSS is also a component of a larger fighter-pilot centric effort, called Pilot Physiologic and Cognitive Performance (P2CP). The sensors associated with P2CP monitor the performance of fighter pilots can also be expanded to Remotely Piloted Aircraft/Distributed Common Ground System (RPA/DCGS) operators as well.

We are also conducting other psychological health surveillance research to assist in monitoring the readiness of remote warriors (RPA, DCGS, and Intelligence). Our intent is to improve aeromedical psychology procedures for early identification and outreach of Airmen flying with untreated distress and negative changes in their psychological (emotional, behavioral, and social) functioning. These procedures will enable our military mental health professionals to examine and predict psychological reactions to key sources of occupational stress for the early identification of aircrew at risk for medically significant health problems (e.g., psychological distress, post-traumatic stress disorder, suicidal ideation, alcohol abuse, etc.). Our research results have been utilized to modernize training and procedures for medical and mental health providers tasked with the outreach to aircrew spread across 40 Air Force aircrew squadrons within the continental United States. This research also transitions easily to our Air Force ground operators.

Collaboration with the Department of Veterans Affairs (VA) through sharing agreements enhances our providers' clinical currency, saves federal dollars, and maintains readiness. Because of our efforts to encourage participation in the DoD-VA Health Care Resource Sharing Program, we now have 49 Air Force-VA sharing agreements with 9 Master Sharing Agreements covering all available clinical services at nine MTFs. Our relationship with the Department of

March 22, 2016

Veterans Affairs (VA) extends to clinical currency opportunities for both entities. By enhancing clinical skills through partnerships with busy, high acuity civilian medical centers regular sustainment training for all team personnel, and developing new medical capabilities, we are committed to being better prepared when the next contingency presents itself.

The growth of VA patients in our facilities support veterans in need of services, but also greatly enhances our readiness by providing the acuity and volume of patient care that cannot be found in the active duty and active duty family member population. Growth in our outpatient care to veterans stagnated in Fiscal Year 2015 over Fiscal Year 2014 due to issues in the 3rd quarter with the implementation of the Veterans Access, Choice and Accountability Act of 2014. Growth in inpatient care for veterans also slowed in Fiscal Year 2015.

In contrast to decreasing inpatient and outpatient growth, one of our newer sharing sites, the 88th Medical Group at Wright-Patterson AFB, Ohio saw a 46% increase in VA inpatient dispositions from Fiscal Year 2012 (2,949) to Fiscal Year 2015 (4,300). This is significant in that it is instrumental in providing the complex cases needed to maintain clinical currency of deployable teams while enhancing access to care for veterans. WPMC has increased their VA outpatient workload from Fiscal Year 2013 (270) to Fiscal Year 2015 (2,827) by 947% and inpatient dispositions by 2,763% for the same time period (Fiscal Year 2013 - 2018; Fiscal Year 2015 - 229). Likewise, VA/DoD sharing agreements save the VA a minimum of 10% over the cost of care in the community. At our largest sharing site, David Grant Medical Center, Travis Air Force Base, California, that savings is bumped up to 25% as that is the discount rate agreed upon at that site. Other sites with increased discount rate include Keesler Medical Center, Mississippi; Eglin Air Force Base, Florida; and Wright-Patterson Medical Center (WPMC),

March 22, 2016

Ohio. All of these sites are among the top six Air Force VA/DoD sharing sites that see the majority of VA patients across the AFMS.

Much of the success at WPMC in providing specialty care to veterans can be attributed to the WPMC and Veterans Integrated Service Network (VISN) 10 leadership. To facilitate discussions and move the sharing initiative forward, the team formed the Buckeye Federal Healthcare Consortium (BFHC) in 2015. Membership consists of representatives from the VA Medical Centers in the VISN, WPMC, and VISN 10. The BFHC construct is based on the DoD's Quadruple Aim of Readiness, Better Care, Better Health, and Best Value and supports maintenance and expansion of clinical currency; provides for convenient, efficient, quality care; increases access to care for veterans; and seeks to reduce cost by eliminating duplication of services amongst federal agencies. Since the formation of the BFHC, outpatient encounters have increased more than 250% and Relative Value Units have grown more than 500%. Inpatient admissions have grown more than 400% and relative weighted product over 5000%.

Another program important to the AFMS and entire Military Health System is graduate medical education (GME). The Air Force has 85 GME programs, in 31 specialties to develop the knowledge, skills and attitudes of highly qualified medical personnel to support the missions of the AFMS. These training programs help ensure the competency and currency of medical personnel by providing health care to deployed military personnel and other beneficiaries.

In contrast, the civilian sector does not have the capacity to provide the residency and fellowship training needed to maintain our medical specialty requirements. As a result, approximately 15% of the overall physicians in the workforce today graduated from military GME platforms. Participation in GME, to include leadership, research, teaching, and mentorship, is vital to maintaining the competency and currency of all medical corps in the

March 22, 2016

AFMS. Moreover, advanced training is essential to the recruitment and retention of medical specialists.

The overall volume of active duty and civilian GME training, coupled with the medical school pipeline, are necessary to maintain the current AFMS delivery of health readiness to DoD personnel and their families, health service support to combatant commanders and high-reliability care to all beneficiaries.

Thank you for this opportunity to discuss how the AFMS is taking the hard-learned lessons of the past 15 years of real-world medical support to the forces, and transforming those lessons into requirements-driven research and resource sharing that maximizes benefit to all we serve. Our medical forces must stay ready through their roles in patient-centered, full-tempo health care services in our medical treatment facilities that translate to deployed environments; that ensure competence, currency, and satisfaction of practice and foster innovation. 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 wish to thank the committee for its steadfast support and dedication to the welfare of the Airmen, Soldiers, Sailors, Marines, their families and veterans.

Mr. FRELINGHUYSEN. On behalf of the committee, we thank you all, and the men and women who support you do remarkable work. And before I yield to Judge Carter, may I say, of course, we note today a horrible tragedy in Brussels, Belgium. And I think most members know we have, what, 700 or 800 military installations around the world, over 225,000 people doing, as we often say, the work of freedom. And the Belgium strike, of course, is a soft target. But we, as a committee, remain committed to obviously protecting our fighting men and women wherever they are. And it is good to know that whatever the circumstance is, and we would never wish this upon any soldier or airman or seaman, that you are there for them if similar circumstances should ever strike them. The remarkable work of that trauma center at Bagram, the things that—the airlift that gets—people used to talk about the golden hour, but in reality, the improvements that have been made to enable people to recover, get back home, and get the best medical treatment. We pay tribute to you. But we are obviously mindful of what happens to civilians in a world where people are still committed to doing unspeakable acts. But we are proud of what you do.

Judge Carter, representing the great State of Texas. And I note that the Admiral has some Texas roots. I hope you looked at her biography.

MAINTAINING MEDICAL PERSONNEL

Mr. CARTER. Texas roots are good.

Thank you, Mr. Chairman. And thank all of you for what you do to extend the lives and glorify the lives of our warriors. It is amazing what military medical science has been able to accomplish, and what we have learned, and what you have done so that we could have our loved ones come back. No war has ever met these kind of goals. And congratulations.

General West, we had the chance to visit in my office. And I have a question for you. As we are all aware, the Army is in the middle of reducing its end strength by 40,000 troops. Of concern to this hearing is the Army's ability to keep and retain practical nursing specialists and combat medics. And argument could be made that the cessation of combat operations in Iraq and the drawing down of combat operations in Afghanistan, that there could or would be a corresponding drop in the need for medical professionals. The Army has spent a considerable amount of time and money training and certifying each of these soldiers, increasing the regenerative problems. And I am certain that these specialties will face an inordinate amount of scrutiny during the retention boards given the current environment. What are we doing to ensure that we maintain a robust level of medical professionals and soldiers in the Army given the forced drawdown? Should the Army institute a program to help transition them to medical centers near Army installations so they can continue to treat soldiers?

General WEST. Sir, thank you for that question. And I appreciate your concerns about Army medicine and military medicine in general to ensure that we have the capabilities that are needed to support our servicemembers all around the globe where they are needed for operations. And I am concerned as well, sir, to ensure that we have got that capability available. One of the things that we are

doing, and, first of all, I must also say our senior Army leadership and civilian leadership are very supportive and appreciative and understand the combat multiplier that our medical specialties are.

So when we are drawing down the force, they are very keen to not cut too deeply in our medical capabilities. So we have got 100 percent support from our senior leadership on that avenue. As far as ensuring that we have got the skills and the capabilities, you know, resident in our force, we are doing, it is just as you said, sir, having affiliations with our civilian counterparts and having, you know, not as much as I would like to now, but we are looking at expanding that similar to what we have at Fort Drum where we have our providers that actually provide care and take care of our beneficiaries in the civilian hospitals locally.

So we are trying to make sure that we leverage that capability as well working with our VAs and other institutions. We are also making sure that we have the skills not only of our providers, but of teams: the nurse anesthetist, the radiology techs, all of those who are part of the team ensuring that they have opportunities to ensure that their skills are—skills are kept up-to-date. So I am very concerned as well, sir, and we are working with, and working our sister services as well to ensure that we have got ready capabilities for the future.

Mr. CARTER. Well, I asked this question because, as I think I told you when we talked, absolute first question I ever got asked as a Congressman was about nursing and nursing shortage at all levels in the United States. And that was 14 years ago. We—in my district, we have created three nursing schools in my district. Others have created, I have helped. But I hate to take—and because of drawdown, lose those trained professionals that are on the ground and saving lives because we have to—by attrition, we have to reduce numbers. That is the reason for my question, and I thank you for your answer.

General WEST. Yes, sir.

Mr. CARTER. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Mr. Ruppertsberger.

EXTREMITY INJURIES

Mr. RUPPERSBERGER. Yes. Again, thank you for what you do. When we put our men and women in harm's way, we need to take care of them and help them and do the best we can when they incur injuries and the after-effect of those injuries.

General West, the question is primarily directed towards you. And it is about extremity injury, represents a major threat to the fighting force, not just in terms of number of injuries incurred and their effect on our soldiers, but also in terms of the cost of acute medical and surgical care, and cost of long-term disability payments. There is also substantial evidence that long-term outcomes from these injuries are poor in terms of patient satisfaction, physical function, and quality of life. Congress has provided over \$300 million since 2009 through the peer-reviewed Orthopedic Research Program to improve treatments for severe limb injuries, both in military and civilian populations.

Now, to organize these studies and ensure the quality of the research, the DoD awarded grants in 2009 to establish a consortium

of trauma centers organized through a coordinating center. Through a competitive process, this led to the creation of the Major Extremity Trauma Research Consortium, METRC. And this resource has enabled the enrollment of over 5,000 patients and 18 studies funded by DoD, NIH, and others. Thanks to the judicious use of taxpayer resources, the consortium funding has lasted longer than anticipated, but it is expiring. My question, what plans does the DoD have to continue to provide sufficient funding for our consortium and coordinating center to support clinical research in the area of severe limb injury? And, two, can you provide specific examples of advances made as a result of this investment and research? Did you get all that?

General WEST. Yes, sir. I did. And thank you so much for that question. And I would like to just start with a story if I might, sir, on the outcome and the benefits of that research. I am sure, and I would hope the committee is familiar with Sergeant Brendan Marrocco, who was our sergeant who had quad—you know, quadriplegic, basically, amputations, and had bilateral upper extremity transplant based upon the research and based upon the support in this area.

SERGEANT BRENDAN MARROCCO

Mr. FRELINGHUYSEN. He came to one of our hearings a couple years ago. Remarkable. Excuse me for interrupting.

General WEST. Yes, sir. No. And, so, we actually have some follow-up. Our team talked with him actually yesterday and his providers that are taking care of him. And he was very excited to, and was really okay with us telling what is happening with him right now. And he is currently living in Dallas, Texas, the great State of Texas there, sir. Moved there from New York, and is no longer requiring anyone to be a caregiver for him. So here is someone who had four amputations, bilateral limb transplant. The only downside, as he mentioned, and it wasn't even a downside, is now he used to be right-handed, now he is writing with his left hand because he has got more tactile sensation in his left upper extremity. So going from a person that had required a caregiver to now being able to take care of himself to drive, to actually have a tactile sensation of writing, accomplishing all the activities of daily living on his own. And so, again, he lives in Texas with a fellow amputee that he met at Walter Reed.

FUNDING FOR ORTHOPEDIC INJURY RESEARCH

Mr. RUPPERSBERGER. So I assume, based—and that is a very good success story, and there are other stories like that, do you have plans to provide sufficient funding to continue this consortium to support this clinical research?

General WEST. Yes, sir, we do. And I believe the orthopedic injuries that are sustained, of course, are complex, and there is the peer review program is going to continue the research in those areas to ensure that that continues.

SPINAL CORD INJURY RESEARCH

Mr. RUPPERSBERGER. The other issue is spinal cord, something very severe. I personally have worked with Maryland Shock Trauma and Kennedy Krieger. Kennedy Krieger probably is one of the most advanced, right next to Hopkins, one of the most advanced in research of spinal cord. And they feel that if they receive more funding, continued funding, they will be able to hopefully get people out of wheelchairs, especially our men and women in the military who are paralyzed as a result of their injuries, but it also helps our public too.

And I think that we need to move forward in this regard. I know Jim Langevin, who is a quadriplegic member of Congress, a very—a person who I have a lot of respect for. And I think now we are going hopefully to be able to make that a higher priority in the research because we think that maybe down the road, we might be able to get results in this area. Do you have any feelings on ramping up what we need in that research as far as spinal cord injury?

General WEST. Absolutely. And as you know, sir, the Spinal Cord Injury Research Program that was established back in fiscal year 2009 has been, you know, very successful in moving some of these projects forward. So the fiscal year 2016 appropriations was \$30 million for this program to support both innovative and high-impact spinal cord injury research, and so it is focusing the funding—the projects have had the potential of really increasing the quality of life, and then, just as you mentioned, sir, the Kennedy Krieger Institute, you know, making the advancements and supporting research in those areas. So I believe we will continue to—

Mr. RUPPERSBERGER. Well, we look forward to working with you on that. Thank you.

General WEST. Absolutely, sir. Thank you.

Mr. FRELINGHUYSEN. Mr. Diaz-Balart.

MENTAL HEALTH SERVICES

Mr. DIAZ-BALART. Mr. Chairman, thank you very much. What a privilege it is to have you here. And I want to join the words of Judge Carter when he talked about it is amazing, frankly, what you have all been able to do, right? And the advances. But I want to kind of change a little bit to talk a little bit about mental health. And, you know, we know that obviously folks in and—not only, by the way, the men and women in the military, but also their family members. So it really is kind of an open-ended question, which is: Do you feel that we are making as much progress there as we are in other areas? Is there—do folks have the ability to coordinate care? To have long-term care? And also, if you also want to address a little bit about family members as well. So kind of an open-ended question. So I am not quite sure who wants to kind of deal with it.

Admiral FAISON. Sir, I will start. We have invested heavily in the Department of the Navy in mental health services, both for our active duty as well as our family members. And the service chiefs have engaged aggressively to reduce stigma to allow our active duty servicemembers to seek help. And, actually, we are seeing

that. So more and more active-duty folks are asking for help. Thankfully, the incidence of PTS is going down as combat operations have ceased. But the baseline mental health needs of our servicemembers have continued. And we are meeting those needs. The challenge that has been, as we take care of more and more active duty, more and more of our family members are referred to the TRICARE network; and it is wonderful network of providers. Unfortunately, less than 2 percent of them have ever served in the military. So if you are a spouse and you show up, talk about a MEF or a MEDCAP or a MEU, it is difficult to establish a therapy relationship.

What we have done in our fleet concentration centers is to develop programs that we call Military 101, where we invite civilian providers to the hospitals on our bases and educate them about the military lifestyle, educate them about some of stressors that our military families are undergoing right now. So when they need professional help, those folks are at least sensitized to those issues. At the same time, the services that have significantly grown are support services through base and family support services, mental morale, MWR services, things like that, so that we also introduce them to the other service providers that are available. So we try and provide a network of services, a safety net, if you will.

Mr. DIAZ-BALART. And relatively holistic is—and I believe is what you are saying, right?

Admiral FAISON. Yes, sir.

Mr. DIAZ-BALART. Which is essential?

Admiral FAISON. Absolutely. Absolutely.

General EDIGER. Sir, I would add to what Admiral Faison said. I certainly agree with what he just described. And in addition, we recognize that we have a responsibility to work closely with the Veterans Administration for the transition of care beyond the period of service. And, so, the DoD and VA have had an interagency care coordination committee and—working for approximately 2 to 3 years. And they have made some excellent progress in terms of coordinating the case management for particular servicemembers with mental health conditions as they transition from DoD care into VA care.

General WEST. Sir, one of the things I would like to add also, you mentioned family member care. We also concentrated on especially our children in some of our Department of Defense schools, and even one school that is in Hawaii that is not a DoD school, but it has a high concentration of our military children. We have embedded behavioral health at the schools. This has really been greatly appreciated by the family members so they don't have to bring their children out of the schools to the appointments and back. And then it also, you know, reduces the stigma.

We also have embedded behavioral health with our units. We have over 55 teams of over 100 units with our end state of having 65 of these embedded teams by end of fiscal year 2017. And this actually, again, if they are a part of your unit, you see them on a daily basis, it makes it more accessible.

We also, similar that we treat Buddy Aid for trauma, we are teaching our—down at the lowest level Buddy Aid for recognizing any behavioral health changes in their colleagues. Because that is

where it starts, when your friend to your left and right can see that there is something not quite right, they can actually intervene and get you to care as well. Again, reducing stigma and ensuring that we intervene earlier in the course of any concerns that they may be having.

Admiral BONO. If I could just take a moment to address some of the long-term and residential care, one of the things that we are doing at the DHA is we introduced ULB in November of 2015 to allow us access to more residential treatment centers, so that we could continue to support those that needed a longer-term type of care for their behavioral health issues.

Mr. FRELINGHUYSEN. Could you define the acronym?

Admiral BONO. Oh, the—

Mr. FRELINGHUYSEN. ULB?

Admiral BONO. The Unified Legislative Budgeting for—in November to look for mental health parity. We specifically targeted residential treatment centers so that we could gain access to that.

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

Mr. FRELINGHUYSEN. Thank you.

Mr. Ryan.

INTEGRATIVE HEALTH AND NUTRITION

Mr. RYAN. Thank you, Mr. Chairman, I appreciate—I thought I was going to get trumped here when minority—I was getting scared there for a while.

Thank you so much. Appreciate you all coming in.

I want to talk about a couple issues. One is more integrative health, what is quote/unquote, “alternative,” which really isn’t alternative anymore. And I know many of you are working on this in a big way. And I would like to start—I want to talk about food a little bit, and then I want to talk about opiates.

So there was some recent CDC guidelines that came out with regard to opioids providing pretty good guidance for us. And I just want to quote here where it states, “Experts agreed that opioids should not be considered first line or routine therapy for chronic pain, pain continuing or expected to continue for 3 months or past the time of normal tissue healing outside of cancer palliative care,” end of life care, that kind of thing. “Experts noted that clinicians should use additional caution in increased monitoring to lessen the increased risk of opioid use disorder among patients with mental health conditions, including depression, anxiety disorders, and PTSD, as well as increased risk for drug overdose among patients with depression. Previous guidelines have noted that opioid therapy should not be initiated during acute psychiatric instability or uncontrolled suicide risk.”

And I know we continue to prescribe high levels of opioids within the military. From what I am reading, it is 15 percent of U.S. Military post deployment are using opioids as compared to four percent of the general public. And I know that obviously reflects some of what they are going through.

So, the point I want to bring up is that I also read last week a new study that came out from NIH which concluded that mindfulness meditation works on a difficult pain pathway in the brain than opioid pain relievers. And because opioid and non-opioid

mechanisms of pain relief interact synergistically, the results of this study suggest that combining mindfulness-based and pharmacological/nonpharmacological pain-relieving approaches that rely on opioids signaling may be particularly effective in treating pain.

So I would like to ask, and I will ask my other question too, and then you can feel free to answer both of them. What are you all doing to make sure that we continue to take this new knowledge that we have on how the brain works and how some of these older techniques are starting to really be effective in moving us away from more prescription drugs? And, obviously, the VA, and we are working on that as well. But tell us and share with us what you are doing and maybe what we can do to be a little more helpful to promote these kinds of quote/unquote “alternative” approaches that are showing us some positive results?

And then also on food, a lot of the depression and mental health issues we are finding out now also come from bad diets. Quite frankly, what you put in your body evidently affects how our minds function and all the rest. And, so, if you could just talk a little bit too about what we are doing as far as nutrition and diets within the military. Now, we look at high performing athletes, and everything I am reading from some of the most successful teams, athletes, Olympians, so on and so forth. It starts with the diet. And, obviously, we have elite performers in our military, and we want to make sure that we are approaching their training with the same exact vigilance as we see some of these other high-performing people doing. So with that, I will turn my microphone off and allow you to answer the questions. Thank you.

General WEST. Sir, thank you for those questions. First, I would like to give you a good news story regarding the opiate use and our active duty soldiers initiating chronic therapy. Back in 2006, it was about 6.03 usage. And now, in 2015, it has decreased to 2.98. So our teams have been getting after decreasing the use of opioids. In our pain management, we have eight interdisciplinary pain management centers, and four what we call the interdisciplinary pain management center lights that don't have all of the—what you said was alternative, but now getting more into the mainstream therapy that have multiple different, you know, physical therapy, yoga, acupuncturists, biofeedback, chiropractors.

So they have the whole gamut of using other methods of pain control. For mindfulness, we have, in our medical research and materiel command, they oversee—there are actually 14—currently have 14 research projects on mindfulness to help improve and useful that all 27 of our Army wellness centers utilize emWave biofeedback as part of a mindfulness technique.

And all of our behavioral health providers use mindfulness strategies within their inpatient behavioral health units, and also in their intensive outpatient programs, and other evidence-based forms of treatment efforts. And, so, we do see the value of that and are incorporating that in several of our interdisciplinary treatment centers as well as our behavioral health.

And very quickly on the food, I have to give a lot of credit to my predecessor, Lieutenant General Patty Horoho who really started the performance triad to get after what you mentioned, sir, the—you know, it is sleep, nutrition, activity, but the nutrition piece en-

sure that we have, you know, improved the nutrition of our soldiers and our servicemembers with healthy-based initiatives ensuring that there are healthy choices for our servicemembers, reconfiguring our dining facilities to ensure healthy choices are up front.

So, a whole host of things that have really helped, I think, that has been embraced by our Army. It is not just a medical program. It is in the medical lanes now. Our entire Army has embraced that because we see the need, just as you mentioned, the importance of adequate nutrition. Thank you.

Mr. FRELINGHUYSEN. If you could be a little—we want to make sure all members get some time. You can briefly respond to Mr. Ryan's comments, each of you, if you wish.

Admiral FAISON. Absolutely, sir. Thank you. We have leveraged heavily on our experience with wounded warriors and invested heavily in alternative therapies. We actually have courses we run for our providers in acupuncture. Just graduating a course of 92 recently. Our pain management strategy involves pain management teams at our major treatment facilities as well as the use of telemedicine consultation for providers around the world. Monitoring is done through Medical Home, which is our model of primary care now.

For food, we are a part of Navy's overall initiative to change its physical fitness program from compliance-based to more holistically focused on health; that includes a huge food component. We are looking at menus and diets on our ships and in our shore stations, again, to keep people healthy and on the job. Thank you.

General EDIGER. I will just add briefly that we also have seen a decrease in opioid prescriptions to Airmen, and we are monitoring that. I would also point out that 2 weeks ago the Centers for Disease Control released their recommendations in regards to use of opioids for chronic pain. And the recommendations in that were very consistent with the strategy that DoD has been using since 2010 with use of multidisciplinary teams the measures just described by my colleagues. Thank you, sir.

Mr. FRELINGHUYSEN. Mr. Graves.

WARRIOR TRANSITION UNITS

Mr. GRAVES. Thank you, Mr. Chairman. And thanks to each of you. Let me share my appreciation for what you do to provide health and medical attention all around the world in great longstanding tradition of our country and of the Army.

So thank you. I just have a general topic I want to get your thoughts on as it relates to the warrior transition units, knowing that General West, last year, Army made a decision to drop 14 of 25 units. And I am aware the decision was made after a number of our soldiers decreased—the number of services that are needed has decreased. And that is certainly something that we need to be grateful for, going from 7,000 previously, to maybe just under half of that currently.

Yet, it still seems the Army sees that this plays a significant role. And I suspect you will agree to that today as well, seeing how there is 11 units still remaining. But the decision was made to drop 14 of the units instead of maybe diminishing the size of the 25 units that are currently in place or were currently in place. Can

you just help us have an understanding of that the care still will be met where necessary, seeing how the 14 have been dropped, and previously, it was in a lot of different facilities, including Fort Gordon in Georgia, and how soldiers can still expect to have that same care that we all want to make sure they receive?

General WEST. Absolutely. Thank you for that question. Before we close down or decrease the resources at any of our, you know, facilities, and especially our warrior transition units, there is, you know, definite deliberative process of determining that the care and the resources needed are available, you know, in another mechanism. What we also did is make sure that we—as we downsized the population and, again, as more of an attrition from when the servicemembers who were going through the program were properly evaluated, treated, and then transitioned either back to the active service, back on active duty, or transitioned into the civilian sector, as the numbers went down, no new patients—or no new servicemembers were taken. And they were placed in areas where they could get the care that they needed.

And, so, we are very methodical. The commander of our warrior transition, you know, brigade, is watching that very closely. And we also make sure that there is an ability to expand back capability if we need it. So it is not being closed now. We work closely with the installations to ensure that that capacity still exists if we were, God forbid, to need to ramp that up again, and so each one of our individual soldiers are taken care of.

Mr. GRAVES. Okay. Thank you. Good. Good. And then I encourage you to keep that open platform because I suspect there—as you review, and I know you do that, and that is applauded that you do as well that changes are needed or continuity of care is a concern that you make the adjustments necessary and I know that you have the committee's support in doing such. Thank you.

Mr. FRELINGHUYSEN. Thank you, Mr. Graves.

Mrs. Lowey, ranking member of the full committee, welcome.

KIDNEY CANCER

Mrs. LOWEY. Thank you, Mr. Chairman, and thank you for your service to our country.

I am particularly interested in advances to diagnose, treat, and cure kidney cancer. The incidence of this cancer has increased over the past 15 years. And early detection just does not exist. So by the time someone is diagnosed with kidney cancer, it could be stage four cancer. I am very concerned about the rate of kidney cancer among veterans, particularly a potential link between Agent Orange and developing this debilitating disease.

General West, could you please update the committee on your medical research efforts for kidney cancer?

Would you rather get back to me?

General WEST. Yes, ma'am. If I could take that for the record, and I will get back to you on the specifics for that. I appreciate that.

Mrs. LOWEY. Thank you. And I would also like, as a follow-up on that, the incidence of kidney cancer among active duty and veteran populations and what more can be done to research this disease? Thank you.

[The information follows:]

The Congressionally Directed Medical Research Programs has invested a total of \$11.2 million in kidney cancer research from Fiscal Year 2006–2015. The Peer Reviewed Medical Research Program invested \$1.9 million in kidney cancer research in Fiscal Year 2006 and Fiscal Year 2009. Additionally, the Tuberous Sclerosis Complex Research Program funded \$494,392 in kidney cancer research. In Fiscal Year 2010, kidney cancer research was included as a topic area in the Peer Reviewed Cancer Research Program and has continued as a topic area under this program. The Peer Reviewed Cancer Research Program has invested \$7.4 million in kidney cancer research. In Fiscal Year 2015, the Peer Reviewed Cancer Research Program has recommended funding for two kidney cancer research awards totaling \$1.4 million. Current research under the Peer Reviewed Cancer Research Program covers the spectrum of research areas, and includes, but is not limited to: studies utilizing nanotechnology to target and kill renal cancer cells; development of a urine or serum test for kidney cancer; development of imaging tools to ascertain the aggressive cancers of the kidney; establishment of model systems of kidney cancer to better understand the disease and progression; identification of potential therapeutic targets and candidate agents; identification of mutations in kidney cancer cells from a Veteran population; etc.

There are no clear data published that show the incidence rates of kidney cancer among active duty and/or veteran population at this time. However, the Defense Health Agency in partnership with the US Army Medical Research and Materiel Command's Congressionally Directed Medical Research Programs (CDMRP) are planning to conduct a study for evaluating the incidence rates of the following cancers in active duty Service members: kidney cancer, breast cancer, bladder cancer, colorectal cancer, liver cancer, leukemia, Non-Hodgkin's lymphoma, lung cancer, melanoma and other skin cancers, mesothelioma, ovarian cancer, pancreatic cancer, prostate cancer and stomach cancer. CDMRP is also planning to work with the Department of Veterans Affairs to collect Veterans' kidney cancer incidence data for analysis.

The newest approaches that may be considered for kidney cancer research include local treatments such as ablation (radio frequencies or cryotherapies) to spare the kidney, targeted therapies, immunotherapy, and more personalized medicine to treat the individual's cancer characteristics.

Mrs. LOWEY. I don't think I am going to touch on medical—electronic health records, Mr. Chairman. We have been talking about that for a very long time.

ELECTRONIC HEALTH RECORDS

Mr. FRELINGHUYSEN. Well, I plan to focus on it. I mentioned it, Mr. Visclosky and I, I think every member of the committee has been totally dissatisfied. I think the DoD has done a lot more than the VA, but we will focus on that later. Your time.

Mrs. LOWEY. Well, it is really shocking, because I don't know how the private sector could focus. And it seems that the Defense Department is looking for a new—well, although you have a new system that is being worked on whereas veterans are using Vista and upgrading that. So I will leave that to you, Mr. Chairman. Thank you very much.

TOBACCO USE IN THE MILITARY

Smoking. DoD has acknowledged that tobacco use in the military directly impacts military readiness and costs the Department \$1.6 billion annually in healthcare costs, and lost productivity. According to Assistant Secretary for Health, Dr. Jonathan Woodson, over 170,000 personnel currently serving in the military will ultimately die from tobacco-caused death and disease. While the Department has made some progress in the past few years, it has yet to announce it will implement all of the changes called for in the 2009

Institute of Medicine report, Combating Tobacco Use and Military and Veteran Populations.

First, could you tell us what is the Department doing to transition to a tobacco-free military? What kind of resources would be necessary to dramatically reduce the prevalence of tobacco use in the military? What other Federal resources, including the Centers for Disease Control and Prevention, tips from former smokers campaign could be repurposed and used with military populations? And I am sure my colleague to my right would be delighted to give you more information on mindfulness for this purpose. Thank you.

General EDIGER. Thank you. I think there has been a concerted effort that continues today to reduce the use of tobacco. Certainly all of us on this panel, you will find no group more strongly committed to reducing the effect of tobacco on the health of those that serve and their families. It is the leading cause of preventable death in the United States, and clearly, not in the best interest of those we serve to use tobacco. The Department of Defense, there have been changes to the pricing for tobacco products, and our exchanges, there is no longer any kind of discount for tobacco products in comparison to prices in the local community.

In the Air Force, we issued and revised guidance last year that further restricted the use of tobacco on Air Force installations. And then on the medical side, we have really enhanced our efforts with increased emphasis on making the behavioral health therapies available to Airmen and their families to help discontinue use of tobacco, along with medication therapy, use of frequent queries on the issue of tobacco use during every primary care encounter. And we have been encouraged to see that since 2010, the rate of smoking among Airmen has been cut by 50 percent.

Now, we have not seen a comparable decrease in smokeless tobacco use among Airmen. So that is our focus right now is to reduce the frequency with which our Airmen are choosing to use smokeless tobacco. But we have made considerable progress in regards to reducing the smoking among active duty Airmen.

Mrs. LOWEY. I appreciate you included your focus on smokeless tobacco. This has been an issue of grave concern among many of us. And, unfortunately, we don't have aggressive enough legislation to even evaluate the impact of Tooty Fruity and bubble gum. They are selling this in tobacco stores. I have seen them in my district. I go in and tell them I want to close them up. But it hasn't done any good.

So, I really hope—the military has done such great work in a whole—many areas of research. And I do hope you can be aggressive in this area, because from what I have seen, and you have seen it as well, the transition to Tooty Fruity or those other flavors is not keeping them healthier. So I thank you, and I look forward to more information in how you are pursuing this.

Mr. RYAN. Will the gentlelady yield for 5 seconds?

Mrs. LOWEY. Always.

Mr. RYAN. There is a great mindfulness-based smoking cessation program that came out of Yale that is highly regarded, highly effective, and very cheap. And they have an application, an app on your phone that you can use. And it just walks you through over 15, 30, 45 days how to kind of wean yourself off of smoking. And I think

it would be worth, I think, the military looking into because it is such a low cost decentralized app that they can take with them. So food for thought. Thank you.

NUTRITION

Mrs. LOWEY. Thank you so much. And if I could just make one other comment, because I appreciated your comments. I would be interested in the focus, if you can follow up with us, on nutrition. I was at West Point not too long ago, and one of my amazing fellows, who was there 9 years ago, well, she said, the menu hasn't changed since the last 9 years. And we were there, I think, on a Friday and I saw those cutlets or whatever the heck they were.

So I would be interested in following up on the whole area of health and what you are doing to provide our extraordinary men and women the very best services and the best advice, and you do provide the best training in so many other areas. Thank you.

Thank you, Mr. Chairman.

WOMEN IN THE MILITARY

Mr. FRELINGHUYSEN. Thank you.

I would like to claim some time for myself here. Women in the military, all occupations are open to women. I served with Mr. Ruppertsberger on the Naval Academy Board when we gave the green light to—or at least maybe the Department of Defense did—women on submarines.

What are we doing today, given this decision, which I support, to assure that women, their medical needs are being adequately addressed? I have to say on the VA side, I am shocked that some installations still haven't gotten the fact that we have women veterans.

What are we doing relative to meeting the needs of women in the military today?

Admiral FAISON. Sir, I can address the Navy, since you mentioned that.

Mr. FRELINGHUYSEN. If you want to do the Navy, that is right, but we also have sitting at the table two of your colleagues.

Admiral FAISON. Oorah.

Mr. FRELINGHUYSEN. And I would like Admiral Bono and then General West, and then you, Admiral, if you don't mind.

Admiral FAISON. All right.

Admiral BONO. Thank you.

Mr. FRELINGHUYSEN. What are we doing? And I would also like to know, there has been an uptick in congressional directed spending. I assume all of you are familiar with Member and, obviously, service interest, and how that interacts to make sure that when we make those investments in R&D, whether we are making sure that women are some of beneficiaries. Please.

Admiral BONO. Yes, sir.

Mr. FRELINGHUYSEN. Thank you.

Admiral BONO. Thank you, Mr. Chairman.

So I think all the services, and I know they will speak for that, we have always paid attention to the health of our women in uniform, and so we have always had robust programs for that.

But to your other comment, about the care of women in the VA, many of us partner with the VA to provide women's health services, such as OB/GYN, mammo, other screening modalities. And so there is that effort to help the VA.

Mr. FRELINGHUYSEN. Respectfully, there are VA hospitals—

Admiral BONO. Yes, sir.

Mr. FRELINGHUYSEN [continuing]. That have not met that challenge. What I would like to see is whether our medical facilities are doing everything—

Admiral BONO. Yes, sir.

Mr. FRELINGHUYSEN [continuing]. That women need to look after themselves so we address the issue of readiness for both men and women.

Admiral BONO. Yes, sir. And as a matter of fact, one of the things that we have done at a policy level is recognize that a well woman visit would also include preventive as well as acute care for certain conditions that are women related.

So, yes, it is something that on a coordinated basis with the services, and at a policy level, we are making sure that women have access to all the care, both women in uniform as well as all of our women beneficiaries.

Mr. FRELINGHUYSEN. Just to put a point on it. We have a lot of military installations around the world. We have women on the battlefield in a variety of settings, sometimes we know where they are. Where they are not, we may not know. But are their medical needs being—the figure 9,800 comes to mind when we talk about Afghanistan. There are obviously women that are an important part of those components.

Admiral BONO. Absolutely, sir.

Mr. FRELINGHUYSEN. And how are we meeting the needs of women, whether they be on the Korean Peninsula, whether they be in Afghanistan, Iraq, Sinai, other parts of the world?

Admiral BONO. Well, I think you will hear too from the other services that as our MTFs, where we do a lot of our training, encompasses the full spectrum of care for men and women, and that allows our providers, who are forward deployed down at a later date, to have those skill sets in taking care of our women who are deployed and on the battlefield. So we do ensure that the full scope and the full care that is needed to support our women in uniform is available.

Mr. FRELINGHUYSEN. General.

General WEST. Sir, thank you. And again, I would like to recognize my predecessor, Lieutenant General Horoho, for her efforts in establishing the Women's Health Service Line, doing the task force on women's health to ensure that conditions unique to women are addressed.

Several of the things that were done were to determine ways to prevent injury. As we opened up the MOS's, the military occupational specialties, are there certain stresses on the skeleton that might be mitigated by certain interventions.

One of things that they found was maybe a multivitamin to decrease stress fractures. Body armor, just the configuration of body armor so it is more adaptable to the woman's body habitus to prevent stress points on resting on the hips or too high on the neck.

So just small things like that, which appear small, really impact the ability to do that.

Other specific research. For example, there was a study that found that women paratroopers, the jarring, the jump during certain periods during the menstrual cycle, when certain levels of hormone were not present, that could predispose them to injuries to—uterine injuries or prolapse. So studies like that that are unique to women have been done and are going to continue to be done.

So it is an extremely important aspect not only our women, but all of our servicemembers' health, but things that are unique to women will be addressed. And I believe as we open up establishing standards in each MOS, to make sure that it is standards based, once we know those standards, to ensure that we are not putting any of our servicemembers, men or women, in positions that would cause harm to them, is being worked.

Mr. FRELINGHUYSEN. Admiral.

General WEST. Thank you.

Admiral FAISON. Yes, sir. We significantly increased the training we provide our primary care providers, both those in our shore facilities and those afloat, since women are on most of our platforms today, to attune and sensitize them to the women's health issues that they will be dealing with, as well as provide consultative services and support if they have questions.

All of our MTFs have got very robust women health programs right now. All our preventive medicine services for women are basically available on a walk-in basis on demand, so mammography, prenatal counseling, and things like that are all available.

In addition, as General West said, we have noticed, especially for our female Marines, the importance of sports medicine and musculoskeletal conditioning. So we have actually female-specific clinic and services to help them in those areas.

There are a variety of research programs that are ongoing right now, especially for women in submarines, as I am sure you are very well aware.

And guiding all of this is a very senior steering group that looks at this on a regular basis to identify new opportunities and look at the outcomes of the research to help inform where we need to put our efforts next.

Mr. FRELINGHUYSEN. The Air Force.

General EDIGER. Sir, we continue to support medical research to do two things occupationally to improve the ability of women to perform in Air Force missions and occupations. One is, particularly particular to air crew, is the accommodation of female air crew members, particularly in long-duration missions. But also in researching our physical standards in some of our missions such as special operations to ensure that our physical standards are really set so that they actually do match the requirement of the mission, so that we give female Airmen a fair opportunity to compete and be selected for those special operational duties.

I would also add that Admiral Bono mentioned special aspects of medical care that are particular to supporting women in the operational environment. Our military family physicians, it so happens, are meeting right now in Denver. I attended one of their sessions yesterday that actually was a women's health session, and it was

focused on training our primary care providers to be able to provide women's health services in the operational environment.

Mr. FRELINGHUYSEN. Just one comment. We spend a little over a billion dollars on congressionally directed funding. I think it gets pretty high marks. Certainly Members are keenly interested in some of the advantages that R&D provides over and above what we do with the National Institutes of Health. And so I do hope, as you, gentlemen and ladies, take a look at that congressional contribution, I want to make sure that every aspect of all those R&D projects, primarily there is some tie-in to the needs of women as well.

REGENERATIVE MEDICINE

Mr. WOMACK. Thank you, Mr. Chairman.

Admirals, Generals, thank you so much for your service to our country and what you are doing in the field of DoD medicine.

General West, particularly, welcome to you. I value and continue to value my relationship with your predecessor, General Horoho, who was a tremendous representative of Army medicine, and make note of the fact that we are making quite an investment in the health and wellbeing of the men and women in uniform. It is crucial and it has led to some amazing results and innovation.

In fact, as has been the case the last 2 years in front of this committee, I have talked about the story of Sergeant Brendan Marroco. I continue to be amazed about it. When I talk to my constituents about his particular situation, there is never a dry eye left. And it is a credit to our Nation that we have the capacity to do what we did for that young man.

So my initial question is on the subject of regenerative medicine. There have been a lot of great things that have happened, and I am sure the sky is the limit on things that we can continue to do when we engage the scientific, the medical, the engineering community, and what have you.

So can you just take that, that softball that I have kind of thrown out there, and talk to us about that particular area of medicine?

General WEST. Yes, sir. And thank you for the question. As I mentioned earlier, the success story for Sergeant Marroco now not requiring any caregiver and on one medication for rejection, for transplant rejection, and he goes in once a year to the VA locally and then once a year for treatment. Amazing story.

So in regenerative medicine, the DoD has awarded more than \$200 million for the regenerative medicine efforts. That includes the Armed Forces Institute of Regenerative Medicine. And specific research areas of—or focus in those areas are the burn treatment and skin regeneration, the craniomaxillofacial regeneration, and also, as mentioned, the extremity regeneration.

And also, because of the nature of our wounds, a lot has been done for the genital, urinary, and lower abdominal reconstruction, as well as the vascularized—and I will have to read this one—vascularized composite allotransplant, which is the hand and face transplant. In fact, DOD has quite a bit of effort in the hand and face transplant, which is remarkable, given, again, the nature of

the weapons that are being used and the horrible injuries that they are having.

But just one on the burn injury and the skin regeneration products. There is a ReCell, basically a spray-on skin. I had the opportunity to see that when I was up at Fort Detrick not too long ago, it just was incredible, an aerosolized spray that has the skin components that they put on burn patients and actually cosmetically looks better than in the old, kind of the checkerboard look that you get with the multiple punch graft transplants.

So that is one where the cosmetic result and the need to reduce the pain that individuals have to go through with multiple wash-outs and debridements, you clean them off once and then you spray that on, just the remarkable results that you get with that.

And then two promising products that are currently being used there in the tech-based research that we hope will be advanced to the advanced development soon is the StrataGraft and also the KeraStat, which are two burn gels for treatment of severe burns.

So we really appreciate the support and just are happy to be able to report that there are some great advances that are on the horizon in these areas.

READINESS

Mr. WOMACK. Thank you.

Mr. Chairman, if I still have time for one more question, I am going to just kind of throw this out on the table for all to take a swipe at, but it is about readiness and the health and wellbeing of our member soldiers, sailors, airmen, marines, critical to the overall readiness. And through sequestration, we are having to buy back some readiness issues created by the sequester. You know, we are spending more money in training hours, facilities, equipment, this sort of thing.

What I want to make sure that we are not doing is that we are not paying any of those bills by taking money from you that go right to the heart of a commitment that we have made to the men and women in uniform who have gone downrange on our behalf. So how have we seen the health readiness fluctuate through this very difficult threat and budget environment that we have to kind of find a sweet spot somewhere in there? I will just throw it open for anybody.

General EDIGER. Sir, the resources we have in the Defense Health Program do ensure that we are in a position to provide the care we need to provide to our beneficiaries, primarily being the Active Duty and the Active-Duty family members.

In regards to the effects of the sequester and the health readiness of the force, I think one thing I would need to relate is that I think we are still seeing the impacts of the sequester on the Air Force's overall readiness in the form of stress on the force. For example, our aircraft maintainers, there was a good deal of deferred maintenance during the sequester, and as the Air Force has expanded its capabilities, we have seen that our maintenance community still struggles to catch up with the significant backlog of maintenance that was created during the hiatus during the sequester.

And we do see indicators of health impacts from the stress on our maintainers in the form of that is the skill set in the Air Force

with the highest suicide rate, for example. But other instances, like substance abuse and things like that. So that is one relationship I would point out between the sequester and health.

Mr. FRELINGHUYSEN. Thank you, Mr. Womack.

Mr. Visclosky, and then Ms. McCollum.

WOMEN PHYSICIANS

Mr. VISCLOSKY. Thank you, Mr. Chairman.

A number of issues were mentioned. I would just associate myself with them. We have had a discussion on alternative therapies, mindfulness, and would want to associate myself. I can't imagine the stress that military personnel are under. And being an accounting major, so what do I know? My sense is sometimes less is better than invasive and I do think there is value in pursuing that.

Secondly, smoking was mentioned. My understanding is that for Active personnel across DoD, 24 percent of the population smokes, 19 percent. You have already stated you are very, very committed in that effort, and I absolutely believe you and would again encourage you.

Food was mentioned, and I had a meeting with one of the adjutant generals for one of our National Guards and asked what is your biggest problem, and the general said fitness, meaning food, diet, exercise, and he is talking about military personnel. So every time I have had a meal, and I understand it, it is buffet style and I love it. But I encourage you on the food side.

The chairman talked about women. One question I do have is my understanding is more than half the students in medical school today in the United States are women. Are there an increasing number of women physicians in the services? Is there a shortage of women physicians? Could you address that?

General WEST. Sir, thank you for that question. And again, when I went to medical school at GW, it was about 50 percent as well then. It was a long time ago.

Mr. VISCLOSKY. No, it wasn't.

General WEST. Yes, it was, sir.

Mr. VISCLOSKY. Not that long ago.

General WEST. In the 1980s, 1980-something.

So we had actually an increased population of women. And I know in our medical school, they don't have the exact numbers, but I wouldn't say that there is a shortage of women. I think that those that apply, we have got a great cohort of very highly qualified women physicians in all specialties in MTFs, and I have seen them in our Navy and Air Force colleagues, in the deployed environment, in, again, surgical specialties, primary care specialties.

So I think I wouldn't say there is a shortage, because we have got, I think, a good, motivated group of individuals who want to be military physicians.

Admiral FAISON. Sir, I would echo what General West said. We are not seeing a shortage. We have met our accession goals across the Medical Corps for all our medical students that are graduating. A significant proportion of them are ladies because of, as you said, they are comprising a larger percentage of graduating medical school classes, and they are distributed across all our specialties.

I would go even further. They are also distributed across our operational forces. So I was down in Norfolk last week and visited several ships on the waterfront, many of whom had women physicians on board, and that just adds to the diversity and robustness of the medical footprint and the services that we provide our operational forces.

MILITARY MEDICAL MISSION

Mr. VISCLOSKY. If I can move on. I have a couple of more questions, just brief.

I appreciate, General Ediger, that in your testimony you talked about examples in the military medical mission. Too often we are very focused on the congressionally directed mission. And there has been a range of conversations.

Are there any gaps today that do cause you concern, that we could be doing a better job, there is a need, any funding issue on the military medical mission side?

Mr. Ruppertsberger mentioned a couple of others. So it sounds like it is okay, but just is there some little slice we are missing?

General EDIGER. Sir, I would say that our biggest concern in terms of our future capability really relates to our readiness, and that is because the care we take forward now is more complex than ever before. And so that really means that we need to keep the deployable medical team ready to go forward with a broader range of capabilities than they have had before, because we now have the technology, the knowledge, and the techniques to do more in a forward environment. For example, we do vascular surgery techniques and neurosurgery in field hospitals now, not something we would have tried when I came in the military.

And so in order to keep our teams ready, I think it is really key that we be able to give them the opportunity to provide specialty care in our hospitals of a more complex nature than our population generally provides. And so in my statement I referenced our difficulty in terms of always capturing the volume of referral care from perhaps the Veterans Administration. That really helps our readiness. It also produces good care for the veterans at a savings to the government.

And so that is the concern I have right now about our future readiness, is our ability to successfully pull in more complex specialty care to our hospitals to ensure our deployable teams are ready.

Mr. VISCLOSKY. Would it be a money issue at all, or is it just, again, the emphasis in organizing, training, and the delivery of services?

General EDIGER. Right now, frankly, the issue I just referenced is more of an administrative issue in terms of some restrictions on the use of certain types of funding.

MENTAL HEALTH SCREENING

Mr. VISCLOSKY. Mr. Chairman, if I could, the Jacob Sexton Act, which was contained in the 2015 defense authorization bill, required annual mental health screening for Active, Guard, Reserve military personnel. During last year's hearing, I understood that

the agency was in the process of developing policy and implementation for conducting those annual assessments.

Admiral Bono, where are we today in that?

Admiral BONO. Yes, sir. Thank you very much for that question.

We are in the process of being able to provide a response of our initial evaluation of that. We were asked to evaluate that as something to potentially apply. And so we will be providing a report to that shortly.

We wanted to be able to look at the feasibility of being able to provide that kind of screening as requested.

Mr. VISCLOSKY. You have a date on when the report will be completed?

Admiral BONO. I don't have the exact date. I will take that for the record. I do know that we are in the process of putting that together, though.

[The information follows:]

The Department of Defense (DoD) provides person-to-person mental health assessments (MHAs) for each Service member deployed in connection with a contingency operation as required in Section 1074m of Title 10, United States Code, and in accordance with DoD Instruction (DoDI) 6490.12, "Mental Health Assessments for Service Members Deployed in Connection with a Contingency Operation," dated February 26, 2013. DoDI 6490.12 is being amended to incorporate the requirement to conduct an MHA once during each 180-day period during which a member is deployed (in-theater MHA) until January 1, 2019. This policy is in final coordination and is expected to be published by July 2016.

The Department is integrating the annual MHA requirement into the Periodic Health Assessment (PHA) process in an effort to standardize these assessments across the military components. This requirement has been integrated into the DoDI for PHAs, which is currently under informal review at Washington Headquarters Services. The revised policy is estimated to be published by July 2016.

Mr. VISCLOSKY. Thank you, Mr. Chairman.

Admiral BONO. Thank you.

Mr. FRELINGHUYSEN. Thank you, Mr. Visclosky.

Ms. McCollum.

EBOLA AND ZIKA

Ms. MCCOLLUM. Thank you, Mr. Chair. I am trying to do triage. I have three questions, and I think they are all equally important. So with the Chair's indulgence, if I am quick on my question and we can get to a reasonable response, maybe I can get through a couple of them.

The first one I want to just take a second, though, is talk about what we have learned from the outbreak of the Ebola crisis and how you worked on this. West Africa, just a short while ago were resources deployed by the U.S. Army, saved thousands of lives, thousands of lives, and the effective response really speaks to the values that we get from funding infectious disease research, the development of the U.S. Army Medical Research and Materiel Command.

So with so many global health challenges out on the horizon, I want to make sure, as people have been talking up here, that you have all the tools that you need. So could you please maybe tell us what we can be doing to make sure that you have the proper research, the proper equipment, that we give you time to reflect from lessons learned? Because now people are talking about Zika, and I have heard the military be talked about being dispatched in that.

So can you maybe tell us a little more about, particularly General West, some of the best practices that you learned from the Army's response? And can we apply these lessons learned to future global health emergencies? And are there things that are in other portfolios that make you able to do your job working with the CDC and others?

General WEST. Ma'am, thank you for that question, and I will try to be really brief because I know that you have a couple of those.

First, I want to say thank you very much for all the support for the research funding to get to the point that we are today.

What we learned from the Ebola crisis and response to that, it was a multiservice effort. We also had our colleagues from the Navy, the Navy labs that assisted in that as well. And so the research, with the ability to have a rapid test for Ebola, again, saved thousands of lives.

Our research on all the other infectious disease areas, such as malaria research, and for Zika now, the DoD had the Flavivirus research, and Zika is part of that family, actually had some research ongoing for that or starting for that family of viruses, we are able to apply that and work with CDC and others in a methodical way to come up with, hopefully, a vaccine for that.

So we do appreciate the research dollars, and I believe that it is—we are making sure that we have lessons learned, and then other advances that will ensure that we can go after those globally relevant infectious diseases.

Admiral FAISON. Ma'am, if I can add on to what General West said. The one thing that I took away from this was the value of an agile Military Health System that can rapidly respond. There has been a lot of discussion about what is the role of the Military Health System. If you look across the world, there are only two nations, China being the other one, that maintain a standing medical force ready to surge on a moment's notice to a crisis such as Ebola or now Zika.

And so the one thing that I learned was the value of having something that is ready to go out the door very quickly with that. Thank you.

CONCUSSIONS AND PROSTHETICS

Ms. MCCOLLUM. Thank you, Mr. Chair. I will combine my other two questions.

The first one is going to be on concussions. So late last year there were a number of concerning stories in *The New York Times* regarding concussions at the service academies. The articles explored concussions sustained by cadets both in physical education programs and during free time on the academies' grounds.

So given that one of the enduring legacies of the wars in Afghanistan and Iraq is our attentiveness to concussions and traumatic brain injury, I think it is important for this committee to get an update from the service branches on the prevention and treatment of concussions. The protection and treatment of our cadets, members of garrisons, it is all important that we do that. And we need to also not only be doing the prevention side, but when we have the concussion recognized and diagnosed, to make sure that we are

fully watching what that servicemember is going to need in the future and mitigate a future risk to brain injury.

So I am going to the Traumatic Brain Injury treatment center at Fort Belvoir later this week because I want to learn more about these facilities so that we can be helpful as a committee to make sure that you have what you need, necessary funding, because there is an injury, as any injury, not only affects the servicemember who is the recipient of a tragic injury, but it affects the whole family too.

The other question I wanted to learn more about—and I thank the committee for its support in trying to get information and move this forward in the past—has been in the biomedical technology research program at the Defense Advanced Research Projects Agency. And one of the things that I have been trying to focus on as I have been speaking to female veterans who are amputees, they often find themselves at a great disadvantage to male amputees when it comes to adequate prosthetics, find that they don't have the same scale. You know the medical terms, I don't, but it is not a good fit for them. And when it is not a good fit, it affects how well you heal, how active you become, but it also can do joint damage in that.

So if you could tell me a little bit about concussion and what we are doing in prosthetics. And I know that the artificial limbs are also important to male members who are receiving them and who have been wounded in war. They have told me about the discomfort. But when you talk to some of the female veterans, in particular, now that we are seeing them sustain more of these very, very severe and critical injuries, but when treated right, can be life transforming. Could you tell me a little bit more about prosthetics and concussion?

General WEST. I will start real quick on the Traumatic Brain Injury. First, for the TBI, the MRMC, our Medical Research and Materiel Command, manages the largest TBI research portfolio in the world, literally. It is \$844 million, and there are over 590 funded research projects, and that is multiservice interdisciplinary to find cures. So there is a lot of work and a lot of good research that is coming out of that.

Boxing at West Point. Having a plebe at West Point that just completed first semester boxing, as a parent, I know I am very concerned. To ensure that as much mitigation to prevent injury is present is really foremost in my mind.

And so specifically for boxing, the mitigation strategies, and I asked my son, and they actually do keep this. Cadets wear the padded gloves, head gear, and mouth guard, and then they limit the amount of types of strikes that they are allowed to have per round to minimize the amount of injury. And he said that they are pretty strict on that. Once you throw a cross, once you have done that, then that is it, and they are monitored very closely to ensure that there is the safety of that.

They are also part of the Grand Alliance with the NCAA, which has lines of effort for concussion management, ensuring that the symptoms of concussions are recognized early. And then Mind Matters grand challenge competitive educational project that encour-

ages the innovation to change the concussion safety in sports. And so they are part of that to mitigate the strategy for that.

And for prosthetics, you are absolutely right in ensuring that we have all of our servicemembers that need prosthetics, that they are custom fit. And, in fact, all of our prosthetics are custom made for the individuals based upon their limb size, their circumference. And the number of amputees we have, unfortunately, in our female population is—it is not as large as the—1,600 overall from OIF/OEF alone, not to include our motor vehicle accidents and things like that. And the number of women is in the 20s, so it is a smaller number, but it is important that we make sure that we have the customized prosthetics for them as well.

Mr. VISCLOSKY. General, I didn't understand your statistic, 1,620?

General WEST. Sir, the total number of amputees of all in the Army is—

Mr. VISCLOSKY. Sixteen hundred.

General WEST [continuing]. Is about 1,600 total. And then for women it is 20.

Mr. VISCLOSKY. Okay. Thank you.

General WEST. So it is a small percentage of women that sustain amputations.

Ms. MCCOLLUM. Could I do two quick follow-ups? One would be I know West Point has now banned the pillow fights. They knew it was a problem. They knew what was going into some of the pillow cases. If you could elaborate on what the service academies are doing.

I mean, young adults will be young adults. College students will be college students. But when they are in the charge and when you become aware of things that are not healthy that they are doing, I know that you try to step in and mitigate, whether it is alcohol. And pillow fights also were something that were causing concussions and traumatic brain injury.

But the other question I have, going back to the prosthetics, is not only the customization of the prosthetics, but it fits on, it attaches to bone at some point. And that is something that I was hearing that at the VA institutions working with the DOD that we were looking at how we mitigate some of that pain, and then the bone in and of itself wearing out, especially in women because of their joint structure and everything, even were finding that more of a challenge as well.

And then after that, Mr. Chair, thank you for your indulgence.

General WEST. Thanks, ma'am. I will take that for the record to determine if there are any specifics, you know, if there are supplementary things that would help strengthening the bone. But I will get with our experts and get a good answer for that one.

[The information follows:]

Osteopenia and osteoporosis (loss of bone density and strength) are well documented in anyone who is non-weight bearing. In standard post-amputation rehabilitation, this is addressed through resistance/strength training and early weight bearing.

In the DoD, several rehabilitation methods are followed to maximize bone strength and prevent injury. For any Service Member who wishes to return to running or any other high-impact activity, a bone scan is mandatory to insure sufficient bone density before that high-impact activity is allowed. The DoD has avoided frac-

tures in our amputation population, for both men and women, by utilizing this protocol.

There are other techniques, still in research, which may also assist with improving bone health. One such technique is osseointegration. Osseointegration is the integration of a metal post into a long bone (typically leg/femur or arm/humerus). However, more research is required in this area.

Regarding female Service Member access to prosthetics, every amputee is prescribed individualized prostheses to meet their personal goals for optimal functional outcome. Amputation level and complexity are the primary factors in determining a prosthetic solution. Gender is a factor; however, it is considered with a host of other factors such as activity level, age, and outcome metrics. The most important factor is patient expectations.

DoD prosthetists provide appropriate prosthetic interfaces for the female Service Member. This includes state-of-the-art artificial limbs, with features such as lighter weight components, prosthetic feet customized to wear with different heel heights, and custom, life-like cosmetic covers with paintable nails. DoD, working collaboratively with industry and academia, has driven development in these areas. The range of sizes and shapes of prosthetic components is gradually increasing across all component types. Of note, these developments have increased the quality of care and outcomes for our male Service Members as well.

DoD epidemiological review of data reflects 90% of our female Service Members who sustain combat-related amputations are independently ambulating on discharge from their initial rehabilitation period. Beyond ambulation, our female Service Members are skiing, running, swimming, playing tennis, and competing in triathlons, so their expectations for functional outcomes are very high. Those high levels of function require customized and individually crafted prosthetic devices that fit each person exceptionally well. A poor fitting prosthetic device is uncomfortable, creates skin breakdown, and reduces user control and function. Poor socket fit would not allow our female Service Members to achieve the high levels of function that they currently achieve, such as competing in the Paralympics.

Ms. McCOLLUM. Thank you.

FAMILY MEDICINE

Mr. FRELINGHUYSEN. Thank you.

There is just an update on Brussels since you have been here. Six American citizens injured, including five family members of the U.S. military. That is pretty horrendous. And I am sure we are meeting their needs and will be meeting their needs.

I just have some questions. This morning we had the Army Caucus, General West, and I sat behind General Dyson, and I asked about how many of those in the military today are married. Do you know the figure of those that are married? And this sort of gets to the whole question as to the military medicine addressing the needs of families. It is quite a high figure.

General WEST. Yes, sir.

Mr. FRELINGHUYSEN. You would agree.

General WEST. Yes, sir.

Mr. FRELINGHUYSEN. I heard the figure 45 percent.

Admiral, do you—

Admiral FAISON. Yes, sir. About half of active-duty servicemembers are married.

MEDICAL READINESS

Mr. FRELINGHUYSEN. I just have a few questions. Hearing loss, huge issue. People come to see us. Eye care. I think Members of Congress have raised the whole issue of the number of people that have been in the battle space who come back with eye injuries, and at times, I sort of worry that maybe we are not focusing enough

on that. Dental. Could you briefly comment, if any of you have any observations.

And then of course you have the issue of the Guard and Reserve generally being ready. We have one Army. We obviously have one Air Force and Navy. But the readiness aspects that relate to these pretty basic issues.

General EDIGER. Yes, sir. In regards to the Reserve Component in the Air Force, the Air National Guard and the Air Force Reserve are very much a part of Air Force operations day-to-day, and so they have the same readiness standards that we have in the Active Force. And it is true that several years ago we had some lagging indicators in terms of medical readiness in the Reserve Components, but the Air National Guard and the Air Force Reserve have both made impressive progress in terms of bringing up the medical readiness of the individuals serving in the force, and they are now on a level commensurate with the Active Force.

HEARING LOSS AND EYE CARE

Mr. FRELINGHUYSEN. But I assume all of you would agree that there are some continuing issues that relate to hearing loss and eye care? If you could talk about that briefly.

Admiral FAISON. Sir, I will address the hearing loss because this is a big issue for the Navy.

Mr. FRELINGHUYSEN. It gets to the whole issue of concussions. A number of people have come back from multiple deployment who have degraded hearing. I mean, it is pretty shocking.

Admiral FAISON. Yes, sir.

So the Navy convened, and I actually chair this, a very senior work group that reports directly to the Vice Chief of Naval Operations on specifically hearing loss, and we monitor trends among the active duty, both those that are on shipboard and other operational environments, as well as those deployed. And part of that is collaborative with the Office of Naval Research to look at emerging technologies to improve hearing protection, if you will, and there are several pilots and research studies ongoing right now in the Navy to look at how we might do better in protecting hearing loss, realizing that it is such a huge issue for our active duty. The Navy, by its very nature, is a noisy environment, so we are very engaged on this.

General WEST. Sir, I will just briefly talk about the protection for conserving sight. The Army has a very rigorous and aggressive campaign of ensuring our servicemember wear their protective, antiballistic, their Eye Pro, even in operations in garrison, just to getting them used to wearing their protective eye wear at all times. So that is really very important.

And also in our Traumatic Brain Injury, our Intrepid Spirit Centers, we have got neuro-ophthamologists and neuro-optometrists who actually can identify some of those visual problems that might exist, might occur after concussion, or Traumatic Brain Injury, more severe Traumatic Brain Injury, and then treatments for those problems with their vision.

LANDSTUHL REGIONAL MEDICAL CENTER

Mr. FRELINGHUYSEN. Just a couple of other comments. Let me give a shout-out to the people who work on the prosthetics at Walter Reed Bethesda. It is a pretty amazing operation. I know a number of Members have been out there to see it. But in reality the things that are done every 6 months, maybe in a year to, shall we say, meet the different changing physical characteristics that come with us getting older or perhaps gaining weight. It is a miracle operation out there, and certainly we need to make sure that women, their issues are addressed.

Changing the subject. The hospital, Landstuhl, its replacement, maybe that is not in your purview, but in reality I assume there must be some degree of frustration that we don't have an upgraded medical facility. Are you familiar with what is going on over there? And do you have any concern about progress being made?

It is not the jurisdiction of our committee, but it is our jurisdiction, because when we set that up we need to make sure that we have the most modern, accessible facility as possible. Any comments?

General WEST. Yes, sir. And I can comment, when I was the commander of the Europe Regional Medical Command, we were in the process of working through the requirements for the new facility, and we also worked with also our Air Force colleagues that have a requirement for an upgrade of their facility there as well.

So we made sure, working with the German Government, of course, because there is a requirement to meet the code for that as well. But I believe that we have got the right capabilities that are built into the new structure that is going to be built for that replacement facility.

MEDICAL DISCHARGE

Mr. FRELINGHUYSEN. Glad to hear it.

Lastly, it used to be more frequent we would run into those who have been injured in the Middle East, relative to the whole issue of medical discharge. There are some who are so devoted, as I am sure you know all too well and we know too well, to staying with their units and keeping their loyalty to their specific service and to their buddies.

Any comments about whether we have made any progress or any observations on the whole medical discharge situation? It is, I think, of concern to all of us.

General WEST. Yes, sir. One of the things, as far as the unit integrity, just a real quick comment on that. Some of our servicemembers, there are actually programs now that servicemembers who were injured were evacuated back unconscious, for closure, actually have programs where they fly back to the area to see where their unit was to get closure in that area.

But as far as the process for our IDES system, our Integrated Disability Evaluation System, ensuring that our servicemembers get the proper evaluation, and actually it is, I think, a better system for them because it is integrated with the VA, and they get not only their military discharge physical, but before they get their DD214 they have already had their VA evaluation and their per-

centage so they don't have to start the process all over again once they are discharged from the service.

And we have gotten good feedback. That was kind of a one-stop, had all that before they left service, so they weren't kind of left on their own to try to figure it out after they got out over.

Admiral FAISON. Sir, when somebody is injured, if they want to stay on active duty, we make every effort to keep them on active duty. We find they have better outcomes and they tend to do better long term. But more importantly, they are good role models for our other Soldiers, Sailors, and Marines. So we try and keep them if we can.

When they can't, that is a mutual decision that we make with the servicemember, but wherever we can, if they want to stay on active duty, we will make every effort that we can to keep them.

Mr. FRELINGHUYSEN. Glad to hear that. And we haven't really had a focus on electronic medical records, but in reality that transfer to the VA system is a major step. Certainly having a seamless system is one element of reassurance that, quite honestly, they deserve.

Mr. Ryan.

ZIKA

Mr. RYAN. Thank you, Mr. Chairman.

I just have one quick follow-up, more along the lines of the Air Force, with the Zika virus. My district is home to the 910th, which has the aerial spray unit, and so I was just curious about any kind of coordination that may be happening with the health side with kind of the deployment side and how that would work and making sure that we are coordinating.

I know they are involved in a lot of training operations and they are all over the world, and we want to make sure that what you are doing is connected to their ability to take care of the situation, if need be. If you can answer that, making sure that they have the capabilities they need to be able to get this stuff out.

General EDIGER. Yes, sir. Requests for support through aerial spraying, for example, for mosquito control, come in through USTRANSCOM or the Air Mobility Command, and there are surgeons there who are advising them in terms of the medical aspects of that.

For the Zika virus, in particular, we know that that particular mosquito, probably the most effective way to eradicate it is through killing the larva, which is done in a different method than aerial spraying. Aerial spraying has some impact for the mosquitoes that are grown and flying about, but I think the focus in terms of controlling the *Aedes aegypti* mosquito is on the larval stage of that, which, unfortunately, requires an on-the-ground kind of presence.

But, yes, when there are requests for support through aerial spraying, we do have a senior medical representative in the commands as they consider those.

Mr. RYAN. Thank you, Mr. Chairman.

Mr. FRELINGHUYSEN. Mr. Visclosky.

MENTAL HEALTH

Mr. VISCLOSKY. Thank you, Mr. Chairman.

I have two questions for the record, Admiral Faison, and would compliment the Navy. A couple of years ago we had questions about mental health, and the Navy had at that time about 123 programs, my observation being you have none if you have that many. My understanding is the Navy has been very, very focused on it. But I have two questions for the record. But, again, I want to thank you.

Admiral FAISON. Yes, sir.

COMPOUND PHARMACEUTICALS

Mr. VISCLOSKY. The first question is, we had a long discussion last year about the compound pharmacy cost. My understanding, progress has been made. But given what I feel were the immoral activities, if not outright illegal activities of some of these people who compound it, were any individuals or businesses debarred from any further contracts with the Department, and has anybody been prosecuted? Because if there are people every day connive and if there is never a signal sent there is a price to be paid for stealing money. And I have two more questions. So just tell me you debarred somebody.

Admiral BONO. Yes, sir. We have identified those pharmaceutical companies that have done just that, and they are no longer able to participate in providing care or frauding any of our patients. Yes, sir.

Mr. VISCLOSKY. Good for you. Do you know whether there were any—I appreciate that very much—were there any prosecutions, do you know?

Admiral BONO. Yes, sir. We have been working very closely with the Attorney General and the Department of Justice.

Mr. VISCLOSKY. Good for you.

Admiral BONO. And so we actually have some sting operations in several areas. So, yes, sir, we have prosecuted—we haven't, but we have let the Department of Justice.

Mr. VISCLOSKY. Yeah. No, no, no. That was just so wrong on many levels.

Admiral BONO. Yes, sir.

SEXUAL ASSAULT PREVENTION

Mr. VISCLOSKY. Second question is on sexual assault. As I understand it, as far as those who help individuals who have been assaulted, are there special training programs for those positions, and are we adequately funding that training program?

Admiral FAISON. Yes, sir. In the Navy, we have 331 providers that receive special training in sexual assault response. In addition, there are additional programs for victims' advocates and other support services that are brought to bear when there is a victim of a sexual assault.

Those programs are well funded. They are well participated. Yes, sir.

DRINKING WATER

Mr. VISCLOSKY. Last question I have. Because a lot of our facilities are older, there has been a lot of attention paid to lead levels

in drinking water, in the State of Michigan, for example. Any problems in the military you have ascertained? Is there testing going on for that particular problem?

General WEST. Sir, we do. We are working with the Installation Management Command for the Army, I am sure this is similar with the other services, of diagnosing any type of—or evaluating the water. We found that there were a couple of installations that had, due to the disposing of firefighting sprays that contained certain contaminants, PFOA, which is the perfluorooctanoic acid, and others, ensuring that there is not elevated levels.

So they have actually been screening for that, and they found at 23 installations, they tested the water for that level, found none, and those that did find some traces, they were below the parts per billion that was normal.

So we do routinely test water for contaminants. Thank you.

Admiral FAISON. Yes, sir. Same thing with the Navy. We have a senior board that meet quarterly; I am a member of that, and we look at water quality at all our installations around the world.

Specifically for the firefighting chemicals, we have a program right now to aggressively test all our facilities around the world with that, to include 1 mile upstream or uphill, if you will, in the water gradient, and where we find exceedances beyond the public health advisory, we provide bottled water for those folks.

Mr. VISCLOSKY. Thank you very much.

Thank you, Mr. Chairman.

TRICARE REFORM

Mr. FRELINGHUYSEN. The Department is again proposing to replace the current TRICARE program with a more consolidated TRICARE health plan. The Department claims that the consolidation will allow for a simpler system while not changing the health care of Active-Duty servicemembers. Beneficiaries will have two, and correct me if I am wrong, two care alternatives, an HMO-like managed care option, which focuses on the use of MTEs, which you have referred to, and a PPO-like unmanaged system that offers more choice but at a higher cost. The proposal would save TRICARE about a billion dollars annually starting in fiscal year 2018.

Where do we stand on this? And you are assuming, of course, some authorization, which indeed would provide us with some savings. Are you prepared to talk about this program?

Admiral BONO. Yes, sir. Thank you very much.

We are proposing TRICARE Select, which is our HMO model, and TRICARE Choice, which is the PPO, the preferred provider model. And what we hope to be able to do with that is provide our beneficiaries with greater choice to the types of health care that they desire.

But we have also ensured that access to the MTFs, which is our main readiness platforms, are preserved, and so we have incentivized being able to go to the MTFs, regardless of which program our beneficiaries choose.

Mr. FRELINGHUYSEN. Have you had any initial reaction from the authorizers, or is it the annual reaction? Otherwise, our committee is going to be struck with quite a large bill here.

Admiral BONO. Yes, sir. We have had a lot of interaction, primarily, though, with our beneficiaries, to make sure that we have an understanding of what their interest and needs are. And so we, as you mentioned, have looked at this and have been able to project the savings that you mentioned there.

Mr. FRELINGHUYSEN. What is your interaction with the authorizers, to date?

Admiral BONO. Authorizers, to date, have been just as we have submitted that.

Mr. FRELINGHUYSEN. Okay. Any further questions from members?

Ms. MCCOLLUM. Mr. Chair?

Mr. FRELINGHUYSEN. Yes, Ms. McCollum.

VETERANS ACCESS TO HEALTHCARE

Ms. MCCOLLUM. It is not a question but more trying to understand something that we have been doing as a Congress. There has been a movement, and at times it is extraordinarily proper to do so, that our veterans can access non-VA facilities and be reimbursed, but then when it comes to TRICARE it is the exact kind of opposite reaction, that the private sector not be part of it.

And I think you are right that we need to bring veterans groups, service groups, we need to bring military families, and we need to figure this out so that people are getting good quality health care when and where they need it so that it is sustainable, because if we don't get a handle on it, I am afraid of some of the backlash that could happen a decade from now with healthcare costs.

So I don't know how we rectify these different ways in which we approach health care. In one hand, it is good to start looking at taking people away from the VA system, but at the same time, when there are discussions about opening up TRICARE, it doesn't receive the same kind of open-mindedness.

So my question is, you said you have been talking to people, are people afraid of the cost? Is that the reason? Is it the cost, what is going to happen with prescriptions, what happens with copays? Is it the cost or is it where they are receiving the care?

Admiral BONO. Primarily, the conversation we have had with our beneficiaries has to do with being able to access the MTFs, which is something that we have all actively taken part in addressing that.

General WEST. I have one.

Mr. FRELINGHUYSEN. Yes, General West.

General WEST. So one of the concerns, I think the cost, from my perspective as responsible for providing medical capabilities to the operating force, it is a little bit different mission than the VA. We have to have capabilities.

And so the concern is, is if too much workload of the diverse patient population is diverted from our military treatment facilities, which are our readiness platforms, then we might not have the diversity of patients and the ability to keep our force prepared and ready to go because we do much more in those military treatment facilities than just care.

And so having that diverse population keeps our folks ready and our teams ready, because it is not just the physicians, it is the nurses, it is the techs, and things like that.

TEACHING HOSPITALS

Ms. MCCOLLUM. And, Mr. Chair, this has been a concern of mine, because as our teaching hospitals are finding themselves under more and more pressure all across this country with reimbursements and the cost of medical school and everything like this, you are becoming the platform of teaching hospitals.

My children were delivered by a person who got their training in obstetrics and gynecology in the U.S. Army. I mean, you are also a significant teaching hospital, and if you don't have enough deliveries and things happening and routine things happening, you can't train people on it.

So I think that that is part of the conversation that people don't talk about unless you talk about the impact it is going to have on your ability to not only train people to be providing first class medical care to our service men and women, but also for those who go back into civilian life later on. It is a platform for teaching hospitals, whether it is burns, whether it is deliveries, whether it is prosthetics, concussions, like no other, and it would be devastating to this country to lose these teaching hospitals.

General WEST. Absolutely.

Admiral FAISON. Ma'am, if I can add onto that as an operational imperative. We train about 60 percent of our doctors. The reason we do that is because we send doctors to very isolated duty afterwards. It is not to go down the street and set up shop and there is a hospital in the community and other doctors to help them out; it is very isolated duty.

The other reason we do that, and, ma'am, you mentioned this, is if you look across our nation right now, there are not enough residency programs to support all the graduates coming out of medical school every year. There are 1,000 less residency slots. We have four surgeons that just didn't match to go into a training program in the Navy. So that is four surgeons that I can't get into training this year.

So it is a big challenge, and we are very worried about pushing things into the civilian sector because we won't have the clinical experience that our staff needs for the next conflict and we won't have the well-trained physicians and nurses and corpsmen that we need to save lives on the battlefield next time. Thank you.

Mr. FRELINGHUYSEN. Mr. Visclosky.

Mr. VISCLOSKY. I will ask later. Thank you.

FAMILY CARE

Mr. FRELINGHUYSEN. On my visit to Brooke, I guess it has changed its name, but Brooke Army Center, you are pulling in a lot of the population in that neck of the woods in order to make sure that those skills, that they are high quality. And of course there is the issue here of morale. Considering the number of those in the military today that are married, they expect and anticipate, as they should deserve, the highest quality care for they and their families.

On behalf of the committee, we want to thank our panelists for being here, and our thanks to the men and women that you represent for the superb job they do each and every day.

We stand adjourned. Thank you.

[CLERK'S NOTE.—Questions submitted by Mr. Calvert and the answers thereto follow:]

ARMY'S HIV DIAGNOSTICS AND REFERENCE LABORATORY (HDRL) BUSINESS CASE ANALYSIS (BCA)

Question. This Committee has raised questions about an ongoing effort by the Army to move HIV testing for personnel in house. This testing is currently outsourced and has been providing efficient, effective results for many years. We have been trying to get a full explanation, but thus far the Army's HIV Diagnostics and Reference Laboratory (HDRL) has not been responsive. The FY 16 Committee Report included directive language that both the Army and Navy provide a detailed report, with Business Case Analysis (BCA) of plans to take HIV testing in-house. These reports are due 90 days after the bill's enactment, which has already passed, and this request has been publicly available for months. There are a multitude of questions we've asked in recent months, related to costs, efficiency, and ultimately accuracy for the benefit of patients. Answers thus far have been vague and we are not able to see the BCA used by the Army because they contain Source Selection information which is protected by the Procurement Integrity Act FAR 3.104.

When can the Committee expect to receive these reports?

Answer. As required by House Report 114–139, the Army submitted the Report to Congress and associated Business Case Analysis to Congress on 17 March 2016.

ARMY'S HIV DIAGNOSTICS AND REFERENCE LABORATORY (HDRL)

Question. This Committee expressed clear concern in Report Language regarding any plans to move HIV testing in-house. It would appear responsible to place a hold on these plans until these concerns were addressed and directed analysis provided to the Committee. Please confirm that you agree with these sentiments and no actions have been taken which would represent an end run around the Committee directive language.

Answer. The Army has been fully compliant with the language in House Report 114–139. The Army submitted the Report to Congress and associated business case analysis on 17 March 2016. Prior to the enactment of the Consolidated Appropriations Act 2016, multiple procurement actions were already in varying stages of the procurement process to support the transition of Army HIV testing from a contracted service to testing performed at the HIV Diagnostic Reference Laboratory. Army Medicine continues to proceed with efforts to ensure there are no lapses in HIV testing services; and that these services are of the highest quality, fully support medical readiness and the Force Health Protection mission, and is administered in a cost-effective and efficient manner.

HEALTH COST CURVE

Question. In the last decade, the annual cost of the military health care system has more than doubled from \$19 billion in 2001 to over \$53 billion today. The Congressional Budget Office (CBO) estimates that military health care costs could reach \$65 billion by 2017 and \$95 billion by 2030. With the wars in Iraq and Afghanistan winding down, many veterans are returning with life-lasting physical and mental wounds. Our military members and veterans experience higher survival rates, thanks to the great work of Corpsmen, surgeons and our military medical teams in combat. In addition, our military members experience longer and more tours of duty with multiple injuries. As veterans age their injuries worsen over time. The bulk of the money that will need to be paid out for medical costs will peak decades later.

What is being done now to ensure those individuals will continue to receive the care they will need in the decades to come and that costs will be controlled?

Answer. Caring for our active service members and veterans is a solemn responsibility, and the Department of Defense (DoD) and Department of Veterans Affairs (VA) are working together more closely than ever to deliver exceptional health care in the most cost effective manner.

Controlling health care costs is a priority for the DoD, and DoD does so using two strategies: (1) achieving savings within the program itself, or (2) requiring beneficiaries to pay more for the health care they receive. Over the past several years,

program efficiencies have been extremely successful and have included implementation of Federal Ceiling Pricing (a discount drug program), the Outpatient Prospective Payment system (a transition to more favorable Medicare rates for private hospitals), Patient-Centered Medical Homes, and the Defense Health Agency's Shared Services (reducing redundancy and improving coordination among the Services) and have resulted in roughly \$3 billion in annual savings.

The VA is going through the most substantive transformation in its history with the distinct goal of improving access to quality care in a cost efficient manner. In this effort, DoD and VA are partnering on a record number of initiatives to improve veterans' care and drive down costs. Examples include streamlining referral and business processes; facilitating data sharing; increasing reciprocity of caring for each other's patients; pursuing joint credentialing; focusing on big dollar savings through Medical Category Management for supplies and services; piloting a true joint DoD/VA facility at the James A. Lovell Federal Health Care Center; and overseeing nearly 50 active DoD/VA Joint Incentive Fund projects designed to improve access and quality, increase efficiency, and transform both organizations.

TRICARE RATES

Question. I applaud the Autism Care Demonstration policy changes to align the TRICARE benefit with best practices. This being said, I am still very concerned that the recent autism rate cuts will place continued access to care at risk. Good policy without access defeats the purpose. Providers serving families at Camp Pendleton, Miramar and the San Diego Naval Base were hit especially hard by the recent cuts. Orange County and San Diego, which has a cost of living comparable to Washington DC now align with rates in Arkansas and Idaho. This is just one indication that TRICARE's methodology for calculating the new rates is flawed and will have a direct effect on access to care.

I have been hearing from providers in my district that they will no longer be able to accept new TRICARE patients or will leave TRICARE all together. Are you aware of the effect the new rates are having on access to care?

Answer. My team and our Regional Contractors are monitoring access daily. At this point, we have seen no negative impact on access to care in California due to the new rates. We have network providers available; two of our largest providers are remaining as network providers, and our contractors can also place patients with non-network providers if needed to ensure access. The rate calculation process is working as best evidenced by what happened to the California rates and those in 11 other states since the original rates were calculated and posted on December 1, 2015. During our re-survey of the statewide Medicaid rates in January-February 2016, we identified 11 states that had adopted or adjusted their rates and we updated the new Medicare locality factors. Those changes resulted in adjustments to all of the rates in California, with the rate for the Behavior Technicians now ranging from \$44.34 to \$50.98 per hour compared to the previous lowest rate of \$42.50.

We continue to believe this reimbursement rate calculation approach is most fair to all providers. The adopted rate calculation process ensures: establishment of applied behavior analysis (ABA) rates based on external studies; a consistent and fair calculation process; an annual review of the rates like all other TRICARE rates (current rates have not changed in almost 8 years); an approach that approximates future Medicate rates, and rates adjusted for the 89 geographic areas recognized by Medicare (which recognizes both the high-cost areas and more rural areas). It is important to remember that TRICARE will, by statute, immediately adopt the Medicare rates when they are established. This rate calculation process best "predicts" what Medicare rates would have been if they had covered ABA services.

Question. It is my understanding that the purpose of the Demonstration is to improve access to care and identify the value of Applied Behavior Analysis (ABA) services. This is a Demonstration, and like any demonstration or analysis. When you interrupt care or significantly delay services, it has the potential to dramatically skew and interfere with the end results. What steps are you taking to postpone the rate cuts and avoid interruption in services for this vulnerable population?

Answer. The 2016 Reimbursement Rates were implemented on April 1, 2016, and will not negatively impact the evaluation of the Comprehensive Autism Care Demonstration (ACD). As of today, we have over 23,000 ABA providers available to support our 10,540-plus TRICARE beneficiaries receiving ABA services. Another 1,036 providers have joined the TRICARE provider network since the revised rates were announced on December 1, 2015.

This reimbursement rate calculation approach is fair and competitive. The adopted rate calculation process ensures: establishment of ABA rates based on external studies; a consistent and fair calculation process; an annual review of the rates like

all other TRICARE rates (current rates have not changed in almost 8 years); an approach that approximates future Medicare rates, and rates adjusted for the 89 geographic areas recognized by Medicare (which recognizes both the high-cost areas and more rural areas). This change has already proven to benefit some providers as the original rates posted on December 1, 2015, were readjusted in March 2016 based on 11 more states adopting or adjusting their rates. It is important to remember that TRICARE will, by statute, immediately adopt the Medicare rates when they are established. Our process best “predicts” what Medicare rates would be if they covered ABA services.

We remain confident the rates are very competitive, especially considering the TRICARE benefit is one of the best in the Nation. That is especially true since providers never have to collect a co-payment, deductible, or any other payment from Active Duty families, who have 100% coverage. Our TRICARE beneficiaries, to include our retired beneficiaries, do not have to make a decision on whether to forego needed care due to affordability, unlike most Americans who may owe co-payments or a cost-share for each service received. Also, there is no cap on annual or lifetime expenditures, which is a substantial benefit because many ASD beneficiaries use extensive levels of ABA services.

ABA GAPS

Question. Admiral Faison, your ties to San Diego and Orange County families are extensive and go back many years. Your advocacy for special needs families has been exceptional. In previous hearings, you stated that readiness should never be placed at risk because our families cannot access the medical care they need.

Can I get your assurance that you will work with senior leadership to avoid any gaps or serious delays in Applied Behavior Analysis (ABA) care?

Answer. As a Neurodevelopmental Pediatrician, I will fully support these efforts. ABA really doesn't have peer reviewed, long term studies in medical literature. Not many health plans cover this therapy as a basic, essential benefit. However, TRICARE is leading the way in creating a mechanism to cover this intervention.

Navy Medicine will continue to work with senior leadership and the Defense Health Agency (DHA), Health Affairs, and Navy Personnel Command to ensure Navy beneficiaries avoid any gaps or serious delays in ABA therapy. We have representation at the bi-monthly Autism meeting led by the Defense Health Agency (DHA) and have advocated for improving methods to address access to ABA. Access to medical care for our Service and family members remains a priority to safeguard the health and readiness of our force and families.

REIMBURSEMENT RATES

Question. TRICARE reimbursement rates are normally determined by the Medicare Physician Fee Schedule. When codes are not available through the Medicare Fee Schedule, TRICARE typically takes the 80th percentile of billed charges from previous TRICARE claims.

Can you please explain why the typical method of calculating rates was disregarded in your analysis?

Answer. We did not use the 80th percentile because we did not have any “billed rates” from our providers. When our demonstration began, we publicized our rates as \$125.00/\$75.00/\$50.00, because these are how the providers billed.

Question. Can you provide explanation why retaining current rates was not considered in your analysis?

Answer. The current rates were arbitrarily set in 2008. Under that demonstration program, Applied Behavior Analysis (ABA) was an educational benefit, not a medical benefit. Those rates were based on the limited data available at that time and continued as we implemented the Comprehensive Autism Care Demonstration, but were never intended to remain unchanged since they are not supportable by law.

TRICARE reimbursement rates are required, by law, to mirror Medicare reimbursement rates. At this time, however, Medicare does not have established reimbursement rates for ABA services. When Medicare establishes rates for ABA services, TRICARE will adopt those rates.

In order for TRICARE to provide comparable reimbursement rates, despite the lack of Medicare reimbursement rates, the Department contracted for two external studies to help establish appropriate reimbursement rates for ABA services. We selected a rate calculation model that best predicts what Medicare rates would have been if they had covered ABA services. The model is based on the statewide Medicaid rates across the country, which we verified with each State Medicaid office, and adjusted to reflect the difference between the Medicare and Medicaid rates paid for the three highest-volume individual mental health service codes.

This reimbursement rate calculation approach is most fair to all providers. The adopted rate calculation process ensures: establishment of ABA rates based on external studies, a consistent and fair calculation process, an annual review of the rates like all other TRICARE rates (current rates have not changed in almost 8 years), an approach that approximates future Medicare rates, and rates adjusted for the 89 geographic areas recognized by Medicare (which recognizes both the high-cost areas and more rural areas). This change has already proven to benefit some providers as the original rates posted on December 1, 2015, were adjusted in March 2016 based on 11 more states adopting or adjusting their rates. This adjustment has increased the rates in several areas.

We remain confident the rates are very competitive: especially considering the TRICARE benefit is one of the best in the nation. That is especially true since providers never have to collect a co-payment, deductible, or any other payment from Active Duty families, who have 100% coverage. Our TRICARE beneficiaries, to include our retired beneficiaries, do not have to make a decision on whether to forego needed care due to affordability, unlike most Americans who may owe co-payments or a cost-share for each service received. Also, unlike many commercial and Medicaid plans, there is no cap on annual or lifetime expenditures, which is a substantial benefit because many ASD beneficiaries use extensive levels of ABA services.

RATE CUTS

Question. The House and Senate have been very critical of the methods used to calculate the final TRICARE rates. It is my understanding the final TRICARE rates are based on an average of state Medicaid rates plus a certain mark up and do not reflect the effect commercial insurance rates have on the market.

Given the significant expansion of ABA (Applied Behavior Analysis) coverage under FEHB, state regulated plans, and self-funded plans for our civilian neighbors and federal workers, please explain why your final rates excluded commercial insurance rates in its analysis?

Answer. TRICARE reimbursement rates are required, by law, to mirror Medicare reimbursement rates. The rate calculation options presented included an option based on commercial rates, but the commercial rates were not considered to be the best “predictor” of the rates Medicare will eventually set for ABA services.

Since the commercial rates are proprietary as negotiated with individual providers, it is extremely difficult to accurately identify rates for each of the geographic localities and states specific to the four provider types and billing codes used by TRICARE. The national database used when reviewing commercial rates, for example, does not provide reliable data for the four ABA provider types. This results in understating rates for doctoral and master’s-level providers and overstating rates for the bachelor’s-level and technicians (high school graduates). Another concern is the benefits provided by the commercial plans across the Nation are not consistent, with some states still not mandating coverage, and other states allowing benefit caps either by dollar amount paid or number of visits. These variations in coverage make comparisons with commercial rates even more difficult. FEHB plans are not required to cover ABA services until 2017.

The reimbursement rate calculation approach being used by TRICARE is most fair to all providers. The adopted rate calculation process ensures: establishment of ABA rates based on external studies, a consistent and fair calculation process, an annual review of the rates like all other TRICARE rates (current rates have not changed in almost 8 years), an approach that approximates future Medicare rates, and rates adjusted for the 89 geographic areas recognized by Medicare (which recognizes both the high-cost areas and more rural areas). This change has already proven to benefit some providers as the original rates posted on December 1, 2015, were adjusted in March 2016 based on 11 more states adopting or adjusting their rates, leading to increased rates in some geographic areas.

Question. Did your analysis consider the universal access challenges under Medicaid when determining the final rates? Do you know why Medicaid has such widespread access issues?

Answer. The Medicaid rates, which we confirmed with each State Medicaid office, were used to create the National Rate needed to calculate the TRICARE rates for each of the localities recognized by Medicare. On average, the Medicare rates are about 22% higher than Medicaid rates for a sample of the three highest-volume individual mental health service codes. The National Rate calculated was based on this 22% difference, and was used because it was determined to be the best “predictor” of what Medicare rates would have been if they had covered applied behavior analysis (ABA) services. The rates were then adjusted using the locality factors established by Medicare to recognize the differences in the cost-of-living between the

larger metropolitan areas and the more rural areas. TRICARE rates are required, by law, to mirror Medicare reimbursement rates. When Medicare establishes rates for ABA services, TRICARE will adopt those rates.

Our TRICARE beneficiaries do not have the same access problems as children using Medicaid. The TRICARE benefit is much better with no annual or lifetime cap on services, the networks are larger and military families pose no financial risk due to the low out-of-pocket expenses. Active Duty families pay no out-of-pocket costs in TRICARE Prime and retirees pay a modest co-payment for most services and are protected by the annual catastrophic cap. We currently have over 23,000 providers available for the 10,541 TRICARE beneficiaries receiving ABA services. Another 1,036 providers have joined the network since the 2016 Reimbursement Rates were initially posted on December 1, 2015.

This reimbursement rate calculation approach is most fair to all providers. The adopted rate calculation process ensures: establishment of ABA rates based on external studies, a consistent and fair calculation process, an annual review of the rates like all other TRICARE rates (current rates have not changed in almost 8 years), an approach that approximates future Medicare rates, and rates adjusted for the 89 geographic areas recognized by Medicare (which recognizes both the high-cost areas and more rural areas). This change has already proven to benefit some providers as the original rates posted on December 1, 2015, were adjusted in March 2016 based on 11 more states adopting or adjusting their rates.

Question. Are the savings from the ABA rate cuts reflected in your FY 17 budget? If not, where do you propose the cost savings, gained at the expense of disabled children, be reallocated?

Answer. Implementing the 2016 Reimbursement Rates will result in minimal actual savings, if any, as the number of children using the autism care benefit is increasing. This, combined with the generous benefit which has no age limits, no service delivery limits, no dollar limits, and protection of the catastrophic cap, will likely consume any potential reduction in cost. No savings were booked in the FY 2017 budget.

In Calendar Year (CY) 2015, the TRICARE expenditure for ABA services was \$211.0 million. We estimate the CY 2015 TRICARE expenditures for ABA services would have been \$187.0 million if the new rates had been in place at that time. Those CY 2015 expenditures were based on the 10,541 beneficiaries currently receiving ABA services, but that number is gradually increasing every year. By comparison, there were 5,149 beneficiaries using ABA services in 2011.

This reimbursement rate calculation approach is most fair to all providers. The adopted rate calculation process ensures:

- (1) Establishment of ABA rates based on two external studies;
- (2) A consistent and fair calculation process;
- (3) An annual review of the rates like all other TRICARE rates (current rates have not changed in almost 8 years);
- (4) An approach that approximates future Medicare rates; and,
- (5) Rates adjusted for the 89 geographic areas recognized by Medicare (recognizes the high-cost areas and more rural areas).

This change has already proven to benefit some providers as the original rates posted on December 1, 2015, were adjusted in March 2016 based on 11 more states adopting or adjusting their rates.

In addition, we do not anticipate the change in rates will have a negative impact on access. TRICARE is a national leader in ensuring high quality care for our beneficiaries with autism spectrum disorder, requiring certification of all autism providers and working to develop outcome measures of quality.

[CLERK'S NOTE.—End of questions submitted by Mr. Calvert. Questions submitted by Mr. Cole and the answers thereto follow:]

TRICARE

Question. TRICARE has proposed making a substantial reduction to reimbursement rates for applied behavior analysis (ABA) services for the children of TRICARE beneficiaries who have been diagnosed with autism spectrum disorder (ASD). There are as many as 26,000 children diagnosed with ASD among our active duty and military retirees who qualify for TRICARE benefits, so access to ABA services affects a significant number of TRICARE families.

Answer. The TRICARE network of providers is robust with over 23,000 providers and another 1,036 added since the rates were posted on December 1, 2015. However, there are some areas in the country with a limited number of providers, similar to other specialties, whether the child has commercial insurance, Medicaid, or

TRICARE. Our three Regional Contractors are continuously working to recruit new ABA providers for underserved areas to improve access. For example, the Regional Contractors have successfully recruited additional providers to Ft. Leonard Wood, MO; Luke Air Force Base, AZ; Southern California; the Gulf Coast (Biloxi, MS, to Tampa, FL); Ft. Campbell, KY, and many other locations, which benefits all children in the community, not just those with TRICARE.

The Regional Contractors will always use the network providers whenever possible to enhance the relationship with our provider network partners and be the most cost efficient. However, if a network provider is not available, the Regional Contractors will arrange for care with non-network providers until a network provider is available. This is the same process used to locate providers for all TRICARE Prime enrollees needing a specific provider of any type. The Contractors will also assist TRICARE Standard users with locating participating providers.

While our contractors deserve a lot of credit for their recruitment efforts, another factor contributing to our robust ABA provider network is that the TRICARE benefit is one of the best in the Nation. That is especially true since providers never have to collect a co-payment, deductible, or any other payment from Active Duty families, who have 100% coverage. Our TRICARE beneficiaries, to include our retired beneficiaries, do not have to make a decision on whether to forego needed care due to affordability, unlike most Americans who may owe co-payments or cost-shares for each service received. Also, there is no cap on annual or lifetime expenditures which is a substantial benefit because many ASD beneficiaries use extensive levels of ABA services.

Most importantly, please know that we are committed to ensuring that every military child with a diagnosis of ASD has access to the care they need, including ABA services.

COMPREHENSIVE AUTISM CARE DEMONSTRATION

Question. As you know, DoD initiated the “Department of Defense Comprehensive Autism Care Demonstration” in July of 2014 which is to extend to December 31, 2018. Among the objectives of the Demonstration is “[to] develop more efficient and appropriate means of increasing access and delivery of ABA services”. I am concerned that there are significant portions of Oklahoma where there are absolutely no ABA providers available for families located at military installations—even at the current reimbursement rates—so how does cutting rates solve that problem? Could you comment on these concerns?

Answer. To our knowledge, no beneficiaries in Oklahoma have had problems with securing care. While there are a limited number of ABA providers in the Lawton, OK, area regardless of the insurance being used (commercial, Medicaid, or TRICARE), the TRICARE Regional Contractor has successfully placed all of the TRICARE beneficiaries in that area with ABA providers. TRICARE allows use of network providers and, when necessary, our Regional Contractors will arrange for care with non-network providers until a network provider is available. This is the same process used to locate providers for all TRICARE Prime enrollees needing a specific provider of any type.

Today, there are over 23,000 ABA providers in TRICARE and we have added 1,036 since the rates were posted on Dec. 1, 2015. The current rates were set in 2008, under a previous demonstration program, to enhance access to services for active duty families as an educational benefit, not a medical benefit. When the Comprehensive Autism Care Demonstration was first implemented in 2014, a new reimbursement rate for one-on-one services provided by master’s level and above providers was proposed. However, that rate change was put into abeyance pending the results of a nationwide review of all reimbursement rates based on feedback from autism stakeholders. Establishing the revised rates, based on two external studies, and incorporating the ABA rates into the current TRICARE rate calculation process, ensures that the ABA rates are not frozen for another eight-year period. The rates will be reviewed annually, adjusted as appropriate like all other TRICARE rates, and released with the CHAMPUS Maximum Allowable Charge rates every Spring.

When Medicare establishes rates for the eight ABA billing codes covered, those rates will be immediately adopted, as required by law.

Question. If the decision is made that TRICARE will monitor rate changes carefully and if reductions in access in particular locations are a fact, will rates return to current levels? If a provider leaves a market, the rates would need to be raised to substantially higher levels than they were originally because of the costs associated with rebuilding service capacity in a market, especially when TRICARE is requiring a new certification requirement for behavior therapists. Have these impacts

been considered if the decision is to “monitor” rate changes? Have these cost implications been considered when determining if cuts save money over the long-term?

Answer. Most importantly, please know that we are committed to ensuring every military child with a diagnosis of Autism Spectrum Disorder (ASD) has access to the care they need, including applied behavior analysis (ABA). The TRICARE Regional Contractors will always use the network providers whenever possible to enhance that relationship with our provider network partners and be most cost efficient. However, if a network provider is not available, the Regional Contractors will arrange for care with non-network providers until a network provider is available. This is the same process used to locate providers for all TRICARE Prime enrollees needing a specific provider of any type. The Contractors will also assist TRICARE Standard users with locating participating providers. We do not anticipate having to make rate adjustments for a specific area.

One of the objectives of the Comprehensive Autism Care Demonstration (ACD) “is to analyze, evaluate, and compare the quality, efficiency, convenience and cost effectiveness of those autism-related services that do not constitute proven medical care provided under the medical benefit coverage requirements that govern the TRICARE Basic Program.” The primary intent of the 2016 reimbursement rates is to align the ABA reimbursement rate methodology with that used annually for all other TRICARE rates generally, to include locality adjustments to recognize the high-cost areas versus more rural areas, while ensuring excellent access and very competitive rates. This action results in the rates being reviewed and appropriately adjusted each year, like all other TRICARE rates, and not frozen for another almost 8-year period. We chose the calculation process determined to be the best “predictor” of what Medicare rates would have been if they had covered ABA services since, by statute, TRICARE reimbursement rates mirror Medicare rates.

This approach to calculating the reimbursement rates is most fair to all providers. The adopted rate calculation process ensures: establishment of ABA rates based on external studies, a consistent and fair calculation process, an annual review of the rates (like all other TRICARE rates), an approach that approximates future Medicare rates, and rates adjusted for the 89 geographic areas recognized by Medicare (which recognizes both the high-cost areas and more rural areas).

This change has already proven to benefit some providers, as the original rates posted on December 1, 2015, were adjusted in March 2016 based on 11 more states adopting or adjusting their rates.

The certification for Behavior Technicians (BTs) was implemented at the outset of the ACD. However, the implementation date for legacy BTs, those hired before January 1, 2016, has been extended two times due to the certifying bodies not being able to manage the influx of new providers and providers refusing to obtain certification. BT certification was also discussed at multiple meetings with providers and included in our question and answer documents since October 2014. BTs are providing services to our military children and are the only TRICARE health care providers today who are not licensed or certified. Certification is an important quality management requirement, ensuring beneficiaries access to BTs who have successfully completed background checks and are trained in ABA principles, first aid techniques, and supervised by board certified behavioral analysts. Obtaining certification is no different than what is required of all other medical professionals reimbursed for providing health care services.

Although I do not anticipate any loss of access to ABA services, we stand ready to respond quickly to ensure every child has an ABA provider.

[CLERK’S NOTE.—End of questions submitted by Mr. Cole. Questions submitted by Mr. Aderholt and the answers thereto follow:]

COMPOUND PHARMACEUTICALS

Question. In reaction to out of control compound pharmaceutical costs in 2015, the DHA took steps to dramatically reduce spending, but I believe the pendulum has swung too far in the opposite direction. Now we have many service members and their families without access to the medications that could dramatically increase their quality of life, as they are unable to take prescribed medications in their standard form and composition. What can you do to expand access to compound medications, which are easily available under many health plans for civilians, while at the same time controlling costs and protecting the safety of our military families?

Answer. The Department continues to maintain access to safe, effective, and medically necessary compound drugs that our beneficiaries need for their care. The TRICARE compound screening process provides more access than many civilian plans by offering a Prior Authorization (PA) review option. The screening and PA

criteria approved by the Department of Defense (DoD) Pharmacy and Therapeutics (P&T) Committee process, including the public comment opportunity, guides all DHA actions regarding compounds. The P&T Committee continuously monitors access, ingredient, and cost data for compound prescriptions to determine the need for future adjustments.

Through our ongoing monitoring process, the volume and the cost of compound prescriptions has returned to historic norms. Prior to the dramatic increase (2014–15) in compound prescription use and cost spurred by fraudulent activity, the DoD filled an average of 23,000 compound prescriptions per month (2012). The DoD has returned to this rate of use, as closely approximated by the 21,700 compound prescriptions now filled per month (March 2016).

The TRICARE PA process now in place for compounded prescriptions accomplishes two important goals. First, the PA process enables beneficiaries access to safe, effective, and appropriate prescriptions that are initially screened out, in coordination with their doctor and pharmacy with submission of clinical evidence. The PA process generally takes 3–5 days to receive a decision. Beneficiaries who need compound prescriptions can receive them. Second, the PA screening process is a major contributor to controlling overall compound costs by reducing the level of attempted fraud in the program.

DUCHENNE MUSCULAR DYSTROPHY

Question. It is my understanding that a great many service-related injuries and disorders are treated with corticosteroids, which have terrible side effects. Through peer-reviewed Duchenne Muscular Dystrophy research, the Department of Defense has substantially funded development of a drug that would enhance the anti-inflammatory aspects of corticosteroids, while minimizing side effects, such as bone weakening. Are you aware of this research, and the implications for muscle injury and repair, and where is the DoD headed in this research? What work could be initiated or expanded if funds beyond the FY 16 amount were available?

Answer. The research in this area was supported through several grants from the DoD in FY04, FY08, and FY10 with the bulk of the work supported by the FY08 and FY10 grants. The DoD supported some of the development and characterization of non-hormonal steroid ligands that were shown to enhance the anti-inflammatory aspects of corticosteroids while minimizing their harsh side effects such as growth stunting, immunotoxicity, and bone weakening. A lead compound was identified, VBP15, and the DoD then funded some of the preclinical studies necessary to support an application to the FDA for first in-human clinical trials. The drug VBP15 provides efficacy through anti-inflammatory signaling and membrane-stabilizing pathways, protecting cells from injury and promoting membrane repair. VBP15 has also been co-developed by the company Reveragen. An Investigational New Drug application for VBP15 was filed by Reveragen in December 2014. Phase 1 clinical trials have begun in adult volunteers and have been funded through public-private partnerships. Results are pending from the Phase 1 clinical trials.

Continued funding beyond FY16 would allow further support of clinical research. With a successful Phase 1 study of VBP15 it would then be moved on to Phase 2a studies in 4–7 yr old steroid-naïve Duchenne Muscular Dystrophy boys (patients that have not taken prednisone or deflazacort). The Phase 2a studies would likely include the option for extension studies (long-term treatment with VBP15). Additional studies could also be initiated to further explore the effects of this drug on reducing cardiac hypertrophy and fibrosis that is observed with standard corticosteroid treatment.

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Answer. The Air Force Medical Service is aware of this research. Air Force representatives are actively engaged in the Congressional Directed Medical Research Programs, however, there was no appropriation for Duchenne Muscular Dystrophy in Fiscal Year 2016.

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Answer. Duchenne Muscular Dystrophy (DMD) is one of the more common inherited myopathies resulting in progressive muscle weakness. DMD is caused by mutations in the dystrophin gene that is located on the X chromosome. Dystrophin is a structural protein in muscles and loss of this protein leads to early muscle degeneration. DMD affects approximately 10,000 individuals in the United States and 40,000 individuals worldwide. It clinically manifests in young toddlers and progresses over time. DMD leads to loss of the ability to ambulate in most children by age 12 and eventual loss of the ability to breathe independently. It can also affect the muscles of the heart leading to cardiomyopathy. Death typically occurs by age 30.

The mainstay of treatment is glucocorticoids, which have shown to slow progression of symptoms and improve function, but often result in significant side effects to include: weight gain, growth restriction, cataract formation, irritability, bone demineralization and unfortunately, at times exacerbation of weakness. Accumulating evidence suggests that steroid side effects are mediated by drug-receptor interactions, but efficacy is mediated by non-receptor mechanisms.

Delta 9,11 derivatives of steroids were developed to retain efficacy, but eliminate side effects. VBP15 is an experimental drug which has been shown to be effective in treating mice (not humans) in a clinical trial. There are several proposed mechanisms of action of VBP15 which may prove to be effective but basically, it may prevent muscle cell destruction resulting in some arrest of the disease progression. Additionally, it does not come with the same negative side effect profile of steroids. VBP15 may be promising, but to date efficacy has only been demonstrated in Muscular Dystrophy and asthma mouse models.

Formal Research Programs within the DOD's Congressionally Directed Medical Research Program Office (CDMRP) are administered by the U.S. Army Medical Research and Materiel Command (USAMRMC).

Question. New drugs being investigated for use against Duchenne Muscular Dystrophy often give hope to Service members with other service-related injuries, such as degenerative arthritis, and noise-induced hearing loss. Does the Department place a premium on research that serves to treat multiple conditions that affect the military?

Answer. Yes, the Department invests in research and development efforts toward developing medical solutions and technologies to address single or several conditions

that affect Service members, family members, and beneficiaries. Medical solutions that may be effectively and efficiently implemented to treat or prevent a multitude of illnesses or injuries are highly valued.

To focus Congressional Special Interest (CSI) programs, the Congressionally Directed Medical Research Programs holds a stakeholders' meeting for any new CSI program. The purpose of this meeting is to survey the research landscape and identify gaps in both the scientific and consumer interest areas. Recommendations from the stakeholders' meeting facilitate the initial direction and vision for new programs, which are revisited and redefined annually at vision setting meetings to discuss changes in landscape of the disease, condition, or injury; identify scientific and clinical research gaps; and develop a strategy to fill these gaps. Program announcements and funding opportunities resulting from these meetings represent strategies to fill the gaps in areas of scientific research for the program year.

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Answer. Yes, the Air Force focuses on programs and research that have multiple uses across disciplines and across beneficiaries which have military and civilian implications. Examples of programs directed toward these effects are: Occupational Hazards, Regenerative Medicine, Restorative Medicine and Reconstruction, Human Performance Optimization, and the Air Force Military Health and Resilience Program.

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Answer. Per the National Center for Advancing Translational Sciences, National Institutes of Health, "Pharmacokinetics/absorption, distribution, metabolism and excretion studies have been completed and VBP15 shows excellent features."¹ The current research on the VBP15, although showing promising efficacy, has only been tested on Muscular Dystrophy and asthma mouse models. There are other experimental treatments being studied to target Duchenne Muscular Dystrophy, including gene therapies, but these therapies are all in the investigational stages and not yet standards of care.

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Duchenne Muscular Dystrophy, refer specifically to the Duchenne Muscular Dystrophy Research Program of the CDMRP and are therefore most appropriately answered by the Army/CDMRP.

¹ National Institutes of Health. (2015, June 02). *National Center for Advancing Translational Science*. Retrieved April 14, 2016, from U.S. Department of Health & Human Services: <https://ncats.nih.gov/trnd/projects/complete/vbp15-duchenne-muscular-dystrophy>.

PEER-EVALUATED RESEARCH PROGRAMS

Question. What medical research gaps do you see in the Department of Defense, and what research fields could be expanded or introduced in order to benefit our service members and their families?

Answer. We do not see any specific research gap at this time. If there are any requirements to expand this program, we will submit our request through the President's Budget Request.

Question. What medical research gaps do you see in the Department of Defense, and what research fields could be expanded or introduced in order to benefit our service members and their families?

Answer. The Defense Health Program RDT&E core medical research programs are fully funded year to year at the levels requested in the President's Budget Request, and the Department does not request congressional special interest funding.

The Chief of Staff of the Army's priority is "Readiness." We have not identified any Congressional Special Interest gaps at this time. However, three areas of military medical research that could be expanded are: infectious disease research, trauma research and medical simulations for training research.

Question. What medical research gaps do you see in the Department of Defense, and what research fields could be expanded or introduced in order to benefit our service members and their families?

Answer. We have several research focus areas. Under our Operational Medicine focus area, also known as In-Garrison Care, we have identified research gaps that benefit service members and their families in the areas of preventing wound infection and increasing trauma survivability.

Question. What medical research gaps do you see in the Department of Defense, and what research fields could be expanded or introduced in order to benefit our service members and their families?

Answer. The Peer Reviewed Medical Research Program of the Congressional Directed Medical Research Program (CDMRP) is most appropriately answered by the Army since the U.S. Army Medical Research and Materiel Command (USAMRMC) administers the program. Navy Medicine does not conduct or manage any "peer-evaluated" or peer-reviewed medical research programs.

[CLERK'S NOTE.—End of questions submitted by Mr. Aderholt. Questions submitted by Mr. Israel and the answers thereto follow:]

MINDFULNESS PRACTICES

Question. Does the Department of Defense accept that practicing mindfulness or meditation could help make our service members more resilient by reducing stress and improving their overall mental health? What efforts is the Defense Health Agency making to further explore mindfulness practices and to operationalize them for use in the operating forces?

Answer. The DoD sees the value in mindfulness and/or meditation in improving mental health and reducing stress of Service members. The U.S. Army Medical Research and Materiel Command (MRMC) previously funded four specific studies to examine mindfulness and/or meditation. These studies included: using mindfulness skills to improve quality of life and wellness; mindfulness and self-compassion meditation for combating Post-traumatic Stress Disorder (PTSD); optimizing delivery of mindfulness-based military training in Army Infantry Units; and, examining neurobehavioral effects of Army Resilience Training and mindfulness-based military training. Furthermore, many mental health treatment programs have already incorporated the use of mindfulness and/or meditation as complementary and alternative practices to enhance and augment recovery.

While the results of these initial studies have been promising, the MRMC is currently funding six studies on mindfulness and one on meditation that could provide additional data to support the use of mindfulness practices with the operating forces. For example, these studies include a longitudinal study conducted by the Walter Reed Army Institute of Research examining the effectiveness of resilience training for personnel, which includes elements of mindfulness training. Another ongoing study is a randomized clinical trial comparing Transcendental Meditation as a novel PTSD therapy in comparison to an established, gold standard behavioral PTSD treatment, Prolonged Exposure therapy. The objectives for these six studies are broad and will further our knowledge about the effectiveness of mindfulness and meditation in mental health treatment.

NERVOUS SYSTEM MAPPING

Question. Mapping the human nervous system is cutting edge research, and the science is quite technical. What resources has DARPA dedicated to ElectRx to address this effort? How is DARPA collaborating with public and private partners, including academia and medical device and pharmaceutical companies?

Answer. While Defense Health Agency is supportive of nervous system mapping research, we do not have the information. DARPA is the knowledgeable office to respond.

MULTI-DRUG RESISTANT PATHOGENS

Question. The rise in infections caused by multi drug resistant bacteria pose a serious threat and great challenge to the care of wounded military personnel immediately following injury and in recovery. An emerging solution is bacteriophage (or “phage”) therapy, including engineered phage, which relies on viruses that specifically kill bacteria and do not harm human cells. Please describe what the agency is doing to investigate phage therapy to address the real and growing problem of multi drug resistant pathogens.

Answer. The Department funds several nontraditional approaches to the treatment and prevention of infections.

Bacteriophage target and kill bacteria specifically regardless of their resistance to antibiotics. The Military Infectious Diseases Research Program is overseeing a working group to explore military unique applications for bacteriophage therapy. In coordination with private industry, the Department is conducting an initial safety study with a topically-applied bacteriophage that is specific for Staphylococcal bacteria. Additional efforts at the Walter Reed Army Institute of Research and the Naval Medical Research Center seek to isolate and characterize phage targeting of other types of bacteria.

ARMY’S COMPREHENSIVE PAIN MANAGEMENT PROGRAM

Question. Please expand on the efforts of the Army’s interdisciplinary pain management centers and their use of yoga, mindfulness and other techniques to treat combat pain. In addition, please expand on the Army’s various mindfulness research projects. Are these projects having a noticeable effect and are they well received by those participating in the programs? Are these projects yielding results that lend themselves to expanded use within the Army?

Answer. The Army’s Comprehensive Pain Management Program (CPMP) was developed in response to the 2010 Pain Management Task Force, which recommended the development of comprehensive pain care clinics that offer alternatives to opioid therapy. There are eight Interdisciplinary Pain Management Centers (IPMC) and four IPMC (light) that provide comprehensive and integrative, complimentary, pain care. The IPMCs align strategically with troop concentrations within the Army. The IPMCs provide traditional medical and interventional pain care, occupational and physical therapy, chiropractic, nutritional and behavioral health care. In addition to these modalities, the IPMCs provide complimentary integrative medicine to include acupuncture, medical massage, movement therapy (yoga/Tai Chi), and biofeedback. Some IPMCs are also investigating the use of other complimentary therapies to include aqua-therapy.

The CPMP is currently implementing the Pain Assessment Screening Tool and Outcomes Registry program that tracks individual patient and consolidated clinical outcomes to better support provider clinical decision making. Since the implementation of the CPMP and alternatives to opioid therapy, the Army has seen a reduction of opioid use from 6.03% in 2006 to 2.98% in 2016 in all beneficiaries.

The Army has fully implemented the IPMC concept and is working with the Defense Veterans Center for Integrative Pain Management to enhance primary care pain management, through the use of the Extension for Community Healthcare Outcomes, which enables the IPMC teams to provide pain care tele-mentoring to provider teams in outlying healthcare facilities.

Mindfulness has been indicated as an adjunct to treatment for PTSD and anxiety disorders but is not the primary mode of treatment. Use of mindfulness is typically determined by the individual provider and dependent of availability of such a resource. However, Army Medicine has executed its “Move to Health” course in 15 facilities to date which includes teaching mindfulness techniques to providers and healthcare teams. A primary goal of Move to Health is for healthcare teams to take better care of themselves and provides a holistic, proactive, and preventive model of care.

The Walter Reed Army Institute of Research is sponsoring research to investigate how to train troops and spouses to use mindfulness to focus and manage stress in non-clinical settings. One project investigates the effectiveness of train-the-trainer delivery methods for mindfulness training. Like service members, spouses and family members are at risk for cognitive depletion and psychological harm caused by stress of uncertain, cyclical deployments. Mindfulness and compassion training (MCT) may be a method to bolster resilience in military spouses.

RESILIENCY MEDICINE

Question. In February, the Navy hosted a “resiliency medicine” summit which included discussion of the healing effects of meditation, yoga and “compassion” therapy. What were the results of this summit and how will these results affect the Navy’s future resiliency and mindfulness training efforts? Have the Navy and Marine Corps implemented mindfulness practices? If so, how have these programs been received by sailors and Marines? Have there been noticeable results in treating combat stress or other mental health issues with mindfulness or meditation?

Answer. —

Question. What were the results of this summit and how will these results affect the Navy’s future resiliency and mindfulness training efforts?

Answer. There were over 250 attendees for the summit in person, with several others in attendance virtually. Results from the post-summit surveys are being tallied, but initial feedback has been positive. During the 2 day summit, providers, researchers, and leadership saw presentations on scientifically based, mind-body interventions resulting in improved knowledge and identification of new best practices.

Question. Have the Navy and Marine Corps implemented mindfulness practices?

Answer. The Mind Body Medicine (MBM) program for patients and staff at the Naval Medical Center in San Diego (NMCSD) was developed to help participants gain better control over their stress response, improve resiliency to new adversities, and optimize the mind and body to aid in recovery.

The MBM program at NMCSD, in collaboration with the Benson Henry Institute for Mind Body Medicine at Massachusetts General Hospital, developed an innovative solution to integrate self-care MBM practice into the military health care delivery system and operational forces. The program includes structured courses to learn and foster self-care skills, a web portal for regular access to meditation resources, experiential groups to learn from those more seasoned in the practice, and training opportunities to develop program facilitators. Participants attend a weekly two hour MBM group session for six weeks. Topics covered in sessions include meditation techniques, cognitive restructuring, yoga, qigong, sleep hygiene and developing social connections. Quantitative data is being collected on program utilization, patient satisfaction, acquisition of knowledge and skills, and various validated self-report functional, psychological, and quality of life measures.

Assessments are administered prior to and upon completion of the program.

Naval Center for Combat & Operational Stress Control (NCCOSC) has implemented a Resilience Train-the-Trainer Program for the Wounded Warrior Regiment. A program has been implemented for Wounded Warrior Battalion (WWBn) West A & B Companies, and plans for implementation for WWBn East are expected to occur in the near future. Marine Corps WWBn Section Leaders are trained as Instructor Trainers, and in turn provide resilience training and skill-building for Recovering Service Members (RSMs).

The resilience program includes training on the concept of resilience, values, self-competence, optimism, flexible thinking, self-control (mind-body techniques), positive coping, and self-control. A limited scope program evaluation was initiated with the focus on improving general resilience, well-being, and coping. We will initiate a more robust program evaluation for effectiveness over the next year beginning 16 May 2016.

Question. If so, how have these programs been received by Sailors and Marines?

Answer. 228 personnel from multiple military treatment and operational facilities have been trained in the MBM model as program facilitators leading to the launch of 19 separate MBM programs treating various patient and operational populations. The initial impression of these programs is that they have been well received; however, the data we have gathered is still in the process of being analyzed.

Versions of the MBM program have been implemented at the following NMCSD locations:

- Naval Medical Center San Diego (Mental Health, Pain, Expecting Mothers, Infections Disease, Neurology, Internal Medicine, Adolescents)
- Naval Training Center (Mental Health)
- Miramar (Mental Health)

- East Lake (Mental Health)
- 32nd Street (Fleet Mental Health)

Question. Have there been noticeable results in treating combat stress or other mental health issues with mindfulness or meditation?

Answer. As of October 2015, 85 mental healthcare patients, 64 pain patients, and 31 hospital staff members participated in MBM and showed statistically significant improvements on measures of sleep quality, anxiety, depression, and quality of life upon completion of the program. Less significant statistical analysis for the impact on opioid therapy; however, anecdotal responses stated that they were able to manage their pain using less medication after the training.

[CLERK'S NOTE.—End of questions submitted by Mr. Israel. Questions submitted by Mr. Ruppertsberger and the answers thereto follow:]

PEER REVIEW SPINAL CORD INJURY RESEARCH PROGRAM

Question. General West, my question is regarding the Peer Reviewed Spinal Cord Injury Research Program. Last year, this committee expressed concern that not enough funding is being dedicated to spinal cord research projects that are at the advanced research or translational stages, and that there should be a focus on advanced projects which will potentially yield medical breakthroughs more quickly.

What actions have been taken in response to the committee's concerns? Has there been a shift in the strategy of the Peer Reviewed Spinal Cord Injury Research Program to support the larger, collaborative projects focused on finding a cure for paralysis?

Answer. The Spinal Cord Injury Research Program (SCIRP) has increased its emphasis on research that offers the potential for more near-term impact on the lives of individuals with spinal cord injury by increasing its investment in clinical trials and translational research studies. From Fiscal Year (FY) 00–14, the program's investment in clinical trials was 36% of appropriated research funds. In the FY15 awards, which were announced this month, investment in clinical trials increased to an estimated 51% with an additional 29% going to translational research projects.

The FY16 program announcements have not yet been released, but the investment strategy is to continue this approach with approximately 71% of the appropriated research dollars intended for clinical and translational research.

[CLERK'S NOTE.—End of questions submitted by Mr. Ruppertsberger. Questions submitted by Ms. Kaptur and the answers thereto follow:]

WATER CONTAMINATION RESEARCH

Question. A 2014 report by the CDC revealed elevated HRs at Camp Lejeune for several causes of death including cancers of the kidney, liver, esophagus, cervix, multiple myeloma, Hodgkin lymphoma and ALS. CIs were wide for most HRs. Because <6% of the cohort had died, long-term follow-up would be necessary to comprehensively assess effects of drinking water exposures at the base. Further, the VA acknowledges the potential for problems, creating a special eligibility for affected service members.

Has the military conducted its own studies of the effects of the Camp Lejeune contaminated drinking water? If so, what are your results?

Answer. The Department of Defense has not conducted its own studies on the health effects of the Camp Lejeune contaminated drinking water. However, from 1991 to present, the Department of the Navy has funded several Agency for Toxic Substances and Disease Registry (of the Centers for Disease Control and Prevention) health effects' studies and other public health activities associated with the water contamination at Camp Lejeune. Some of these long-term health studies are complete and some are ongoing.

Question. Are there any plans to conduct a long-term study on the effects of the contamination?

Answer. The Department of Defense does not plan to conduct a long-term health study on the health effects of the water contamination. However, from 1991 to present, the Department of the Navy has funded several Agency for Toxic Substances and Disease Registry (of the Centers for Disease Control and Prevention) health effects' studies and other public health activities associated with the water contamination at Camp Lejeune. Some of these long-term health studies are complete and some are ongoing.

Question. Has there been any effort to relate these findings to similar situations across the U.S., particularly the above average rates of Parkinson's and ALS in northern Ohio?

Answer. The Department of Defense (DoD) has not attempted to relate the Camp Lejeune findings to findings of other communities within the United States, nor is the DoD aware of any published scientific literature relating the findings to those in other communities, including ones in northern Ohio.

COMBAT CASUALTY CARE

Question. How much do we spend each year on combat and trauma care research as compared to other medical issues? How can we address this gap?

Answer. In fiscal year 2015, approximately \$69 million is specifically designated for combat and trauma care research, out of the \$654.6 million President's Budget Request for the Defense Health Program Research, Development, Test, and Evaluation (DHP RDT&E) core appropriation. This includes addressing military medical capability gaps in forward surgical and en-route critical care, damage control resuscitation, and neurotrauma. In addition, approximately \$130 million of the \$1 billion FY15 DHP RDT&E Congressional Special Interest (CSIs) appropriations, encompassing several research areas, is being leveraged to support combat and trauma care-relevant research projects that complement the core program research investments.

In addition to the Combat Casualty Care Research Program, the Military Operational Medicine Research Program invests approximately \$16 million of the FY15 DHP RDT&E core funds and executes approximately \$40 million of the FY15 DHP RDT&E CSI funds to support psychological health research to study related sequelae of trauma.

Sustained funding levels and collaboration in combat and trauma care research is essential to continue to address gaps in these areas.

Question. How are you ensuring our warfighters benefit from the latest innovations to obtain the best care possible in theater and en route to medical facilities? What do you recommend we do better?

Answer. After 15 years of war, the Department of Defense (DoD) has demonstrated tremendous gains in analysis of battlefield medical needs, and identification of innovative medical solutions. Chief among these gains is the creation of the Joint Trauma System (JTS), the implementation of the DoD Trauma Registry (DoDTR), and the use of the Joint Capabilities Integration Development System (JCIDS) process. It is challenging to innovate if you cannot describe the clinical care that is unique to deployed medicine. For this reason, the DoD executed several lines of efforts to increase medical innovation in deployed settings. The point of injury (POI) documentation tool, DD Form 1380, Tactical Combat Casualty Care (TCCC) card (June 2014), was updated and a digitized version suitable for an electronic POI documentation was developed. A second impactful development was the creation of the JTS, an organization that focuses on collecting and analyzing battlefield trauma, en route care, and prehospital care. The JTS abstracts data from theater medical records, and other relevant sources, into the DoDTR, and then uses it to make data-driven decisions. This information standardizes care in the deployed setting through development of the DoD's TCCC guidelines. Other formal processes, such as the JCIDS, are leveraged to identify required capabilities, associated gaps, and appropriate suitable, feasible, and acceptable solutions. These efforts enable the DoD to accurately capture needs so that it can inform the acquisition process, and are pivotal to delivering innovation to deployed locations. In coordination with the acquisition process, policy and doctrine are updated, ensuring the new capabilities or products are available at the start of future wars. As one example of joint capability implementation, the Defense Health Agency, Medical Logistics Division, in coordination with the Services, standardized core first aid kit components for Individual First Aid Kits.

Despite these gains, there are aspects of delivering innovation to battlefield medicine that are largely outside of the Department's control, where progress and greater collaboration could be achieved. It is necessary to have an integrated, systematic approach to the development and purchase of the necessary vaccines, drugs, therapies, and diagnostic tools for battlefield use. A formalized effort, in coordination with the Department of Health and Human Services, Biomedical Advanced Research and Development Authority, would enable the DoD to navigate external systems to deliver medical innovation to the battlefield. This interagency collaboration, with the appropriate medical, legal, technical, and policy expertise, could target a process for expedited U.S. Food and Drug Administration (FDA) approval of vaccines, drugs, therapies, and diagnostic tools for battlefield use, such as the expansion of the

FDA's Emergency Use Authorization or modification of investigational new drug use protocols. Improvement of this step in the capability development process would strengthen the DoD's ongoing effort to deliver innovation to deployed medicine.

MEDICAL VENTURE CAPITAL INITIATIVE

Question. DHA has provided information to HASC regarding a Medical Venture Capital Initiative which would create a self-sustaining fund long-term, similar to two other funds previously created by the Army and the CIA.

How could this be a helpful resource for the military medical research efforts?

Answer. The Department relies on external research and development partnerships with educational and commercial industries to utilize their infrastructure, their expertise, and their funding to bring new medical solutions and technologies to the market. The investment of Venture Capital funding facilitates the development, regulatory approval and marketing of medical technologies that will have dual use for both the military and civilian health care communities. This could speed the movement of science into practice and the commercial market.

Venture Capital Initiatives can conduct strategic fundraising through engagement of the philanthropic community and can incorporate innovative philanthropy practices. Innovative philanthropy involves new approaches to funding, such as venture philanthropy (traditional philanthropic resources demanding market-like results), crowdfunding, and prize competitions. Venture Capital Initiatives can receive foundation and corporation fundraising, as well as individual gifts and institutional gifts.

Question. How would it affect the Combat Casualty Care Research Program?

Answer. The investment of Venture Capital funding facilitates the development, regulatory approval and marketing of medical technologies that will have dual use for both the military and civilian health care communities.

Technology objective areas for collaborative efforts utilizing Venture Capital funding are: Combat Casualty Care; Military Infectious Diseases; Military Operational Medicine; Clinical and Rehabilitative Medicine; Medical Chemical, Biological, and Radiological Defense; Advanced Medical Technologies; and Medical Training and Health Information Sciences.

The Department's Combat Casualty Care research and development efforts would benefit by the acceleration of development of technologies that will receive Food and Drug Administration approval and marketing more rapidly. Accelerated development timeframes allow for technologies to be made available for the care of wounded Service members in a shorter timeframe.

Question. What are the benefit and drawbacks to pursuing an investment framework instead of the traditional Grant programs in medical research?

Answer. A benefit of the investment of Venture Capital funding is the acceleration of the development, regulatory approval, and marketing of medical technologies that will have dual use for both the military and civilian health care communities. Accelerated development timeframes allow for technologies to be made available for the care of wounded Service members in a shorter timeframe.

A drawback may be the profit-driven motivation of the Venture Capital community. The Department's mission is not profit driven, it is product driven to deliver needs-based medical solutions and technologies to the battlefield and for the care of wounded Service members. It would not be in the interest of the Department, or Service members, to allow the profitability of investors to have an excessive influence or control in steering military medical research programmatic decisions.

[CLERK'S NOTE.—End of questions submitted by Ms. Kaptur.]

THURSDAY, APRIL 15, 2016.

**UNITED STATES PACIFIC COMMAND AND
UNITED STATES FORCES KOREA**

WITNESSES

ADMIRAL HARRY B. HARRIS, JR., COMMANDER, UNITED STATES PACIFIC COMMAND

GENERAL CURTIS M. SCAPARROTTI, COMMANDER, UNITED NATIONS COMMAND, COMBINED FORCES COMMAND, UNITED STATES FORCES KOREA

OPENING STATEMENT OF CHAIRMAN FRELINGHUYSEN

Mr. FRELINGHUYSEN. The committee will come to order. This morning, the committee will hold a closed hearing on the defense posture of the United States Pacific Command and United States Forces Korea. But, first, I would like to recognize Ms. McCollum for a motion.

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

Mr. FRELINGHUYSEN. So ordered. Thank you, Ms. McCollum.

Today, we are pleased to welcome Admiral Harry B. Harris, Jr., U.S. Navy commander, United States Pacific Command, and General Curtis S. Scaparrotti, commander of United Nations Command, commander of United States-Republic of Korea Combined Forces Command, and commander, United States Forces Korea.

We thank you both for being here this morning and for your many years of dedicated service to our Nation.

Admiral, the committee notes that you have served in many key assignments, and, beginning in May of 2015, you assumed command of the U.S. Pacific Command. Since then, you have been very consistent in speaking out about challenges in the region, specifically China. Thank you for bringing a wealth of knowledge and experience to us this morning about the region. We look forward to your testimony.

General Scaparrotti, welcome back. We also have always appreciated your candid assessments on what is happening on the Korean peninsula. We also understand this may be your last testimony before the committee because you are nominated to be the EUCOM commander. And we know that you will do an incredible job facing the many challenges that Europe is facing these days, and we wish you well. We welcome you back, and we look forward to hearing from you this morning as to what is happening on the Korean peninsula, both in the south and the north.

Gentlemen, we look forward to your testimony and your answers to our questions.

At this time, I would like to ask my distinguished ranking member, Ms. McCollum, who is here pinch-hitting for Mr. Visclosky, if she has any comments that she wishes to make.

REMARKS OF MS. MCCOLLUM

Ms. MCCOLLUM. Well, thank you, Mr. Chairman. And I appreciate you holding this important hearing today and the other hearings that you have had to make us put together the best bill possible for the floor of the House to vote on.

Admiral Harris and General, I would like to welcome you today, and I thank you for the service to your Nation. I thank the staff that is all behind you and the men and women we don't see who work directly under you.

We understand the unique challenges in the Pacific region and truly appreciate your dedication to keeping this region safe. The committee looks forward to hearing from you how we can maintain our important relationships with our allies to ensure the safety and security of the region while managing the North Korea nuclear threat and China's expansion to the South China Sea.

Mr. Chairman, I thank you and the gentlemen again for this hearing.

Mr. FRELINGHUYSEN. Thank you, Ms. McCollum.

Admiral Harris, your full testimony will be put in the record, and if you will proceed.

Welcome to you both.

[The written statements of Admiral Harris and General Scaparrotti follow:]

STATEMENT OF
ADMIRAL HARRY B. HARRIS JR., U.S. NAVY
COMMANDER, U.S. PACIFIC COMMAND
BEFORE THE HOUSE APPROPRIATIONS COMMITTEE DEFENSE SUBCOMMITTEE
ON U.S. PACIFIC COMMAND POSTURE
14 APR 2016

Chairman Frelinghuysen, Congressman Visclosky, and distinguished members of the committee, thank you for the opportunity to appear before you today. This is my first posture assessment since taking command of U.S. Pacific Command (USPACOM) in May 2015. Over the past 11 months, I've had the extraordinary privilege to lead 378,000 Soldiers, Sailors, Airmen, Marines, Coast Guardsmen, and civilians selflessly serving our nation. These dedicated men and women and their families are doing an amazing job, and I'm proud to serve alongside them.

USPACOM protects and defends, in concert with other U.S. Government agencies, the territory of the U.S., its people, and its interests. With allies and partners, USPACOM enhances stability in the Indo-Asia-Pacific region by promoting security cooperation, encouraging peaceful development, responding to contingencies, deterring aggression, and, when necessary, fighting to win. This approach is based on military preparedness, partnership, and presence.

The strategic importance of the Indo-Asia-Pacific region cannot be overstated. Recognition of clear military, economic, and demographic trends inspired President Obama to undertake a "Rebalance" strategy in 2011. The Rebalance, a strategic whole of government effort, guides and reinforces our military efforts, integrating with diplomatic, political, and economic initiatives.

In August of 2015, Secretary of Defense Carter described four elements of the military component of the Asia-Pacific Rebalance:

- 1) investing in future capabilities relevant to the challenges in the Asia-Pacific;
- 2) fielding the right numbers of existing capabilities to the Asia-Pacific;
- 3) adapting our regional force posture; and
- 4) reinforcing alliances and partnerships.

Despite other pressing challenges around the world, and because of the legislative and budgetary support of Congress, we achieved momentum in each element above. I believe we must continue, and even increase, this momentum, as the strategic imperative behind the Rebalance remains valid.

What follows is my assessment of the Indo-Asia-Pacific and USPACOM's part of the Rebalance. I will describe the security challenges and highlight regional opportunities with strategic value. I will discuss the value of U.S. strategic force posture and forward presence to the Rebalance - how it improves our readiness to fight tonight, enhances our ability to reassure allies and partners, and maintain stability. I will then explain how USPACOM strengthens our alliances and builds critical regional partnerships that deliver strategic benefit while enhancing U.S. readiness to protect and defend U.S. interests. Finally, I will highlight critical needs and seek your support for budgetary and legislative actions in the coming weeks and months.

Security Environment

The Indo-Asia-Pacific has been a largely peaceful region for over 70 years, in large part, because of the system of rules and norms established and underpinned by robust U.S. presence and anchored by a series of treaty alliances and bilateral relationships with countries in the region. Regional nations, including and perhaps especially China, have benefited because of the security architecture provided by the U.S. and our allies. The Indo-Asia-Pacific is critically important to U.S. commerce, diplomacy, and security. Estimates predict up to 70 percent of the world's

population will reside in the region by the middle of this century. Within the region are the world's two largest economies after the U.S. (China and Japan), and five of the smallest economies. The region contains the world's most populous nation (China), largest democracy (India), largest Muslim-majority state (Indonesia), and smallest republic (Nauru). It contains seven of the ten largest standing militaries in the world, five nuclear nations, and five of the U.S.' seven mutual defense treaty alliances.

The region's environment, history, cultural and political diversity, and robust military capabilities present dynamic strategic challenges. Self-interested actors challenge the existing international rules-based order that helped underwrite peace and prosperity in the region for over 70 years. North Korea continues its provocative, coercive behavior and weapons development. Chinese coercion, artificial island construction, and militarization in the South China Sea threaten the most fundamental aspect of global prosperity - freedom of navigation. Other challenges include the movement and facilitation of violent extremists to and from the Middle East, transnational criminal activity (including human trafficking and illicit drugs), and an increasingly revanchist and assertive Russia. USPACOM enhances U.S. force posture, presence, and resiliency in the region, modernizing U.S. force capability to ensure forces are ready to fight and win any contingency. USPACOM is working with allies and partners on a bilateral - and increasingly multilateral - basis to address these challenges. Together, we enhance capability and capacity to respond to the range of threats endemic to the region. We are stronger together.

Overview

A number of challenges has emerged over the past year that place stability and security at risk. In July 2015, China largely completed land reclamation at seven sites in the South China Sea and is finishing runways, infrastructure, and systems to militarize what are, in effect, man-made bases, significantly raising regional tensions. China views the South China Sea as a strategic frontline in their quest to dominate East Asia out to the Second Island Chain. I view their thinking as approaching a new "Great Game." Last month, North Korea conducted its fourth nuclear test in ten years and last August, raised tensions with a land-mine attack in the Demilitarized Zone (DMZ). Russia continues modernizing its military forces, homeporting its newest Dolgurukiy-class ballistic missile submarine in Petropavlovsk, and revitalizing its ability to execute long range strategic patrols, highlighted by last July's deployment of Tu-95 Bear bombers near Alaska and California, and last month's bomber flights around Japan. Terrorist attacks in Bangladesh and Indonesia underscore the fact that violent Islamic extremism is a global problem.

While these events threaten the region's peace and prosperity, there was positive progress as well. Last September, Japan passed its Peace and Security Legislation which authorizes collective self-defense in limited circumstances. The Philippines remained committed to solving its maritime dispute with China peacefully through arbitration under the Law of the Sea Convention. The Philippine Supreme Court upheld the Philippine's domestic approval of the Enhanced Defense Cooperation Agreement (EDCA), which will provide significant partnership and access benefits. India underscored its "Act East" policy by crafting a Joint Strategic Vision of the Asia-Pacific and Indian Ocean Region with the U.S. and is progressing toward signing essential foundational agreements that will enable deeper ties, improve interoperability, and increase cooperation. Singapore has increased routine access to U.S. military assets such as

Littoral Combat Ships and P-3/P-8 aircraft. Trilateral cooperation among allies is increasing and multilateral forums such as the Association of South East Nations (ASEAN) are focusing on shared security challenges in the region. These events demonstrate that Indo-Asia-Pacific countries are increasingly viewing the U.S. as their security partner of choice. That said, significant challenges remain.

Key Challenges

North Korea: Though North Korea is not yet an existential threat to the U.S., it remains the most dangerous and unpredictable actor in the Indo-Asia-Pacific. Kim Jung Un regularly conducts provocative and escalatory actions. Just last month, North Korea conducted an underground nuclear test, the fourth since 2006, which violated its obligations and commitments under international law, including several UN Security Council Resolutions. Additionally, two months ago, North Korea conducted a ballistic missile test under the guise of launching a satellite. These tests, coupled with the unprovoked mine attack on Republic of Korea (ROK) soldiers in the DMZ last August, are the latest in a series of actions intended to destabilize the Peninsula, challenge ROK President Park's leadership, and raise tensions.

While the international community urges North Korea to live up to its international obligations and return to credible negotiations under the Six-Party Talks framework, Pyongyang has shown no willingness to seriously discuss denuclearization. Kim Jung Un is on a quest for nuclear weapons, and the technology to miniaturize them and deliver them intercontinentally. Additional nuclear tests are likely to occur. North Korea will also likely test and field improved mobile intercontinental ballistic missiles and intermediate range ballistic missiles (MUSUDAN) capable of reaching Japan, and actively pursue its submarine launched ballistic missile development program. On 6 February, North Korea launched its second space vehicle in direct violation of several United Nations Security Council Resolutions, firing a complex, multi-stage rocket that also forms the basis of an intercontinental ballistic missile. North Korea announced its intent to conduct "annual and regular" drills to advance this prohibited capability. I have no doubt they will do so.

North Korea refuses to abide by the rules and norms of the international community and represents a clear danger to regional peace, prosperity, and stability. In the cyber domain, North Korea has lesser cyber technical capabilities than other states, but has already demonstrated them as a way to impose costly damage to commercial entities. This was demonstrated in the high-profile attack on Sony Pictures Entertainment. North Korea sells weapons and weapons-related technologies in conflict with United Nation Security Council Resolution restrictions.

Chinese Military Modernization and Strategic Intent: China's military modernization program is transforming its forces into a high-tech military to achieve its dream of regional dominance, with growing aspirations of global reach and influence. Given China's economic rise, the goal may be natural; however, the lack of transparency on China's overall strategic intent behind its military investments and activities creates instability and regional anxiety.

China's navy and air forces are rapidly fielding advanced warships and planes. Over the past decade, the Chinese navy has significantly increased in size and is much more capable in every way. Chinese forces are operating at a higher tempo, in more places, and with greater

sophistication than ever before. Chinese shipyards are constructing China's first cruiser-sized warship, their first indigenous aircraft carrier, and many classes of patrol boats, frigates, and destroyers. Newer, more capable submarines continue replacing older ones. New fighters (including the "Gen-5" J-31), bombers, special mission aircraft, and unmanned systems give China greater air capabilities, lethality, and flexibility. These advances have been aided and accelerated by systemic technology theft, enabling China to skip decades of research and development and go straight into production. Finally, the People's Liberation Army (PLA) is undergoing dramatic reorganization to improve its command and control of joint forces.

China's strategic capabilities are significant. The JIN-class ballistic missile submarine (Type 094) carries the JL-2 submarine launched ballistic missile capable of reaching parts of the continental U.S. and represents China's first credible sea-based nuclear deterrent. New road-mobile intercontinental ballistic missiles provide more strike options and greater survivability.

In the maritime domain, China's Navy (PLA(N)) is increasing its routine operations in the Indian Ocean, expanding the area and duration of operations and exercises in the Western and Central Pacific Ocean, and is beginning to act as a global navy - venturing into other areas, including Europe, North America, South America, Africa, and the Middle East.

While China's actions are causing concern among neighbors in the region, there are potential opportunities. Its small but growing number of bilateral and multinational exercises suggests Beijing's greater willingness to interact with partners. Support for UN Peace Keeping missions is an encouraging sign of Chinese willingness to play a more active and constructive role in international affairs. My goal is to convince China that the best way ahead is through peaceful cooperation, participation and conformance in a rules-based order, and by honoring agreements made in good faith.

Territorial Disputes: The political and military dynamic in the East and South China Seas is changing, and tactical miscalculations between claimants present threats to stability and security.

In the East China Sea, tensions between Japan and China over the Senkaku Islands continue. China seeks to challenge Japan's administrative control over the islands by deploying warships into the area, sailing coast guard ships inside the territorial waters surrounding the Senkakus, and intercepting Japanese reconnaissance flights. In April of 2014, President Obama affirmed that Article V of the U.S.-Japan Security Treaty includes the Senkaku Islands. I am bound to protect that promise.

In the South China Sea, the situation is more complex. There are six claimants to disputed features: Brunei, China, Malaysia, the Philippines, Taiwan, and Vietnam, and there are three notable disputes over territorial sovereignty. The first dispute is between China, Taiwan, and Vietnam over the sovereignty of the Paracel Islands, which China took by force from Vietnam and has occupied since 1974. The second dispute is between China, Taiwan, and the Philippines over Scarborough Reef, of which China seized control in 2012. The third dispute involves multiple claimants within the Spratly Islands where China, Taiwan, Vietnam, Brunei, Malaysia, and the Philippines each claim sovereignty over various features.

The U.S. takes no position on competing sovereignty claims in the South China Sea, but we encourage all countries to uphold international law, as reflected in the Law of the Sea Convention, which ensures unimpeded lawful commerce, freedom of navigation and overflight, and peaceful dispute resolution.

While China has not clearly defined the scope of its maritime claims in the South China Sea, China has unilaterally changed the status quo. Chinese leaders seem to believe that, through coercion, intimidation, and force, they can bypass accepted methods of dispute resolution. They have demonstrated this through aggressive artificial island building, and by growing a fleet of “white hull” ships and fishing vessels whose purpose is to dominate the area without the appearance of overt military force. China is now turning its artificial island projects into operating bases for forward-staging military capabilities - under the rubric of being civilian facilities. For example in January 2016, China landed civilian aircraft on its man-made airbase at Fiery Cross Reef. The PLA is installing new or improved radars, communications systems, and other military capabilities at seven separate reclaimed bases. The scale and scope of these projects are inconsistent with the China’s stated purpose of supporting fishermen, commercial shipping, and search and rescue. Although Vietnam, Malaysia, the Philippines, and Taiwan have also conducted land reclamation in the South China Sea, their total - approximately 115 acres over 45 years - is dwarfed by the size, scope, speed, and scale of China’s massive buildup. In a little over two years, China has constructed more than 3,000 acres of artificial land - heightening environmental concerns by destroying the fragile ecosystem of the South China Sea. Professor John McManus of the University of Miami has called this the most rapid rate of permanent loss of coral reef area in human history. Equally concerning is Beijing’s repeated pronouncements that it will not accept any decision issued by the arbitral tribunal in the case filed by the Philippines under the Law of the Sea Convention.

China’s actions undermine the international rules-based order. Furthermore, these actions have driven China’s South China Sea neighbors to expand their own military capabilities and seek stronger relationships with the U.S. and one another. The result is a situation that is ripe for miscalculation that could escalate to conflicts that no one wants, in an area vital to global prosperity.

While preventing conflict in South China Sea requires patience and transparency among all parties, time favors the Chinese. For the U.S. to continue to play a constructive role in preventing conflict and supporting peaceful dispute resolution requires national resolve and a willingness to apply all elements of national power in the right measure to influence all claimants to use international dispute resolution mechanisms. For example, USPACOM recently conducted freedom of navigation operations in the South China Sea- the continuation of a longstanding U.S. practice. These operations are an important military tool to demonstrate America’s commitment to the rule of law, including the fundamental concept of freedom of navigation. The U.S. will sail, fly, and operate wherever international law allows.

Russian Assertiveness: Though focused on Europe and the Middle East, Russia is engaged politically and militarily in the Indo-Asia-Pacific. Russian activity is assertive, but not confrontational. Ships and submarines of the Russian Pacific Fleet and long range aircraft routinely demonstrate Russia’s message that it is a Pacific power.

Russian ballistic missile and attack submarines remain especially active in the region. The arrival in late 2015 of Russia's newest class of nuclear ballistic missile submarine (DOLGORUKIY SSBN) in the Far East is part of a modernization program for the Russian Pacific Fleet and signals the seriousness with which Moscow views this region.

Violent Extremism / Foreign Fighters: The Indo-Asia-Pacific has the largest Muslim population on the planet and extremism is a rising challenge. Of the many extremist groups in the Indo-Asia-Pacific, those connected to Islamic State of Iraq and the Levant (ISIL) or Al-Qa'ida (AQ) are of greatest concern. Foreign fighters from the Indo-Asia-Pacific have contributed to violence in Syria and Iraq and pose a growing threat to security in their home countries upon their return. Attacks in Australia and Bangladesh underscore regional concerns about self-radicalized actors. Small but growing numbers of Bangladeshi, Indonesian, and Philippine extremists have pledged fealty to ISIL, and threats to host nation and Western interests are rising. USPACOM - in coordination with USSOCOM - and partner nations are focused on disrupting these extremist networks.

Transnational Crime: Transnational Criminal Organizations (TCOs), many operating sophisticated global enterprises that traffic in human beings, weapons, drugs, and other illicit substances, exist throughout the Indo-Asia-Pacific. The revenue from criminal endeavors threatens stability and undermines human rights. Corruption follows wherever these organizations flourish, weakening governments and contributing to regional instability.

Methamphetamine and amphetamine-type stimulants continue to be the primary drug threat in the region. Joint Interagency Task Force-West (JIATF-W) reports that at least 90 percent of the precursor chemical seizures potentially destined for illicit methamphetamine production originates in China. Maritime container shipments of China-sourced chemicals are diverted for methamphetamine and heroin/opioid production in Mexico - a direct threat to the U.S. homeland. The Asia-Pacific is also a growing, lucrative market for illicit narcotics produced in the Western Hemisphere. Just last week, JIATF-W coordinated with French authorities in French Polynesia to apprehend a sailing vessel located with almost 750 kilograms of cocaine.

Nearly 36 million victims of human trafficking are estimated worldwide and nearly two-thirds are from Asia. Women and children - especially those from the lowest socioeconomic sectors - are the most vulnerable. Roughly half of those 36 million victims end up in the commercial sex trade, while others are forced into difficult and dangerous positions in factories, farms, as child soldiers, or as domestic servants. While much remains to be done, USPACOM forces, including JIATF-W, are building partner capacity and sharing intelligence in order to combat these transnational threats.

Proliferation Issues: The Indo-Asia-Pacific region has the busiest maritime and air ports in the world. Developing technology has outpaced many nations' ability to effectively manage export controls. Trade includes dual-use technology - commercial items controlled by the nuclear, ballistic missile, and chemical/biological weapons control regimes, including manufactured or re-exported materials from other nations with limited export control enforcement.

USPACOM's Countering Weapons of Mass Destruction (CWMD) community supports counter-proliferation operations throughout the Indo-Asia-Pacific region. USPACOM addresses concerns through key leader engagements, combined and joint exercises, and international security exchanges focused on counter proliferation activities. Recent success stories include Vietnam joining 104 nations as an endorsee of the Proliferation Security Initiative (PSI). The PSI rotational exercise series provides a framework for partner nations to improve legal authorities and operational capabilities to interdict WMD, delivery systems, and other related materials. Proactive dialogue under PSI is vital to reducing WMD proliferation.

USPACOM works with the Armed Forces of the Philippines to enhance military to military interoperability and provide assistance to military first responders' capability to respond to a WMD. Under section 1204 of the FY14 National Defense Authorization Act (NDAA), the primary objective of USPACOM's WMD assistance is to train and equip first responders. In Aug 2015, USPACOM, Service Components, and combat support agencies such as the Defense Threat Reduction Agency provided the Armed Forces of the Philippines (AFP) a "first class" Chemical, Biological, Radiation, Nuclear (CBRN) Defense capability. Under these section 1204 authorities, USPACOM will begin to work with Thailand, Vietnam, and Malaysia to enhance their capacity to respond to a WMD event.

Natural Disasters: The Indo-Asia-Pacific remains the world's most disaster-prone region, experiencing over 2,700 disasters that affected nearly 1.6 billion people in the past decade alone. In addition to seismic and weather disasters, areas of large populations, dense living conditions, and poor sanitation in the region create optimal conditions for the rapid spread of diseases. U.S. forces regularly train with allies and partners in disaster relief operations and are called upon often to respond to tragic events.

USPACOM's Center for Excellence for Disaster Management (CFE-DM) increases regional governments' readiness to respond to natural disasters by developing lessons learned and providing best practices. Many of the lessons learned and preparedness measures implemented after Typhoon Haiyan (Operation Damayan, November 2013) reduced damage and loss of life when Typhoon Hagupit struck the Philippines in 2014. To help USPACOM rapidly respond to future natural disasters, Vietnam is allowing sets of vehicles, equipment, and supplies to be prepositioned within its borders for disaster preparedness purposes. USPACOM will continue improving pre-crisis preparedness and working with allies and partners to improve responses whenever disasters strike, but it is important to note that disaster preparedness cannot overtake traditional military readiness as our focus.

Strategic Force Posture in the Indo-Asia-Pacific

The tyranny of distance and short indications and warnings timelines place a premium on robust, modern, and agile forward-stationed forces at high levels of readiness. USPACOM requires a force posture that credibly communicates U.S. resolve, strengthens alliances and partnerships, prevents conflict, and in the event of crisis, responds rapidly across the full range of military operations. USPACOM's strategic force posture is also supported by the deployment of rotational forces and the fielding of new capabilities and concepts that address operational shortfalls and critical gaps.

Global Force Management (GFM): In support of the Rebalance, the Department has undertaken GFM initiatives that include the deployment of Littoral Combat Ships to Singapore, replacing the aircraft carrier USS GEORGE WASHINGTON in Japan with the more capable USS RONALD REAGAN, the deployment of two additional ballistic missile defense-capable surface ships to Japan, and the stationing of additional submarines and a submarine tender in Guam. The Air Force deploys a broad range of aircraft as part of its Theater Force Package model including B-52s, F-22s, F-16s, E-8s, and RC-135s. The Army forward deployed a second ballistic missile defense radar in Japan, maintained a THAAD battery in Guam, and delivered training and presence across the region through Pacific Pathways, enhancing partnership opportunities without permanent basing. The Army also continues updating Prepositioned Stocks (APS) and advocating for the placement of Disaster Response activity sets across Southeast Asia. The Marine Corps continues to execute the Defense Policy Review Initiatives (DPRI), which will reduce the Marine Corps footprint in Japan and distribute Marine Air Ground Task Force (MAGTF) capability across the region. The Marine Corps is also expanding rotational presence in Australia through its Marine Rotational Force-Darwin initiative. USPACOM plans to improve rotational force presence in the Philippines via the Enhanced Defense Cooperation Agreement (EDCA) and establishing USAF dispersal capabilities in the Commonwealth of the Northern Mariana Islands (CNMI) and in the Northern Territory of Australia. Rotational forces west of the International Date Line are positioned to deter and defeat potential aggressors in the region. Finally, we are beginning consultations with the government of South Korea for the placement of a Terminal High Altitude Air Defense capability on the Korean Peninsula.

Posture Initiatives:

The size and scope of forward stationed forces and the challenges within the security environment require recapitalization and improvement to infrastructure in theater. To that end, fiscal year 2016 military construction projects largely reflect requirements that support fielding new capabilities in the region, to include the F-35 Joint Strike Fighter, CV-22 Osprey, C-130J Hercules, and F-22 Raptor. Additional investments support resiliency initiatives and infrastructure recapitalization in Australia, Guam, CNMI, Hawaii, and Japan; critical munitions throughput recapitalization in California (Military Ocean Terminal Concord); and quality of life investments for our forces in South Korea and Japan.

Additionally, USPACOM's force posture strategy seeks to provide the correct level of capital investment to support established posture initiatives and commitments, including efforts in Korea (Yongsan Relocation Plan and Land Partnership Plan) and Japan (Okinawa Consolidation and the Defense Policy Review Initiative). In support of these initiatives, the Government of Japan committed up to \$3.1 billion to help realign U.S. Marines from Okinawa to Guam and other locations, and \$4.5 billion to expand the airfield and associated facilities at Marine Corps Air Station Iwakuni. Korea and Japan maintain robust host nation funded construction programs, which play vital roles in supporting U.S. presence and enduring capabilities in the region. These vital partner contributions require the Services to program Planning and Design funds to ensure our allies deliver facilities that meet our requirements.

Furthermore, USPACOM is expanding its presence in various parts of the region to include completing the permanent stationing of THAAD on Guam, the addition of a submarine and sub

tender in Guam, additional Aegis BMD capable ships to Japan, and seeking the assignment of additional Intelligence, Surveillance, and Reconnaissance (ISR) assets in the region. In support of the Rebalance, USPACOM is in the midst of executing four major Force Posture initiatives: (1) U.S.-Japan Defense Policy Review Initiative (DPRI) / USMC Distributed Laydown, (2) U.S. Forces Korea Realignment, (3) Resiliency Efforts, and (4) Agile Logistics.

- **DPRI:** USPACOM is making progress on DPRI/USMC Distributed Laydown initiatives; however, significant Japanese political challenges remain. Consolidation of U.S. Marines in Japan is dependent upon completion of Okinawa construction efforts to include the Futenma Replacement Facility (FRF). In spite of the Government of Japan (GOJ) political resolve and dedication of resources, progress on relocating Marines from Futenma to Camp Schwab is slow going. GOJ budgeted \$258M in FY15 for 200 projects, but only 9 facilities have been completed with an additional 8 under construction. GOJ faces challenges in several areas, including overcoming Nago City obstruction impacting construction and controlling protester interference. The central government has dispatched police officers from the mainland to Okinawa to assist the Okinawa Prefectural Police in managing protest activity in and around U.S. bases in Okinawa. However, as of this writing, very little progress has been made in improving the situation and protests continue to escalate. While the issues in Okinawa continue, USPACOM made progress in laying the groundwork for relocating 5,000 Marines to Guam. Tied to the Guam effort, DoD is aggressively pursuing the establishment of the CNMI Joint Military Training (JMT) Area to mitigate joint training deficiencies in the region.
- **USFK Realignment:** The consolidation of U.S. forces in Korea via the Land Partnership Program (LPP) and Yongsan Relocation Program (YRP) is moving ahead at full-speed. Construction will triple the size of Camp Humphreys and increase the base's population to ~36,000 troops and family members. The ROK is bearing the majority of the relocation's cost, committing over \$7.5 billion to the project. USPACOM appreciates Congress' continued support of DoD's largest peace-time relocation project.
- **Resiliency Efforts:** USPACOM resiliency efforts include investment in a more robust transportation infrastructure in ally and partner countries, mitigation of single points of failure via the dispersal and optimization of critical enablers, such as communication nodes, fuel, medical, and logistic support equipment, and hardening facilities. For example, USPACOM is hardening facilities in Guam and CNMI as well as enhancing airfields at dispersed sites throughout the theater.
- **Agile Logistics:** Due to time and distance required to move assets within the USPACOM region, it is imperative to invest in infrastructure to ensure logistics commodities - munitions, fuel, and other war materiel - are properly prepositioned, secured, and available to meet requirements. USPACOM continues to build capacity for pre-positioned war reserve fuel stocks and invest in munitions, fuel, and other war materiel facilities and infrastructure throughout the theater. For example, critical munitions throughput recapitalization in California (Military Ocean Terminal Concord) is necessary to support USPACOM plans and operations.

Readiness: USPACOM is a “fight tonight” theater with short timelines across vast spaces. Threats such as North Korea - which has over a hundred thousand rockets aimed at Seoul - require U.S. military forces in the region maintain a high level of readiness to respond rapidly to a crisis. USPACOM’s readiness is evaluated against its ability to execute operational and contingency plans, which place a premium on forward-stationed, ready forces that can exercise, train, and operate with our partner nations’ militaries and follow-on forces able to respond to operational contingencies.

Forward-stationed forces west of the International Date Line increase decision space and decrease response time, bolster the confidence of allies and partners, and reduce the chance of miscalculation by potential adversaries.

The ability of the U.S. to surge and globally maneuver ready forces is an asymmetric advantage that must be maintained. Over the past two decades of war, the U.S. has of necessity prioritized the readiness of deploying forces at the expense of follow-on-forces and critical investments needed to outpace emerging threats. A shortage of ready surge forces resulting from high operational demands, delayed maintenance periods due to sequestration, and training pipeline shortfalls limit responsiveness to emergent contingencies and greatly increase risk. These challenges grow each year as our forces downsize while continuing to deploy at unprecedented rates.

Fiscal uncertainty requires the Department to accept risk in long-term engagement opportunities with strategic consequences to U.S. relations and prestige. Continued budget uncertainty and changes in fiscal assumptions in the Future Years Defense Program (FYDP) degrade USPACOM’s ability to plan and program, leading to sub-optimal utilization of resources. Services must be able to develop and execute long-term programs for modernization while meeting current readiness needs. Much of the supporting infrastructure in the Pacific and on the West Coast of the U.S. mainland was established during World War II and during the early years of the Cold War. The infrastructure requires investment to extend its service life but the Services struggle to maintain infrastructure sustainment, restoration, and modernization accounts at appropriate levels. If funding uncertainties continue, the U.S. will experience reduced warfighting capabilities and increased challenges in pacing maturing adversary threats.

Allies and Partners

USPACOM’s forward presence, posture, and readiness reassure allies and partners of U.S. commitment to security in the Indo-Asia-Pacific. Strengthening these relationships is critical to meeting the challenges and seizing opportunities. Through bi-lateral and multi-lateral relationships and activities, USPACOM is building a community of like-minded nations that are committed to maintaining of the international rules-based order. The U.S.’s five Indo-Asia-Pacific treaty allies are Australia, Japan, Republic of Korea, Philippines, and Thailand. In addition, the U.S. continues to strengthen partnerships with New Zealand, India, and Singapore, and build new relationships that advance common interests with Vietnam, Mongolia, Malaysia and Indonesia. This year, USPACOM plans to leverage Fiscal Year 2016 National Defense Authorization Act, Public Law 114-92, Section 1263, “South China Sea Initiative” (Section

1263) authority, to begin implementing the Secretary's Southeast Asia Maritime Security Initiative (MSI) – an initiative Secretary Carter announced at the Shangri-La Dialogue that will increase the maritime security and maritime domain awareness capacity of the Philippines, Vietnam, Malaysia, Indonesia, and Thailand. The Secretary has made available \$50 million in FY16 funding and announced an additional \$375 million from FY17-20 to conduct MSI activities pursuant to this authority. MSI takes a regional approach to help our partners better sense activity within their sovereign territorial domain, share information with domestic joint and international combined forces, and contribute to regional peace and stability operations. I'm also looking forward to improving military-to-military relationships with Burma and Sri Lanka, once political conditions permit. Strengthening and modernizing alliances and partnerships is a top USPACOM priority.

Allies

Japan: The US-Japan alliance remains strong and operational cooperation between USPACOM and the Japan Joint Staff continues to increase. Our relationship is a cornerstone of regional stability. On September 19th, 2015 Japan's Peace and Security Legislation authorizing limited collective self-defense passed into law and will take effect this year. Japan's Peace and Security Legislation and the revised Guidelines for U.S.- Japan Defense Cooperation will significantly increase Japan's ability to contribute to peace and security. Japan's leadership has worked toward lessening historical tensions and improving cooperation and collaboration with the Republic of Korea (ROK) in areas such as information sharing and disaster response. The Government of Japan supports USPACOM activities to maintain freedom of navigation in the South China Sea. In another growing relationship, a Japanese destroyer participated in the U.S.- India-Japan trilateral exercise MALABAR in October and then transited the South China Sea in company with the USS Theodore Roosevelt in early November. Japanese P-3s exercised with the Philippines and operated in the South China Sea while returning to Japan from Southwest Asia.

Republic of Korea: The ROK alliance remains strong, and I am optimistic that the Japan-ROK relationship will continue to improve, which I hold as a top priority. The U.S. and ROK agreed to delay wartime operational control (OPCON) transfer and adopt a conditions-based approach, rather than following a calendar-based deadline. Secretary of Defense Carter and his counterpart, Minister Han, signed the Conditions Based OPCON Transition Plan (COTP) in November 2015 at the annual Security Consultative Meeting in Seoul. This is part of American and ROK efforts to modernize the alliance to better address continued threats and provocations from North Korea such as January's nuclear test and February's space launch. Trilateral cooperation with Japan is the next logical step to ensure both countries' mutual security.

Australia: The U.S.-Australia alliance anchors peace and stability in the region. Australia plays a leading role in regional security and capacity-building efforts and addressing disaster response. Australia is a key contributor to global security, contributing to counter-ISIL efforts in Iraq and the Resolute Support mission in Afghanistan. With the implementation of force posture initiatives, the Marine Rotational Force-Darwin successfully completed its third rotation while increasing its presence from 250 to 1,177 U.S. Marines. The fourth rotation begins in April 2016. The U.S. and Australia are increasing collaboration in counter-terrorism, space, cyber, integrated air missile defense, and regional capacity building. Australia is procuring high-tech

U.S. platforms that will increase interoperability. These include the F-35A Lightning II, P-8 Poseidon, C-17 Globemaster III, EA-18G Growler, Global Hawk UAVs, and MH-60R helicopters. To enhance synchronization and integration, the Australian Government provides a Flag Officer and a Senior Executive (civilian) to USPACOM and a General Officer to U.S. Army Pacific staffs on a full-time basis.

Philippines: The alliance between the Philippines and the U.S. has been important for more than 65 years. The Philippines Supreme Court recently upheld the Philippine's domestic approval of the Enhanced Defense Cooperation Agreement (EDCA) which will improve U.S. access and build Philippine military capacity by addressing capability gaps, long-term modernization, Maritime Security (MARSEC), Maritime Domain Awareness (MDA), and disaster response capabilities. USPACOM is exploring way to use MSI to realize Philippines MARSEC and MDA capability development. The Philippine Navy has made good use of two previously awarded Excess Defense Article (EDA) U.S. Coast Guard Cutters. During the 2015 Cooperation Readiness Afloat and Training (CARAT) exercise, one of the EDA cutters (BRP RAMON A. ALCARAZ PF-16) operated with the USS FORT WORTH, enhancing our shared security concerns. During the 2015 Asia-Pacific Economic Cooperation summit, President Obama announced the award of a third former U.S. Coast Guard cutter through the EDA program, which will significantly enhance the Philippine Navy's maritime security capabilities, and, through MSI, we are exploring ways to ensure that this vessel is delivered fully mission capable. U.S. P-3s and P-8s already operate from Clark Air Base on a rotational basis, and the EDCA will increase U.S. access in crisis to Philippine facilities that are important strategic locations. USPACOM provides information sharing and training for the Armed Forces of the Philippines in the areas of MARSEC and MDA. Additionally, USPACOM provided \$3.5 million in Chemical, Biological, Radiological, and Nuclear (CBRN) equipment and two years of sustainment training to the Armed Forces Philippines Defense Initiative through the CBRN Defense programs. USPACOM appreciates the continued support of the Defense Threat Reduction Agency, Joint Program Executive Office, and Joint Requirements Office in providing CBRN equipment and training to partners in the region.

Thailand: The U.S. and Thailand's long relationship began with a Treaty of Amity and Commerce in 1833, now 183 years old; that relationship expanded into a defense treaty in 1954, and the U.S. continues to value our alliance and friendship. Unfortunately, the Thai military's ongoing control of the civilian government since May 2014 undermines this important relationship. The U.S. encourages a return to democracy that will fully restore our bond; until then, military engagements and exercises will continue in reduced form. USPACOM will continue demonstrating commitment to our oldest ally while also reinforcing democratic values and ideals. Moving forward, it would be my hope that we use MSI to more fully support Thailand's maritime security and maritime domain awareness capability as an important member of the region. Moving forward, it would be my hope that we use MSI to more fully support Thailand's maritime security and maritime domain awareness capability as an important member of the region.

Partners

Singapore: Singapore is our most important partner in Southeast Asia. It has been a major security cooperation partner for over a decade and provides invaluable access for U.S. forces.

The rotational deployment of Littoral Combat Ships to Changi Naval Base has been productive, and P-8s now operate out of Paya Lebar Air Base on a regular basis. USPACOM conducts dozens of military exercises each year with Singapore's Armed Forces, Singaporean military officers regularly attend U.S. professional military education, and Singaporean military personnel participate in advanced military training that is conducted throughout the United States. Singapore hosts the annual Shangri-La Dialogue, a Secretary of Defense-level event that deepens regional ties and tables important issues for discussion. The combination of forward deployed forces and deep training relationships contribute to readiness, build deeper ties, and allow the U.S. to promote maritime security and stability with regional partners.

India: The new found momentum in our bilateral relationship with India represents USPACOM's most promising strategic opportunity. In January 2015, President Obama and Prime Minister Modi signed a Joint Strategic Vision of the Asia-Pacific and Indian Ocean Region. This landmark document presents shared views and interests for the region. The U.S. / India military-to-military relationship deepens as forces increasingly train and operate together. USPACOM intends to add momentum to an important relationship. Through this end, I have made improving the military-to-military with India a formal Line of Effort at USPACOM. In June 2015, during Secretary of Defense Carter's visit to India, the U.S. and India renewed the ten-year Defense Framework Agreement. In 2015, U.S. and India militaries participated together in three major exercises and 62 other military exchanges covering scenarios ranging from high-end warfare to humanitarian assistance and disaster response. The US-India Defense Technology and Trade Initiative (DTTI) further expands opportunities. Defense sales are at an all-time high and U.S.-sourced airframes, such as P-8s, C-130Js, C-17s, AH-64s and CH-47s, increase interoperability. USPACOM will advance the partnership with India by expanding the scope of military-to-military interactions.

New Zealand: Despite differences over nuclear policy, our military-to-military relationship with New Zealand, underpinned by the Wellington and Washington Declarations, is on solid footing. The New Zealand military has fought, flown, and sailed with U.S. forces since the beginning of Operation Enduring Freedom. New Zealand continues to be a respected voice in international politics and a recognized leader in the South Pacific that shares common security concerns with the U.S., including terrorism, transnational crime, and maritime security. Military-to-military relations and defense engagements with New Zealand remain strong.

Vietnam: Vietnam's growing economy and their concerns over Chinese coercion presents a strategic opportunity for the U.S. to add another regional partner. USPACOM is moving forward with Vietnam to improve Vietnam's capacity and capability in maritime security, disaster response. We are also exploring ways to use MSI to support Vietnam's maritime security modernization efforts, including in the area of search and rescue. In addition, Vietnam has agreed to allow U.S. prepositioning humanitarian stocks and supplies for disaster preparedness purposes.

Indonesia: Indonesia is an important security partner in Southeast Asia. President Joko Widodo's initiative to transform Indonesia into a global maritime "Fulcrum" demonstrates Indonesia's desire to play a larger role in international diplomatic, economic, and security issues. Again, USPACOM is developing ways to partner with Indonesian security forces through MSI

and other U.S. security cooperation programs to improve Indonesia's maritime security capacity and encouraging a collaborative regional maritime security architecture. Indonesia is not a claimant to territory in South China Sea maritime dispute, but it is reinforcing security on and around its Natuna Islands. Indonesia will maintain relationships with other influential nations such as Russia and China, but security cooperation with the U.S. is a top priority for Jakarta. As a tangible sign of this, the United States and Indonesia signed a ministerial-level Joint Statement on Comprehensive Defense Cooperation in October.

Malaysia: Malaysia is another important contributor to regional peace and security. Through the Comprehensive Partnership with Malaysia, the U.S. and Malaysia promote regional stability. Malaysia's regional leadership role, technologically advanced industry, stable economy, and capable military make it an important partner in securing peace and prosperity in Southeast Asia. USPACOM continues to assist Malaysia in building an amphibious force to address non-traditional threats in and around Malaysia's territorial waters. Malaysia seeks U.S. support in developing a more capable Coast Guard through the Malaysia Maritime Enforcement Agency. These capabilities and engagements demonstrate Malaysia's capacity and resolve to ensure regional and domestic security, and Malaysia develops opportunities for multilateral security cooperation through Cooperation Afloat Readiness and Training (CARAT) exercises. Like other Section 1263-designated countries, we are exploring ways that MSI can support Malaysia's maritime security requirements in each of these areas.

Sri Lanka: President Sirisena, elected in January, is serious about addressing Sri Lanka's human rights issues. We have an opportunity to expand U.S. interests with Sri Lanka - Asia's oldest democracy - and will proceed deliberately as progress is made. Given Sri Lanka's strategic location, it is in America's interest to increase military collaboration and cooperation. As conditions permit, USPACOM will expand military leadership discussions, increase naval engagement, and focus on defense institution building in areas such as demobilizing and military professionalism.

Others

In addition to Indo-Asia-Pacific allies and partners, USPACOM has many other unique relationships throughout the region with countries, jurisdictions, and international governmental organizations. These relationships are important parts of our overall strategy.

Taiwan: Free and fair democratic elections in January on the island of Taiwan reflect shared values with the U.S. The U.S. maintains its unofficial relations with Taiwan through the American Institute in Taiwan and we continue supporting Taiwan's security. USPACOM will continue to fulfill U.S. commitments under the Taiwan Relations Act; continued arms sales to Taiwan are an important part of that policy and help ensure the preservation of democratic government institutions.

The United Kingdom (UK), Canada, and France: Staunch NATO allies, the UK, Canada, and France are also Indo-Asia-Pacific nations, each with significant interests in the Pacific and Indian Oceans, including territories, allies, partners, and trade. Each participates in PACFLT's RIMPAC and other major exercises, and deploy ships, submarines, and other forces to the region for operational, partner capacity, law enforcement and disaster response missions. Canada has a

General Officer serving as a Deputy Director for Operations at USPACOM; the UK will assign a similar grade officer to serve as Director of USPACOM's Theater Security Cooperation effort. Each nations' leadership expressed renewed commitment to the region, and USPACOM welcomes and supports their efforts.

The Association of Southeast Asian Nations (ASEAN): While not a military alliance, ASEAN is among the most important multilateral forums in the region. The ten ASEAN member states, under the chairmanship of Malaysia last year and Laos this year, seek to improve multilateral security engagements and advance stability in the Indo-Asia-Pacific. ASEAN-centered political-security fora such as the ASEAN Defense Minister's Meeting Plus (ADMM-Plus) and ASEAN Regional Forum (ARF) have encouraged ASEAN members and China to conclude a meaningful, substantive Code of Conduct for the South China Sea. USPACOM investment in the ADMM-Plus, ARF and other U.S. ASEAN defense engagements improve multilateral defense cooperation and promote regional norms. Facilitating capacity building through incrementally increasing the complexity of ASEAN's recurring multilateral exercises is a priority. In 2016, USPACOM will participate in the second series of ADMM-Plus' three major exercises.

China: The U.S.-China relationship remains complex. While Chinese actions and provocations create tension in the region, there are also opportunities for cooperation. The U.S. approach to China encourages a dialogue between the armed forces of both countries to expand practical cooperation where national interests converge and to constructively manage differences through sustained and substantive consultations. USPACOM's engagements with China, governed by section 1201 of the FY2000 NDAA, improve transparency and reduce risk of unintended incidents, enhancing regional stability.

USPACOM executed over 50 bilateral and numerous multilateral engagements last year with China. USPACOM supports our national effort to encourage China to support the existing security architecture; however, China's base-building and militarization in the South China Sea, its lack of transparency regarding military modernization efforts, and continued malicious cyber activity raise regional tension and greatly hinder U.S.-China cooperation. Instead of jointly working toward reinforcing international rules and law to promote regional peace and stability, U.S.-China engagements are often focused on reducing friction and avoiding miscalculation.

USPACOM hosted a U.S.-China Military Maritime Consultative Agreement plenary and working group focused on operational safety in November 2015. USPACOM also provided significant support to the development of the Rules of Behavior memorandum of understanding on safety in the air and maritime domain. Ongoing dialogues led to improved communications and safer encounters at sea and in the air.

There are areas where U.S. and Chinese militaries cooperate in areas of common interest, such as counter piracy, military medicine, and disaster response. The most successful engagements focused on military medical cooperation and shared health concerns. For example, in January 2015, the PLA hosted the USPACOM Surgeon and component surgeons in Beijing, Xi'an and Shanghai focused on Disaster Response, Pandemic and Emerging Infectious Diseases, and Soldier Care. In September, the USPACOM Surgeon sponsored the third acupuncture subject matter expert exchange between U.S. and PLA acupuncturists in Beijing, leading to collaborative

research on acupuncture treatment for post-traumatic stress disorder. USPACOM encourages China's participation in international efforts to address shared challenges in a manner consistent with international law and standards.

Bilateral and Multilateral Approaches: USPACOM is directly connected to regional leaders. I am in frequent communication with my regional counterparts and appreciate the ability to reach out at any time to share perspectives. USPACOM maintains a close link with allies and partners through staff exchange and liaison officers, in addition to a series of formal bilateral mechanisms. In Australia, key engagements stem from the ANZUS treaty obligations, guided by USPACOM's principle bilateral event with Australia, the Military Representatives Meeting. Similarly, USPACOM's military to military relationship with Japan is guided by the annual Japan Senior Leader Seminar. Military Committee and Security Consultative Meetings are the preeminent bilateral mechanisms that guide the ROK and U.S. alliance. Each year, USPACOM co-hosts the Mutual Defense Board and Security Engagement Board with the Armed Forces of the Philippines to deal with 21st-century challenges. USPACOM conducts annual Senior Staff Talks with Thailand to address security concerns and reinforce U.S. commitment to democratic principles. Bilateral mechanisms also exist with non-alliance partners throughout the region, including India, Indonesia, and Vietnam.

The future lies in multilateral security mechanisms. USPACOM is evolving key bilateral relationships into multilateral ones that will more effectively address shared security concerns. For example, US-Japan-ROK trilateral coordination in response to North Korean provocative behavior is improving. The ROK and Japan each recognize that provocative actions by North Korea will not be isolated to the peninsula and greater coordination and cooperation are required. The December 2014 signing of the US-Japan-ROK Trilateral Information Sharing Arrangement is an important step toward greater information sharing. This arrangement was first exercised in early January following the nuclear test in North Korea.

To encourage multilateral cooperation, USPACOM hosts the Chief of Defense Conference (CHODs) annually. The CHODs conference location rotates between Hawaii and a regional partner. In 2015, 31 countries attended the CHODs conference in Hawaii. USPACOM also participates in Australia-Japan-U.S. trilateral defense dialogues, including the Security and Defense Cooperation Forum (SDCF). The trilateral relationship between the U.S., Japan, and India is growing, as evidenced by the first trilateral ministerial meeting held last year. The U.S., Japan, and India share democratic values, interests in protecting sea lanes of commerce, and promoting adherence to international laws and norms. Next, USPACOM aims to build a powerful quadrilateral partnership framework of the most powerful democracies in the Indo-Asia-Pacific. India, Japan, Australia, and the U.S. working together will be a force for the maintenance of the regional rules-based order, counterbalancing and deterring coercion or unrestrained national ambitions.

Activities

Security Cooperation and Capacity Building: USPACOM's Security Cooperation approach focuses on building partner readiness, reducing partner capability gaps, and building partner capacity. One of the more powerful engagement resource tools is Foreign Military Financing (FMF). Favorable consideration for continued funding of FMF enables USPACOM to meet

regional challenges to include border security issues, disaster response, counterterrorism, and in particular, maritime security.

As I mentioned, USPACOM will leverage the FY16 NDAA section 1263 “South China Sea Initiative” authority to execute the Secretary’s Southeast Asia Maritime Security Initiative to build maritime security and maritime domain awareness of partners in the South China Sea region, through assistance to, and training of, partner nation maritime security forces. USPACOM will continue to rely on FMF as a source of providing major end items to eligible countries. MSI support notified pursuant to the new Section 1263 authority should be viewed as complementary and additive in nature to these FMF plans. Under MSI, PACOM plans to provide niche capabilities, more multi-mission type of equipment, and connective tissue that will help partners better deploy and employ these maritime security capabilities, both domestically to protect their sovereign territory, but also as a means of fostering greater regional interoperability.

Maritime Domain Awareness: Southeast Asian partners have expressed strong enthusiasm and support for U.S. security cooperation efforts in the area of maritime domain awareness (MDA). USPACOM will leverage MSI and the new Section 1263 authority to develop multilateral approaches to information sharing toward a regional common operating picture. This year, the Philippines, Australia and the U.S. are co-hosting a workshop to discuss regional best practices. This civilian-military workshop will facilitate whole-of-government discussions on maritime challenges that support creation of a regional maritime domain awareness network to share information across Southeast Asian partners - another multilateral approach to addressing security challenges in the region.

Global Peace Operations Initiative (GPOI): Indo-Asia-Pacific countries provide over 40% of the world’s uniformed peacekeepers to United Nations (UN) peacekeeping operations worldwide; half of those countries that provide UN peacekeepers are GPOI program partners. GPOI builds and maintains the capability, capacity, and effectiveness of partners to deploy professional forces to meet the UN’s needs in peace and security operations. Partners are meeting program goals achieving, or making progress towards achieving, self-sustaining, indigenous training capability. In 2016, USPACOM and Mongolia will cohost a multinational peacekeeping exercise called KHAAN QUEST, training personnel from 37 nations for deployment to UN peacekeeping missions. USPACOM expects 28 regional GPOI partners in KHAAN QUEST. USPACOM will continue improving partner military peacekeeping skills and operational readiness and provide limited training facility refurbishment. Indonesia’s plan to provide 4,000 deployable Peacekeeping Forces by 2020 is another opportunity for USPACOM to engage with Indonesian military forces.

Pacific Pathways: As an innovative way to overcome the Indo-Asia-Pacific’s vast time-distance challenges, U.S. Army Pacific (USARPAC) created Pacific Pathways which sequentially deploys small units to multiple countries for training. Their forward presence also enables rapid response to humanitarian emergencies or regional crises. This cost-effective program ensures that our regionally aligned Army elements know how to deploy and fight in the Indo-Asia-Pacific alongside our allies and partners. I support and encourage this kind of innovative thinking, and it pays major dividends in both relationships and readiness.

Joint Exercise Program: USPACOM's Joint Exercise Program intentionally synchronizes frequent, relevant, and meaningful engagements across the Indo-Asia-Pacific region. This important program, funded through the Combatant Commander Exercise Engagement Training Transformation (CE2T2), improves readiness of forward deployed assigned forces. Exercises and training strengthen USPACOM's military preeminence and enhance relationships. USPACOM appreciates Congress' support for continued progress.

Pacific Partnership: U.S. Pacific Fleet's (PACFLT) Pacific Partnership is an annual disaster response preparedness mission to Southeast Asia and Oceania regions. Pacific Partnership includes participation from U.S. allies and partners to improve cooperation and understanding between partner and host nations ahead of major natural disasters that require a multinational response. Last year, USNS MERCY conducted a four-month deployment to Fiji, Papua New Guinea, the Philippines, and Vietnam and provided healthcare and surgical procedures, community health engagements, and engineering projects including nearly 700 surgeries, 3,800 dental exams, and 10 renovation and new construction projects.

Joint Enabling Capabilities Command: One organization that supports USPACOM's ability to respond rapidly and effectively to events in theater is TRANSCOM's Joint Enabling Capabilities Command (JECC). The JECC is critical to USPACOM's ability to facilitate rapid establishment of joint force headquarters, fulfill Global Response Force (GRF) execution, and bridge joint operational requirements by providing mission-tailored, ready joint capability packages.

Counter-Narcotics: The drug trade continues to grow and threaten stability across the region. It has become a massive business, with sophisticated global networks. USPACOM combats drug trafficking in the region through Joint Interagency Task Force-West (JIATF-W). Building partner capacity to counter illicit trafficking of narcotics continues in areas such as the tri-border area of the Philippines, Malaysia and Indonesia, the coastal areas of Vietnam and Cambodia, and the border regions of Bangladesh. USPACOM is also fighting illicit trafficking across the Northern Thai border in the historic "Golden Triangle" area and beginning new partnerships with France to combat trafficking in and through French Polynesia and the Southern Pacific. Counter-narcotics programs support law enforcement and security forces, enhance relationships with partner nation law enforcement agencies, and impede the flow of narcotics and other illicit commodities.

JIATF-W engagements with China are an essential part of the counter narcotics effort. Maritime container shipments of China-sourced chemicals are often diverted for methamphetamine and heroin/opioid production in Mexico - a direct threat to the U.S. homeland. As much as 90 percent of the precursor chemicals used in methamphetamine production originates in China. Further, the annual volume of methamphetamine seizures going into the U.S. exceeded cocaine seizures on the southwest border of the U.S. in recent years. Through a partnership with the Internal Revenue Service, JIATF-W leveraged Department of Defense counternarcotic authorities to open an additional avenue of cooperation with Chinese officials by providing anti-money laundering training to counterdrug efforts. These efforts show promise in improving communication, cooperation, and information sharing on significant criminal enterprises operating in the U.S. and China.

The Daniel K. Inouye Asia-Pacific Center for Security Studies (DKI APCSS): DKI APCSS serves as a truly unique venue to empower regional security practitioners to more effectively and collaboratively contribute to regional security and stability. This center is one of our asymmetric capabilities. No other country has anything quite like it. Through its academic exchanges, workshops, and sustained alumni engagement activities, DKI APCSS helps build partner nation capacities and affirm U.S. interests in the region. DKI APCSS provides added support to the USPACOM mission in several uniquely focused areas: as one of the few organizations authorized to conduct carefully measured engagement with Burma defense officials; as the primary tool of security cooperation engagement with the Pacific Island region; and as USPACOM's lead in implementing the U.S. National Action Plan mandate to increase inclusion of women in the security sector under the Women, Peace, and Security program. Recent successes include development and implementation of a successful country-wide security plan for 2015 elections in Burma; building the capacity of government officials in preparation for the Lao 2016 chairmanship of ASEAN; enhancing the cybercrime investigation capability of the Bangladesh Police; developing rules of engagement for the Timor Leste police during peacetime; building a data system for collection of counterterrorism information in Vietnam; and improving coordination among Philippine national agencies, local government units, NGOs, and other stakeholders in disaster response.

Center for Excellence-Disaster Management (CFE-DM): The CFE-DM is USPACOM's executive agent for collecting lessons learned and developing and sharing best practices to prepare U.S. and partner governments for disaster response. CFE-DM recently completed a Joint After-Action Review of USPACOM's disaster response to the April 2015 Nepal Earthquake (Operation SAHAYOGI HAAT). The success of the response is a testament to Nepali preparation and disaster risk reduction efforts that were enhanced by our ongoing training assistance. The civilian national disaster management structures functioned, and the initial international response coalesced around the Nepal Army's Multinational Military Coordination Center (MNMCC). Five years of USPACOM Theater Security Cooperation initiatives with regional partners, organizations, and international agencies facilitated this collaborative foreign disaster response. CFE-DM supports USPACOM's efforts to increase resilience and more effective disaster response capabilities.

Critical Capabilities

The most technical, high-end military challenges in the region are growing. While many improvements to posture, forward deployed forces, and our relationships help address these challenges, USPACOM requires the best, high-end warfighting capabilities available now and in the future. As Secretary Carter recently said about deterring our most advanced competitors, "We must have, and be seen to have, the ability to impose unacceptable costs on an advanced aggressor that will either dissuade them from taking provocative action or make them deeply regret it if they do." There are a number of mission sets and enablers that requires continuous focus and attention. These include undersea warfare, munitions, ISR, cyber, space, and Integrated Air and Missile Defense (IAMD) systems. We must preserve our asymmetric advantages in undersea- and anti-submarine warfare, and we must regain and retain fading abilities to counter anti-access / area-denial (A2/AD) strategies.

Today, China is "out-sticking" U.S. air and maritime forces in the Indo-Asia-Pacific region in terms of ranges of anti-ship weapons. I need increased lethality, specifically ships and aircraft

equipped with faster, more lethal, and more survivable weapons systems. We must have longer range offensive weapons on every platform. Finally, we must have a networked force that provides greater options for action or response.

We face a significant A2/AD challenge in this region. Pacing the threat is not an option in my playbook. We must outpace the competition which requires continued investment in development and deployment of the latest technology to USPACOM. Examples include Navy Integrated Fires and the AEGIS Flight III destroyer and its Air and Missile Defense Radar (AMDR) – essential tools in the complex A2/AD battlespace in which our young men and women operate today. The arrival of the USS BARRY, USS BENFOLD and USS CHANCELLORSVILLE in the Western Pacific represent forward deploying cutting edge technology where it is needed.

Undersea Warfare: Of the world's 300 foreign submarines, roughly 200 are in the Indo-Asia-Pacific region; of which 150 belong to China, North Korea, and Russia. China is improving the lethality and survivability of its attack submarines and building quieter high-end, diesel- and nuclear-powered submarines. China has four operational JIN-class ballistic missile submarines (SSBNs) and at least one more may enter service by the end of this decade. When armed, a JIN-class SSBN will give China an important strategic capability that must be countered. Russia is a Pacific threat, modernizing its existing fleet of Oscar-class multi-purpose attack nuclear submarines (SSGNs) and producing their next generation Yasen-class SSGNs. Russia has also homeported their newest Dolgorukiy-class SSBN in the Pacific, significantly enhancing their strategic deterrence posture. USPACOM must maintain its asymmetric advantage in undersea warfare capability including our attack submarines, their munitions, and other anti-submarine warfare systems like the P-8 Poseidon and ship-borne systems.

Critical Munitions: Critical munitions shortfalls are a top priority and concern. USPACOM advocates for continued investment, additional procurement, and improved munitions technologies to better deter and defeat aggression. Munitions are a major component of combat readiness. USPACOM forces need improvements in munitions technologies, production, and pre-positioning, but fiscal pressure places this at risk.

USPACOM weapon improvement priorities include long-range and stand-off strike weapons, longer-range anti-ship weapons (ship and aircraft-based), advanced air-to-air munitions, theater ballistic/cruise missile defense, torpedoes, naval mines, and a cluster munitions replacement. Our subsonic ship-to-ship munition, the Harpoon, is essentially the same missile we had in 1978, when I was a newly-commissioned Ensign. Nearly forty years later, competitors have developed supersonic ship-to-ship and land-based weapons that reach much farther, punch harder, and fly faster. USPACOM welcomes efforts to turn the tables back in our favor - quickly. In the air-to-air realm, USPACOM welcomes advancements in munitions that will provide an advantage in a complex air-to-air environment. Additionally, modernization and improvement to U.S. torpedo and naval mine capabilities and inventories are required to maintain U.S. undersea advantage. Continued improvements in the capability and capacity of ballistic/cruise missile defense interceptors will further enhance homeland defense capabilities and protect key regional nodes from aggressive action. In support of Korea, USPACOM supports efforts to acquire a replacement for aging cluster munitions.

Intelligence/Surveillance/Reconnaissance: The challenge of gathering credible ISR cannot be overstated, and it is a constantly evolving problem. The Indo-Asia-Pacific presents a dynamic security environment requiring flexible, reliable, survivable deep-look and persistent ISR to provide indications and warning and situational awareness across a vast geographic area. As previously noted, USPACOM faces a variety of challenges and potential flashpoints to include threats from North Korea, a resurgent Russia, an expanding China, terrorism, and territorial disputes. Several hundred thousand Americans live under a constant threat of attack by North Korea, with over a hundred thousand rockets able to range Seoul on little to no notice. These challenges require ISR to prevent strategic surprise and accurately assess the security environment and, if necessary, defeat potential adversaries. The Rebalance to the Asia-Pacific has increased USPACOM allocation of ISR resources. USPACOM will continue to require additional advanced ISR to avoid long-term risk.

Cyber and Space: The cyber domain, coupled with space, is the most likely “first salvo” in a future conflict. Increased cyber capacity and nefarious activity, especially by China, North Korea, and Russia underscore the growing requirement to evolve command, control, and operational authorities. I support a separate CYBERCOM functional combatant command that retains its “double-hatting” with the National Security Agency. I also believe that in order to fully leverage the cyber domain, USPACOM requires an enduring theater cyber capability able to provide cyber planning, integration, synchronization, and direction of cyber forces.

USPACOM relies on space based assets for satellite communications (SATCOM) and ISR across the range of military operations. The USPACOM region spans over half the globe and space based assets are high-demand, low-density resources. As the shared domain of space grows increasingly congested and contested, our adversaries are developing means to attack our space-enabled capabilities. USPACOM requires resilient SATCOM capability to support operations. China is pursuing a broad and robust array of counterspace capabilities, which includes direct-ascent anti-satellite missiles, co-orbital anti-satellite systems, computer network operations, ground-based satellite jammers and directed energy weapons.

Integrated Air and Missile Defense (IAMD): TPY-2 radars in Japan, the THAAD system on Guam, and the Sea-Based X-band Radar (SBX) based in Hawaii defend the U.S. homeland and our allies. USPACOM’s IAMD priority is maintaining a credible, sustainable ballistic missile defense by forward deploying the latest in ballistic missile defense technologies to the Pacific. For example, the U.S. Seventh Fleet is increasing its Ballistic Missile Defense (BMD) capability with the addition of the USS BENFOLD, which arrived in Japan last year, and USS BARRY scheduled to arrive in early 2016. These ships received a midlife modernization, making them the most capable BMD ships in the world. The addition of these modernized ships enables the U.S. Seventh Fleet to better support the U.S.-Japan alliance with a credible ballistic missile defense capability. USPACOM continues to work with Japan, the Republic of Korea, and Australia to improve coordination and information sharing with the goal of creating a fully-integrated BMD architecture.

Innovation: Innovation is critical to addressing USPACOM’s capability gaps and maintaining our military advantage. USPACOM partners with DoD-wide organizations, national

laboratories, and industry to provide innovative solutions to fill capability requirements. In particular, USPACOM maintains a strong relationship with the OSD Strategic Capabilities Office (SCO), which is developing game-changing technologies for the Indo-Asia-Pacific. USPACOM strongly supports Deputy Secretary Work's Third Offset Strategy and the associated effort to strategically advance areas where the U.S. can maintain dominance. The ability to quickly and adaptively change joint operational concepts and innovatively employ current capabilities in a high-end fight is critical.

Conclusion

It has been over four years since the President announced the U.S. Rebalance to the Indo-Asia-Pacific. There is much more to the Rebalance than military activity and the success of this strategic concept depends as much on our economic and diplomatic efforts as it does on our military efforts. From the military perspective, I believe the Rebalance is working. This success is due in no small part to the support of this committee and the Congress. But we are not done, and we must not lose momentum. USPACOM appreciates your continued support. I ask this committee to support continued investment in future capabilities that meet the challenges in the Indo-Asia-Pacific. I appreciate your help in continuing to field the right numbers of existing capabilities. I ask for your support to our plans to adapt our regional force posture. Finally, I ask your continued support for our efforts to reinforce and enhance alliances and partnerships. Thank you for your enduring support to USPACOM and our men and women in uniform, and their families, who live and work in the vast Indo-Asia-Pacific.

STATEMENT OF
GENERAL CURTIS M. SCAPARROTTI
COMMANDER, UNITED NATIONS COMMAND;
COMMANDER, UNITED STATES-REPUBLIC OF KOREA COMBINED FORCES
COMMAND;
AND COMMANDER, UNITED STATES FORCES KOREA
BEFORE THE
HOUSE APPROPRIATIONS SUBCOMMITTEE ON DEFENSE

April 14, 2016



TABLE OF CONTENTS

1. INTRODUCTION

2. AMERICA'S FUTURE IN KOREA – SECURING VITAL INTERESTS AND ADVANCING REGIONAL STABILITY

3. THE COMMAND'S FOUR PRIORITIES – PROGRESS AND PROSPECTS

A. Sustain and Strengthen the Alliance

- 1. A new ROK-U.S. Combined Division improves interoperability.*
- 2. Rotational forces improve readiness.*
- 3. New capabilities improve the Alliance's defense and deterrence.*

B. Maintain the Armistice. Be Ready to "Fight Tonight" to Deter and Defeat Aggression

- 1. The Command maintains the Armistice and fosters stability on the Peninsula.*
- 2. Three successful exercises enhance the Command's readiness.*
- 3. A revitalizing UNC strengthens the international contribution to Korea's defense.*

C. Transform the Alliance

- 1. The MCM and SCM reaffirms ROK and U.S. commitment to defense cooperation.*
- 2. The plan for conditions-based OPCON transition defines an effective way forward.*
- 3. Effective military planning positions the Alliance to respond to an evolving threat.*

D. Sustain the Force & Enhance the UNC/CFC/USFK Team

- 1. The Command fosters a positive Command Climate through trust and team-building.*
- 2. Cohesive communities and new facilities promote Korea as an "Assignment of Choice."*

4. CRITICAL NEAR-TERM ALLIANCE TRANSITIONS

A. Enhance the Alliance's capabilities

- 1. Advance ISR, BMD, and critical munitions to sharpen our tools of deterrence.*
- 2. The Tailored deterrence strategy underscores the U.S. commitment to the Peninsula.*
- 3. The Combined Counter-Provocation Plan manages the risks of miscalculation.*

B. Relocate the U.S. force in Korea

- 1. Construction peaks as workers build facilities to triple the size of Camp Humphreys.*
- 2. U.S. Naval Forces Korea moves its headquarters to Busan, collocated with the ROK Navy.*

5. USFK'S CRITICAL NEEDS

6. CONCLUSION

1. INTRODUCTION

Mr. Chairman and distinguished members of the Committee, I am honored to testify as the Commander of the United Nations Command (UNC), the United States–Republic of Korea (U.S.-ROK) Combined Forces Command (CFC), and United States Forces Korea (USFK). Thank you for your continued support to our Service Members, Civilians, Contractors, and their Families, whose service each day on “Freedom’s Frontier” advances vital U.S. interests, strengthens the Alliance between the United States and the Republic of Korea, and makes a critical contribution to the stability of Northeast Asia. In my third year as the Commander, I have witnessed the U.S.-ROK Alliance grow stronger, as the Alliance has improved its capabilities, planning, and cooperation to counter evolving threats from North Korea and to advance our four priorities:

- Sustain and Strengthen the Alliance.
- Maintain the Armistice. Be Ready to “Fight Tonight” to Deter and Defeat Aggression.
- Transform the Alliance.
- Sustain the Force and Enhance the UNC/CFC/USFK Team.

This past August with the land mine attack and again in January with North Korea’s fourth nuclear test, the United States and Republic of Korea stood united and resolute against North Korea’s provocative actions. Our tenacity and combined actions are the product of established ROK-U.S. bilateral processes, the Alliance’s shared commitment to remain ready to “Fight Tonight,” and the alignment of American and Korean values and goals.

While the Command focuses on these core priorities, we are also looking to the future. In close partnership with our South Korean ally, the Alliance took concrete steps over this past year to enhance our ability to respond to North Korea’s evolving asymmetric capabilities, strengthen ROK forces to lead the combined defense of South Korea, and relocate U.S. forces to two enduring hubs south of Seoul.

2. AMERICA'S FUTURE IN KOREA – SECURING VITAL INTERESTS AND ADVANCING REGIONAL STABILITY

The UNC/CFC/USFK mission is vital to the broader effort to expand security and prosperity in the Asia-Pacific region. As a sub-unified Command of U.S. Pacific Command (PACOM), USFK's core responsibility is to maintain the Armistice, which enhances stability in the Asia-Pacific region and affirms America's treaty commitment to South Korea. We cooperate closely with PACOM in its mission to promote security cooperation, encourage peaceful development, respond to contingencies, deter aggression, and, when necessary, fight to win.

From my perspective, the level of U.S. engagement demonstrated by USFK in Korea and PACOM in the broader region is critical in this time of opportunity and challenge in Asia. Expanding ties among Asian countries and across the Pacific have helped facilitate an era of robust economic growth and military advances. While these advances promote global expansion and interdependent stability, international tensions have risen from the actions of several regional nations' military modernization and the use of national power. In this context of significant and rapid change, South Korea's neighbors are adjusting their strategies to shape the region's future.

China's continued pursuit of its military modernization program and land reclamation activities have prompted concerns among many nations in the region. Even as China's relations with North Korea remain strained, Beijing continues to support the North Korean regime, remains its largest trading partner due to China's desire for stability on the Korean Peninsula, and seeks to prevent spillover of North Korean issues.

Japan's decisions to take a more active role in its defense and to advance global security are viewed by many nations around the world as a positive development. Yet, some in China, South Korea, and North Korea have been critical, as historical issues continue to influence views on Japan's international role. In this complex setting, USFK continues to look for opportunities to advance trilateral military cooperation among the United States, Japan, and South Korea.

Over the past year, Russia has continued to expand its military presence, economic investment, and diplomatic engagement to reassert its strategic interests in the region. Russia conducted combined military drills with China in August, conducted multiple air patrols by its bombers throughout the region and into the Korean Air Defense Identification Zone, and named 2015 as a “Year of Friendship” between Russia and North Korea.

Unfortunately, North Korea has chosen not to embrace this era of change and prosperity, and has been omitted from many of the opportunities in 21st century Asia. Kim Jong Un, North Korea’s singular leader and the third generation of the Kim Family, exercises complete control over the state and military decision-making process focused on preserving the survival of his regime. He maintains an extensive internal security apparatus that addresses any challenges to his rule and he has openly replaced several top military leaders to solidify his authority. Kim also perceives that the regime’s survival relies on the domestic and international recognition of North Korea as a global and nuclear power. This January’s fourth nuclear test and February’s launch of a Taepodong 2 configured as a satellite launch vehicle – its fifth long-range missile launch since 2006 – further demonstrate that North Korea will continue to defy UN Security Council resolutions and international norms in its attempts to seek such status.

Similar to his father and grandfather, Kim has likewise demonstrated that violent provocations remain central to North Korea’s strategy. For example, this past August, North Korea carried out a heinous landmine attack in the DMZ that grievously wounded two Korean Soldiers. Later in the month, tensions rapidly intensified with the deployment of additional forces to the DMZ, psychological operations, and hostile rhetoric which required a strong, yet measured Alliance response. Even though our combined actions enabled national leaders from the two Koreas to resolve the situation diplomatically, it demonstrated North Korea remains a credible and dangerous threat on the Peninsula.

We continue to assess that North Korea recognizes it cannot reunify the Korean Peninsula by force with its large, but aging, conventional military. While it continues to train and man its conventional force, North Korea remains focused on improving its asymmetric capabilities: nuclear weapons, long-range ballistic missiles, and cyber programs. In addition to its fourth nuclear test, the regime conducted a

multitude of KN09 developmental multiple rocket launch system tests, as well as no-notice Scud and No Dong missile tests from a variety of locations throughout North Korea. Upgrades continued on the Taepodong Inter-Continental Ballistic Missile (ICBM) launch facility and development of a submarine-launched ballistic missile and vessel. Lastly, North Korea continued to improve its capabilities in the cyber domain which build on the regime's success of past cyberattacks.

Even as North Korea is investing heavily in asymmetric capabilities, its conventional military threats are still formidable. The KPA is the fourth-largest military in the world with several hundred ballistic missiles, the largest artillery force in the world with over 13,000 long-range and other artillery pieces, one of the largest chemical weapons stockpiles in the world, a biological weapons research program, and the world's largest special operations force. About three-quarters of its ground forces and half of its air and naval assets are within 60 miles of the Demilitarized Zone (DMZ). In the contested waters around the Northwest Islands and beyond the western end of the DMZ, North Korea has taken deliberate steps to strengthen its awareness and posture with additional navigation buoys, coastal observation posts, and naval patrols. These steps even include beginning construction of troop and weapon emplacements on Kal Do, an island less than three miles from Yeonpyeong Do, site of the 2010 North Korean shelling of South Korean military and civilian targets.

Due to these enduring and proximate threats, our Command must continue to deter North Korea's aggression as the risks and costs of a Korean conflict would be immense to South Korea, Northeast Asia, and the world. The region accounts for one-fifth of the world's economic output, 19% of global trade, five of the 13 largest economies, and four of the six largest militaries in the world. If deterrence fails, full-scale conflict in Korea would more closely parallel the high intensity combat of the Korean War than the recent wars in Iraq and Afghanistan. Furthermore, any conflict with North Korea would significantly increase the threat of the use of weapons of mass destruction.

3. THE COMMAND'S FOUR PRIORITIES – PROGRESS AND PROSPECTS

In the context of this unique strategic environment, the Command advances vital U.S. interests, strengthens the ROK-U.S. Alliance, and makes a critical contribution to security in the Asia-Pacific. This

year, we have made progress on each of our four priorities – first, to sustain and strengthen the Alliance; second, to maintain the Armistice, while remaining ready to “Fight Tonight” to deter and defeat aggression; third, to transform the Alliance; and, finally, to sustain the force and enhance the UNC/CFC/USFK Team.

A. Sustain and Strengthen the Alliance. Three key innovations this year have led to substantive improvements in the ability of U.S. and ROK forces to operate together as integrated and capable allies.

1. A new ROK-U.S. Combined Division improves interoperability. For more than 60 years, the Soldiers of the U.S. 2nd Infantry Division (2ID) have stood shoulder-to-shoulder with our ROK allies. This year, that enduring commitment was taken one step further through the transformation of 2ID into a Combined ROK-U.S. Division. This new organization integrates over 40 ROK Army officers into the 2ID headquarters, fostering mutual trust, combined decision-making, and open communications. In addition, a ROK Army mechanized brigade will habitually train with the Combined Division’s units to develop shared capabilities. If conflict comes to the Peninsula, this brigade will be attached to the Combined Division to create a seamless Alliance capability.

2. Rotational forces improve readiness. In order to increase the effectiveness and readiness of U.S. Forces on the Peninsula, USFK rotates specifically selected unit capabilities instead of maintaining permanently stationed units with Service Members on individual one-year tours. Fully manned, trained, and mission-ready rotational forces also provide the Alliance elevated capabilities over time by introducing a greater number of the U.S. Service Members to the unique aspects of contingency operations in Korea.

In the summer of 2015, the U.S. Army began rotating Brigade Combat Teams (BCTs) into South Korea for the first time, on nine-month tours as the 2nd Heavy Brigade Combat Team (HBCT) of the 1st Cavalry Division arrived from Fort Hood, Texas. Just two months after the unit arrived, the BCT was able to integrate with the ROK Army to conduct a combined and joint exercise. 2ID’s Combat Aviation Brigade has also increased its capabilities through the rotation of Aerial Reconnaissance Squadrons and

the Counter Fire Task Force expanded its combat power by adding a rotational Multiple Launch Rocket System (MLRS) battalion.

Rotation of fully-trained and resourced forces to the Korean Peninsula is not just an Army commitment. The U.S. Navy's Pacific Fleet ships and aircraft routinely exercise in the waters surrounding the Korean Peninsula as part of their regular rotation throughout the Pacific. Furthermore, the U.S. Air Force rotates both Active and Reserve Component fighter squadrons to Korea, while the U.S. Marines deploy air-ground teams to exercise and practice interoperability with the ROK Marine Corps.

3. *New capabilities improve the Alliance's defense and deterrence.* The ROK government has continued to invest approximately 2.5% of its Gross Domestic Product in its national defense – one of the highest rates among U.S. allies. During this past year, the Republic of Korea made progress in enhancing future interoperable-warfighting capabilities by procuring upgrades such as PAC-3 missiles for the Patriot Weapon System, multi-role tanker-transport aircraft, and the AEGIS command and control and weapons system. These follow previous investments in F-35 Joint Strike Fighters, Global Hawk high-altitude unmanned aerial vehicles, and other important assets. Once integrated into our Alliance force structure, these systems will further enhance our readiness and capability. Additionally, we announced this month that we will begin bilateral consultations regarding the viability of deploying the Terminal High-Altitude Area Defense (THAAD) system to the Republic of Korea to upgrade our combined missile defense posture.

B. Maintain the Armistice. Be Ready to “Fight Tonight” to Deter and Defeat Aggression. The Command's focus on readiness proved critical to answering North Korean provocations this past year. Our cooperation affirmed both countries' pledge to develop Alliance solutions to Alliance challenges.

1. *The Command maintains the Armistice and fosters stability on the Peninsula.* President Obama noted at his October meeting with President Park that, from the events of this August, “North Korea was reminded that any provocation or aggression will be met by a strong, united response by South Korea and the United States.” When crisis came, we were prepared. A constant focus on readiness and open communication enabled the Alliance to act deliberately and prudently. The Alliance's actions deterred broader North Korean provocations and set the stage for a peaceful resolution of the crisis.

2. *Three successful exercises enhance the Command's readiness.* UNC/CFC/USFK enhanced its readiness through its three annual multinational, combined, and joint exercises – KEY RESOLVE, FOAL EAGLE, and ULCHI FREEDOM GUARDIAN. KEY RESOLVE and ULCHI FREEDOM GUARDIAN are annual, computer-simulated command post exercises that focus on crisis management and the defense of South Korea. FOAL EAGLE is an annual field training exercise to ensure operational and tactical readiness. All three exercises provide realistic scenarios that prepare our forces, to include additional participants from the UNC, to deter and defeat North Korean aggression and potential instability in the region. They are essential in improving ROK-U.S. crisis management, combat readiness, and interoperability.

We also aligned USFK's readiness program on the Korean Peninsula with PACOM's regional efforts. In August 2015, USFK and PACOM integrated for the first time the Korea-based ULCHI FREEDOM GUARDIAN exercise and PACOM's PACIFIC SENTRY command and control exercise. This coordination allowed the Alliance to test effective decision-making and mutual support with PACOM.

3. *A revitalizing UNC strengthens the international contribution to Korea's defense.* Last year, we increased our efforts to further strengthen the engagement of the United Nations Command's 17 Sending States in our day-to-day operations. When North Korean aggression raises tensions, the Sending States provide credible and multinational support for the defense of the Republic of Korea.

To revitalize the UNC, we will continue to engage all of the Sending States to leverage their many capabilities for Korea's defense. A senior Australian officer on our staff leads a sustained effort to enhance Sending State engagement in UNC's work. The representatives of the UNC Sending States participate in our exercises, train with us, meet monthly with the Command's senior leadership, and assign top-quality officers to work in the Command. During the ULCHI FREEDOM GUARDIAN 2015 exercise, the Command greatly appreciated the 89 participants from seven UNC Sending States (Australia, Great Britain, Canada, New Zealand, Colombia, Denmark, and France).

C. Transform the Alliance. In 2015, the Command and the Alliance continued to adapt to face both emerging and evolving challenges.

1. *The MCM and SCM reaffirms ROK and U.S. commitment to defense cooperation.* Following the October meeting between President Obama and President Park, in which our two countries recommitted to a comprehensive and global Alliance, our senior defense officials met in November at the 40th ROK-U.S. Military Committee Meeting (MCM) and the 47th ROK-U.S. Security Consultative Meeting (SCM). They approved and agreed to implement a new concept to detect, disrupt, destroy, and defend (the “4Ds”) against North Korean missile threats; pledged to address global security challenges of mutual interest; strengthened cooperation in the space and cyberspace domains; reaffirmed a timely completion of the Yongsan Relocation Plan and Land Partnership Plan; identified critical military capabilities that the South Korean military must develop to meet the conditions of OPCON transition; and endorsed the Conditions-based Operational Control (OPCON) Transition Plan, or COT-P.

2. *The plan for conditions-based OPCON transition (COT-P) defines an effective way forward.* COT-P creates a well-designed pathway to implement a stable transfer of wartime OPCON of combined forces from the U.S. to the ROK. This Plan provides a road map for South Korea to develop the capabilities that will allow it to assume wartime Operational Control (OPCON) when the security environment on the Korean Peninsula and in the region is conducive to a stable transition.

3. *Effective military planning positions the Alliance to respond to a changing threat environment.* USFK regularly reviews and updates operations plans to ensure our readiness to respond to regional threats and crises. The combined ROK-U.S. operations plan has and will continue to evolve to enhance readiness and strengthen the ROK-U.S. Alliance’s ability to defend the Republic of Korea and maintain stability on the Korean Peninsula.

D. Sustain the Force & Enhance the UNC/CFC/USFK Team. Our Multinational-Combined-Joint Force continues to foster a positive Command Climate and focus on the welfare of our team.

1. *The Command fosters a positive Command Climate through trust and team-building.* The foundations of our organization and a positive Command Climate consist of effective communication, trust, and teamwork. Regular training on prevention of sexual harassment, sexual assault, and suicides continues to be a priority. The result is a strong record of Service Member discipline in South Korea.

Over 99.4% of our Service Members demonstrate their discipline and desire to be law-abiding, good neighbors in Korea.

2. Cohesive communities and new facilities promote Korea as an “Assignment of Choice.” This attention to the welfare of our entire team has been an important driver in making Korea an “Assignment of Choice.” Our realistic training against a real North Korean threat, cohesive community, the safety of our host country, and the brand-new facilities at Camp Humphreys welcome members of our military to serve on “Freedom’s Frontier.”

4. CRITICAL NEAR-TERM ALLIANCE TRANSITIONS

Northeast Asia is one of the world’s most dynamic regions. As a result, the Command’s success is not only contingent on our ability to meet our immediate requirements, but also on our flexibility to adapt in the strategic environment to new opportunities and challenges. While we focus our efforts on our four Command priorities, we are also making decisions and taking actions now that shape the future of our Command and Alliance. Longer-term success requires both steadfast advancement of the Command’s priority to maintain readiness to “Fight Tonight” and the agility to transform in the future.

A. Enhance the Alliance’s capabilities. As the North Korean threat evolves, its extensive asymmetric arsenal could be used at a time and location of its choosing. This creates indications and warning challenges for the Alliance which require the United States and South Korea to develop new capabilities to detect and defend against this threat.

1. Advance ISR, BMD, and critical munitions to sharpen our tools of deterrence. Together, both countries must constantly improve their intelligence, surveillance, and reconnaissance capacity; develop a robust, tiered ballistic missile defense; field appropriate command and control assets; acquire necessary inventories of critical munitions; and enhance the tools to prevent, deter, and respond to cyber-attacks.

2. The Tailored deterrence strategy underscores the U.S. commitment to the Peninsula. We have developed and refined a Tailored Deterrence Strategy, which serves as a strategic framework for tailoring deterrence against North Korean nuclear and ballistic missile threat scenarios. By providing a full range of ready military capabilities, including the U.S. nuclear umbrella, conventional strike, and missile

defense capabilities, this strategy supports deterrence and represents the U.S. commitment to provide and strengthen extended deterrence.

3. *The Combined Counter-Provocation Plan manages the risks of miscalculation.* We also have confidence in our Combined Counter-Provocation Plan. This plan improves our ability to respond to North Korean provocations as an Alliance, while managing the risks of miscalculation and escalation. The events of this August underscore how strong, yet measured responses set the conditions for diplomatic efforts to work.

B. Relocate the U.S. force in Korea. The Command made progress towards relocating the majority of U.S. forces in Korea to two enduring hubs south of Seoul – a Central Hub around the cities of Osan and Pyeongtaek, and a Southern Hub around the city of Daegu. The \$10.7 billion program is the largest single construction program in the Department of Defense and is well on its way to realizing its goal of modernizing the warfighting Command in Korea, improving the Command's effectiveness in deterring North Korea, and defending South Korea.

1. *Construction peaks as workers build facilities to triple the size of Camp Humphreys.* At the end of 2015, approximately 65% of the program was completed. Currently, at the peak of production, workers are constructing 655 new buildings, and remodeling or demolishing 340 existing buildings to accommodate the increase in population from approximately 12,000 to more than 36,000 Service Members, Families, Civilians, and other members of our community. The majority of new facility construction at Humphreys will be completed in 2016, and the majority of unit relocations will occur through 2018. During these transitions, we are committed to making relocation decisions with the effective defense of South Korea as our most important priority.

2. *U.S. Naval Forces Korea moves its headquarters to Busan, collocated with the ROK Navy.* The project at Camp Humphreys is not the Command's only move. This year, U.S. Naval Forces in Korea relocated the majority of headquarters staff from Yongsan Garrison in Seoul to the ROK Navy base in Busan, to enable the two navy staffs to work closer on a daily basis. This is the first U.S. headquarters located on a ROK base.

5. USFK'S CRITICAL NEEDS

My top concern remains that we could have very little warning of a North Korean asymmetric provocation, which could start a cycle of action and counter-action, leading to unintended escalation. To remain effective as the threat evolves, we seek four critical capabilities:

First, **Intelligence, Surveillance, and Reconnaissance**, or ISR. ISR remains my top readiness challenge and resourcing priority as CFC/USFK requires increased, multi-discipline, persistent ISR capabilities to maintain situational awareness and provide adequate decision space for USFK, PACOM, and National senior leaders. Therefore, among various spectrum, deep look, and full-motion video (FMV) capabilities, I also request dependable Moving Target Indicator (MTI) support combined with an airborne command and control and battle management capability. The ability to correlate MTI with other airborne sensor data in near-real-time, with a robust on-board communications ability, contributes to a deeper understanding of the North Korean threat and intent.

Second, **Command, Control, Communications, Computers, and Intelligence**, or C4I. Both the United States and South Korea are investing in new tactical equipment that will comprise a reliable C4I architecture. We must maintain this momentum in improving C4I capabilities and interoperability, so we can communicate from tactical to strategic levels and between units in the field.

Third, **Ballistic Missile Defense**, or BMD. North Korea's missile program continues to develop, so it is critical for the Alliance to continue to build a layered and interoperable BMD capability. The U.S. PATRIOT system provides important defensive capabilities, and I have previously recommended to both governments that they consider a high-altitude missile defense capability. Meanwhile, South Korea is moving forward in the development of its Korea Air and Missile Defense (KAMD) and "Kill Chain." We have also made progress in advancing the interoperability of Alliance BMD capabilities, but there remains work to do in this area, particularly to further refine interoperability between systems.

Fourth, **Critical Munitions**. The Command has identified specific munitions that it must have on hand in the early days of any conflict on the Peninsula. In this phase, the Alliance relies on the U.S. and ROK Air Forces air superiority to provide time for ready forces to flow into South Korea. In order to

ensure this supremacy through immediate Alliance capability and interoperability, we must have sufficient critical munitions on hand. Therefore, we will continue to work closely with the Republic of Korea to ensure it procures the appropriate types and numbers of critical munitions for the early phases of hostilities. Of note, the potential ban on cluster munitions could have a significant impact on our ability to defend South Korea.

With these capabilities, our Alliance will greatly improve its posture in Korea. If we continue to act together, with the consistent support we have experienced in both Washington and Seoul, I believe the Command and the Alliance will strengthen and ensure our capability to deter North Korea and defend South Korea and U.S. interests.

6. CONCLUSION

Over the past two-and-a-half years, I have seen steady progress in the U.S.-ROK Alliance. Last year, we were tested, and we found ourselves ready. Through annual exercises that rehearse U.S.-ROK cooperation, the commitment to readiness of U.S. and ROK armed forces, and our peoples' shared values and goals, UNC/CFC/USFK and the ROK-U.S. Alliance have successfully advanced our priorities and realization of our combined vision.

We are deeply thankful for the support of our South Korean partners and the UNC Sending States. We appreciate and value the continued support of Congress and the American people, as it is your support that allows us to undertake this critical mission.

It is my honor to serve with the American Soldiers, Sailors, Airmen, and Marines and our government civilians who serve in South Korea. Their presence and actions ensure freedom and the success of our objectives. Finally, we would like to recognize the leadership and support of senior U.S. and ROK civilian and military leaders, Ambassador Mark Lippert, and Admiral Harry Harris, as we support vital U.S. interests, strengthen the Alliance between the United States and the Republic of Korea, and make a critical contribution to security and prosperity in the Asia-Pacific.

Thank you, and I look forward to our discussion.

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

PUBLIC WITNESS STATEMENTS

Tragedy Assistance Program for Survivors (TAPS)

Consortium for Ocean Leadership

The Neurofibromatosis Network



STATEMENT FOR THE RECORD

**TRAGEDY ASSISTANCE PROGRAM FOR SURVIVORS (TAPS)
BEFORE THE
HOUSE OF REPRESENTATIVES
COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON DEFENSE**

April 5 2016

Tragedy Assistance Program for Survivors (TAPS) is the national organization providing compassionate care for the families of America's fallen military heroes. TAPS provides peer-based emotional support, grief and trauma resources, grief seminars and retreats for adults, 'Good Grief Camps' for children, case work assistance, connections to community-based care, and a 24/7 resource and information helpline for all who have been affected by a death in the Armed Forces. Services are provided to families at no cost to them. We do all of this without financial support from the Department of Defense. TAPS is funded by the generosity of the American people.

TAPS was founded in 1994 by Bonnie Carroll following the death of her husband in a military plane crash in Alaska in 1992. Since then, TAPS has offered comfort and care to more than 50,000 bereaved surviving family members. For more information, please visit www.TAPS.org

TAPS currently receives no government grants or funding.

Chairman Frelinghuysen, Ranking Member Visclosky, and other distinguished members of the Defense Subcommittee of the House Appropriations Committee, the Tragedy Assistance Program for Survivors (TAPS) thanks you for the opportunity to provide a statement on the quality of life issues of importance to surviving military families. We are appreciative of the work this subcommittee has done in the past to improve benefits for the survivors of those who have made the greatest sacrifice for our country.

Eliminate the DIC Offset to the SBP Annuity

The Tragedy Assistance Program for Survivors (TAPS) believes ending the Dependency and Indemnity Compensation (DIC) offset to the Survivor Benefit Plan (SBP) will provide the most significant long-term advantage to the financial security of all eligible surviving families. Although we know there is a significant price tag associated with this change, ending this offset would correct an inequity that has existed for many years.

Each payment serves a different purpose. The DIC is a special indemnity (compensation or insurance) payment paid by the Department of Veterans Affairs (VA) to the survivor when the service member's service causes his or her death. The SBP annuity, paid by the Department of Defense (DoD) reflects the longevity of the service of the military member. It is ordinarily calculated at 55 percent of retired pay.

Military retirees who elect SBP pay a portion of their retired pay to ensure that their family has a guaranteed income should the retiree die. If that retiree dies due to a service-connected disability, their survivor also becomes eligible for DIC. At present, the surviving spouse who is eligible for SBP and DIC receives the full DIC payment of \$1,254.19 (2014 rates) per month and the portion of the SBP payment offset by the DIC payment which varies upon the retiree's rank and length of service.

Surviving spouses whose service member died on active duty after September 11, 2001 are also eligible for both the SBP annuity and DIC payment. Surviving active duty spouses can make several choices, dependent upon their circumstances and the ages of their children. Because SBP is offset by the DIC payment, the spouse may choose to waive this benefit and select the "child only" option. In this scenario, the spouse would receive the DIC payment and the children would receive the full SBP amount until each child turns 18 (23 if in college), as well as the individual child DIC until each child turns 18 (23 if in college). Once the children have left the house, this choice currently leaves the spouse with an annual income from DIC of \$15,050 (2015 rates), a significant drop in income from what the family had been earning while the service member was alive and on active duty. The percentage of loss is even greater for survivors whose service members served longer.

TAPS hears from the eligible surviving spouses that we serve about the inequity of this offset. Many of the surviving spouses of junior service members receive no portion of their SBP annuity. Those who choose to designate their children as the SBP beneficiaries often find that the taxes the children are paying overwhelm the short term benefit of having the SBP go to their children. Add to that the difficulty of making those choices so soon after the death of the service member while still in the fog of grief.

It is unconscionable that this has been an issue for so many years and that survivors need to come back year after year to fight for this change only to be told the cost is too high. The cost was high to surviving families - those who gave their lives for their country deserve more fair compensation for their surviving spouses.

Eliminate the Dependency and Indemnity Compensation (DIC) offset to the Survivor Benefit Plan (SBP) to recognize the length of commitment and service of the career service member and spouse. We support H.R. 1594, which provides for that elimination. Funding must follow to eliminate the offset.

Special Survivor Indemnity Allowance

Congress has acknowledged the inequity of the offset in the FY2008 National Defense Authorization Act. Since October 1, 2008, surviving spouses whose SBP payments have been offset by DIC are eligible for the Special Survivor Indemnity Allowance (SSIA). What was viewed as an interim fix until the offset could be eliminated is due to terminate after Fiscal Year 2017. The monthly payments were incremented over a 10 year period but at its highest (\$310 in 2017) only covers about 1/3 of the amount lost by the DIC offset.

We ask that at the very least, the authority for the extension of the SSIA be included in the FY2017 National Defense Authorization Act so there is no interruption or, tragically, a termination of this payment to SBP-DIC widows. Funding is also necessary to facilitate this extension.

Extend the Special Survivor Indemnity Allowance beyond FY2017.

Military Compensation and Retirement Modernization Commission (MCRMC) Recommendation

The Commission listened to the concerns of retirees and surviving spouses about the inequity of the VA Dependency and Indemnity Compensation (DIC) offset to the Survivor Benefit Plan (SBP) annuity. However, we cannot support the recommendation put forth by the Commission giving retired service members the option of funding the elimination of the offset by paying a higher premium.

We have concerns about the Commission's proposed changes to the SBP premium structure. This would provide no relief to the 60,000 surviving widows/widowers who would be no better off than they are now - continuing to have their SBP annuity offset by their DIC payment. Congress needs to address the elimination of the offset to those who pay the premium and don't receive their complete benefit now! Only 8 percent (4580) of SBP/DIC recipients are active duty death surviving spouses. Over 57,500 are the surviving spouses of retirees who have paid SBP premiums subsidized by DoD.

The payment of the DIC is the responsibility of the VA regardless of what other insurance or annuity the survivor may be eligible for. No other survivors of federal employees (former military members) are subject to the offset when they receive both a survivor annuity and the DIC. Surviving children receiving SBP are not subject to the offset. Since the retiree already pays a premium for SBP, why should he/she also subsidize the payment of the VA DIC annuity?

Increasing the SBP premium to 11.25 percent would discourage retirees from signing up for the higher coverage unless they were severely disabled and had no other options. Those with severe disabilities who have been medically retired may be least financially able to pay higher premiums even though their survivors would have the greatest stake in having the offset eliminated.

How are the needs of survivors of those who die on active duty affected by this recommendation? The Commission did not address this and we have questions on where the funding would come from to fully fund the concurrent receipt of DIC and SBP?

TAPS cannot support asking the retiree to fund both the unsubsidized portion of the SBP and the VA provided DIC payment on the chance that he/she may die of a service-connected disability.

SBP for Inactive Duty for Training Deaths

We often hear from surviving families about the inequity of survivor benefits for those whose reserve component service member died while performing inactive duty training. In the throes of their grief, thinking that their loved one was performing military duty, they are told that the SBP annuity they will receive will be substantially less than if he/she were on active status. This is unfair.

The Eleventh Quadrennial Review of Military Compensation (released in June 2012) agreed that this was unfair. Despite their inactive status, these reservists are still performing military duties at the time of their death. The report recommends calculating SBP benefits for a reservist who dies while performing inactive duty training using the same criteria as for a member who dies while on active duty.

Calculate Survivor Benefit Program annuities for a reservist who dies while performing inactive duty training using the same criteria as for a member who dies while on active duty.

It is the responsibility of the Nation to provide for the support of the loved ones of those who have paid the highest price for freedom. Thank you for allowing us to speak on their behalf.

House Appropriations Committee, Defense Subcommittee
 [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: 800-959-8277 Kathleen Moakler Tragedy Assistance Program for Survivors (TAPS) 3033 Wilson Blvd. Arlington VA 22201
1. Are you appearing on behalf of yourself or a non-governmental organization? Please list organization(s) you are representing. Tragedy Assistance Program for Survivors (TAPS)
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 ☒ 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 ☒ 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: Kathleen B. Moakler Date: 3/29/16

**Testimony of RADM Jonathan White, USN (Ret.)
President and CEO of the Consortium for Ocean Leadership
Before the House Appropriations Committee Subcommittee on Defense
Regarding Naval Science and Technology Capabilities
April 6, 2016**

On behalf of the Consortium for Ocean Leadership (Ocean Leadership), I appreciate the opportunity to discuss our funding priorities for the Fiscal Year 2017 (FY17) Defense Appropriations Act. Ocean Leadership represents the ocean science, education, and technology community, with the mission to shape the future of ocean sciences. Ocean science strengthens our national security, supports a safe and efficient marine transportation system, underpins our economy, and furthers understanding of complex ocean and coastal processes important to our everyday lives – today and tomorrow.

Admiral James Watkins, former Chief of Naval Operations, remarked on numerous occasions that oceanography was a key determinant in the U.S. Cold War “victory,” due to the knowledge advantage provided to our forward deployed maritime forces, especially our submarines. We are firmly convinced that ocean science and technology today can and must provide us with the same knowledge advantage against the myriad maritime threats we face today.

The academic research community has enjoyed a long and productive partnership with the U.S. Navy in helping to ensure maritime military readiness, domain awareness, and warfighting advantage. This success has its foundation in sustained investment in supporting science and technology programs implemented through the 6.1, 6.2, and 6.3 programs. The 3rd Offset Strategy highlighted by Secretary of Defense Carter and other service leaders in recent congressional testimony¹ acknowledges the increasing competition in science and technology by other nations that are challenging U.S. military superiority. Investments in science and technology now are crucial to ensuring future capabilities, which take time and sustained funding to nurture through the research and development process and integrate into the operational battlespace. A good example of this is the continued acceleration of Autonomous Undersea Vehicles (AUV) and other ground-breaking submarine technology usage in the undersea environment by the Navy and Department of Defense (DOD). The impact of the ocean environment on these systems is even more pronounced than it was for the manned and tethered systems of the past. Acoustic advantage; endurance and energy consumption; autonomy; and effective command, control, and communications for AUV are heavily influenced by the ocean conditions. These conditions must be measured, modeled, and accurately predicted to ensure undersea warfare advantage is maintained against a global, undersea threat that is ever-growing in complexity and proliferation. Basic ocean research provides the critical foundation to ensure continuity of our undersea knowledge superiority that generates warfare advantage. Simply put, our undersea forces must be able to win every “away game,” and we therefore must be able to exploit the ocean environment to ensure “home field advantage” at those “away games.”

In order to ensure our nation can maintain maritime battlespace superiority in an increasingly unstable world, Ocean Leadership respectfully requests the Subcommittee oppose the significant cuts in funding proposed in the President’s FY17 Budget Request, and provide the Navy with no less than the science and technology funding levels appropriated in the FY16 omnibus spending

<http://www.defense.gov/News/Speeches/Speech-View/Article/606641/the-third-us-offset-strategy-and-its-implications-for-partners-and-allies>

bill, which were \$671 million for 6.1 basic research, \$967 million for 6.2 applied research, and \$697 million for advanced technology development. Ensuring sustained funding support for Navy science and technology programs (which represents a small fraction of the overall Navy budget) is key to ensuring that the culture of innovation and initiative that the DOD has prioritized (internally as well as with its non-federal research partners) will permit the U.S. to stay ahead of the rapid changes in the technology and the human-machine interface that are being pursued by our rivals.

Intelligence Advantage Through Ocean Knowledge

As defined by the Navy, Maritime Domain Awareness (MDA) is the “effective understanding of anything associated with the maritime domain that could impact the security, safety, economy, or environment of the United States².” MDA is comprised of situational awareness (observable and known) and threat awareness (anticipated or suspected) – a mix of operational intelligence, and environmental data and information. Whether it is ocean observations, remote sensing, or ocean modeling, a better understanding of the ocean significantly enhances MDA. The security advantage gained through increased ocean knowledge is not limited to the warfighting arena. Beyond situational awareness contributions of forward-deployed naval forces, information and intelligence capacities of Navy and the intelligence community (e.g., CIA, NSA, DIA, NGA) benefit from basic and applied research programs, as well as partnerships with academic institutions supporting robust ocean observations and monitoring to enhance threat awareness.

Long-term Commitment to People, Platforms, and Partnerships

The Navy and DOD have a distinguished history of fostering the science and technology that has been responsible for U.S. military success and superiority. There is growing concern that this superiority is being challenged by a significant increase in investment by our rivals, while funding support for science and technology within DOD and the Navy has languished. This is particularly apparent in the proposed reduction in the Navy 6.1 funding request included in the President’s budget, which would result in an approximately 20 percent decrease in resources.

It is hard to overemphasize the significant advantages that have resulted from Navy support for basic research, including highly trained people, cutting-edge technology, and innovative ideas. The advantage and benefits that have accrued to DOD and the Navy cannot be attributed solely to the amount of investment; equally important is the Office of Naval Research’s culture that understood the importance of providing *sustained* support for technology development and the cultivation of researchers, including early career and established scientists (internally and among its academic partners). The cultivation of people and technology in support of national security priorities is well beyond the mission and role of other federal agencies supporting ocean science, such as the National Science Foundation and the National Oceanic and Atmospheric Administration. For example, the U.S. Navy’s competitive advantage in undersea warfare research relies on the ability to execute unique data collection systems and sea-going expertise. The backbone for these programs is comprised of partnering scientists, expert engineers, and technicians with decades of experience in executing research at sea.

It is also important to recognize the important role science and technology funding plays in the development of new technology (e.g., sensors, platforms, models, data analytics) that are essential to helping the Navy meet its mission requirements. Much of the oceanographic equipment in use today, for defense and nondefense research, observations, and modeling, has

² https://www.dhs.gov/sites/default/files/publications/HSPD_MDAPlan_0.pdf

resulted from Navy investment in its development, as well as its integration to defense and non-defense at-sea platforms and in research labs through the Defense University Research Instrumentation Program. Unfortunately, the level of investment in technology development has seriously declined in recent years, with greater focus being placed on the transition of applied technology into operations. The negative impacts of this shift in emphasis and support will be realized in future years as the flow of new technologies and their application to Navy mission requirements slows just as the increased investments by rivals begins to bear fruit. The Workforce Research team at the American Geosciences Institute calculated that there will be a shortfall of 135,000 geoscientists in the U.S. workforce over the next decade. We can ill afford to have a shortage of these workers who are vital for the national security community.

Given the critical importance of ocean knowledge in both the warfighting arena and in threat awareness, the ocean science community greatly appreciates the Subcommittee's continuing recognition of the importance of the Auxiliary General Oceanographic Research (AGOR) research vessels fleet. Ocean Leadership strongly supports inclusion of adequate funds in the 6.2 account to complete the Service Life Extension Program of the AGOR-23 class, which adds 10-15 years of life to the vessels and ensures the availability of unique platforms capable of performing multidisciplinary, high endurance missions that support Navy information needs around the globe. There is also concern that the Navy does not have a long-term plan to recapitalize its operational oceanographic survey ship fleet. The T-AGS 60 Pathfinder class will begin to exceed their planned life expectancy within the next decade, and it is imperative that replacement ships be included in the Navy's long-term ship building plan.

Navigating Changing Ocean Conditions

The Department of Defense Climate Change Adaptation Roadmap³ and both of the most recent Quadrennial Defense Reviews^{4,5} have recognized that changing climate is a threat to national security, and its effects must be assessed and addressed through adaptation. The melting of sea ice, acidification of the seas, decay of large ice sheets, and the melting of permafrost are just some of the ways the polar regions have responded to changing ocean and atmospheric conditions. Half of the world's population lives within 60 km of the ocean, 75 percent of all large cities are on the coast⁶, and the U.S. coastal population is expected to increase by an additional 10 million people by 2020⁷. As many as 650 million people across the world are at risk from rising seas by the end of the century.⁸ Just this year we've begun to see a slowdown of ocean circulation in the Atlantic⁹, which is symptomatic of broader changes in global ocean circulation patterns that directly impact military operations (e.g., anti-submarine warfare), while also affecting storm and drought intensity (and the concomitant humanitarian response implications) and the chronic -but significant- concerns surrounding the rate of sea level rise on naval installations and facilities.

With the ocean providing 20 percent of the animal protein in the human diet¹⁰ and 24 percent of global land degrading (25 percent rangeland, 20 percent cropland)¹¹, it is understandable that

³ <http://www.acq.osd.mil/te/download/CCARprint.pdf>

⁴ http://www.defense.gov/Portals/1/features/defenseReviews/ODR/ODR_as_of_29JAN10_1600.pdf

⁵ http://archive.defense.gov/pubs/2014_Quadrennial_Defense_Review.pdf

⁶ http://www.unep.org/urban_environment/issues/coastal_zones.asp

⁷ <http://oceanservice.noaa.gov/facts/population.html>

⁸ <http://www.climatecentral.org/news/new-analysis-global-exposure-to-sea-level-rise-flooding-18066>

⁹ Rahmstorf, S., et al. 2015. Exceptional twentieth-century slowdown in Atlantic Ocean overturning circulation. *Nature Clim. Change* 5, 475-480 (2015)

¹⁰ http://www.education.noaa.gov/Ocean_and_Coasts/

Illegal, Unregulated and Unreported Fishing (IUU) and desertification are not only food security issues, but ultimately ones of national security. Whether considering ocean conditions to better understand drought forecasts or to model changes in fish distributions, data and information from the sea strengthen the Navy's awareness of conflict catalysts. The basic and applied research lines, robust partnerships and collaborations with ocean science and technology institutions, and in-house surveying capabilities all support the increase of ocean knowledge for our nation's security advantage.

Through threatened freshwater sources (due to saltwater intrusion), loss of protein sources, loss of land, and increases in disease and other human health concerns¹¹, human populations living within coastal zones across the globe are the groups to be impacted most directly by a changing ocean. Displacement or abandonment, mass migrations, and conflict over resources are real security threats both on the coasts and inland. Changes in ocean conditions directly associated with access in the Arctic lead to expanded navigation and commerce in the Arctic (e.g., shipping, fishing, oil and gas exploration, bioprospecting, mining) and could result in disputes amongst nations or accidents requiring search and rescue or other response.

To maintain global stability, it is critically important that the nation understands the factors of conflict catalysts. To successfully navigate a changing physical, chemical, and biological ocean while maintaining geopolitical establishments, the Navy must understand the ocean and coastal baseline conditions, changing conditions, forecasted conditions, the vulnerabilities of undersea and coastal infrastructure, and the threatened human population. The changing climate and ocean systems are altering when and where our military may be called to duty, but also *how* the military can respond. Rising sea-levels affect amphibious landing opportunities, and extreme weather could impact deployment, intelligence, surveillance, and reconnaissance capabilities. It is through the robust federal support of the Navy's basic and applied research, maintaining superiority in technology development and integration, and through collaborative partnerships with ocean science and technology institutions that this will happen.

The ocean science and technology community is very grateful for the support that the Defense Subcommittee has provided for oceanographic research, and we hope that you will continue to prioritize science investments to ensure the U.S. can maintain its superiority at sea. We greatly appreciate your consideration of our recommendations and are available to discuss these recommendations with you further at your earliest convenience.

Below is a list of the institutions that participate in the Consortium for Ocean Leadership.

¹¹ http://www.un.org/en/events/desertification_decade/value.shtml

¹² <http://widenerlawreview.org/files/2011/04/07-KUINDIS-CRAIG-Final.pdf>

Alabama

Dauphin Island Sea Lab

Alaska

Alaska Ocean Observing System

Arctic Research Consortium of the United States (ARCUS)

North Pacific Research Board

University of Alaska Fairbanks

California

Aquarium of the Pacific

Bodega Marine Lab

Esri

Hubbs-SeaWorld Research Institute

L-3 MariPro, Inc.

Liquid Robotics, Inc.

Monterey Bay Aquarium Research Institute

Moss Landing Marine Laboratory

Naval Postgraduate School

Romberg Tiburon Center for Environmental Studies

Stanford University

Teledyne

University of California, San Diego (Scripps)

University of California, Santa Barbara

University of California, Santa Cruz

University of Southern California

Colorado

Cooperative Institute for Research in Environmental Sciences (CIRES)

Connecticut

University of Connecticut

Delaware

Mid-Atlantic Regional Association Coastal Ocean

Observing System (MARACOOS)

University of Delaware

Florida

Earth2Ocean, Inc.

FAU Harbor Branch Oceanographic Institute

Florida Institute of Oceanography

Mote Marine Laboratory

Nova Southeastern University

University of Florida

University of Miami

University of South Florida

Georgia

Savannah State University

Skidaway Institute of Oceanography of the University of Georgia

Hawaii

University of Hawaii

Illinois

John G. Shedd Aquarium

Louisiana

Louisiana State University

Louisiana Universities Marine Consortium (LUMCON)

Maine

Bigelow Laboratory for Ocean Sciences

The IOOS Association

University of Maine

Maryland

John Hopkins University

National Aquarium

University of Maryland Center for Environmental Science

Massachusetts

Massachusetts Institute of Technology

University of Massachusetts, Dartmouth

University of Massachusetts, Lowell

Woods Hole Oceanographic Institution

Michigan

University of Michigan

Mississippi

University of Mississippi

University of Southern Mississippi

New Hampshire

University of New Hampshire

New Jersey

Monmouth University Urban Coast Institute (UCI)

Rutgers University

New York

Columbia University (LDEO)

Stony Brook University

North Carolina

Duke University Marine Laboratory

East Carolina University

North Carolina State University

University of North Carolina at Chapel Hill

University of North Carolina at Wilmington

Oregon

Oregon State University

Pennsylvania

Pennsylvania State University

Rhode Island

University of Rhode Island

South Carolina

South Carolina Sea Grant Consortium

University of South Carolina

Texas

Fugro

Harte Research Institute

Sonardyne, Inc.

Texas A&M University

University of Texas at Austin

Virginia

CARIS, USA

CNA

College of William and Mary (VIMS)

Institute for Global Environmental Strategies (IGES)

Old Dominion University

U.S. Arctic Research Commission

Washington

Sea-Bird Scientific

University of Washington

Washington, DC

Marine Technology Society

National Ocean Industries Association (NOIA)

Southeastern Universities Research Association (SURA)

Wisconsin

University of Wisconsin-Milwaukee School of Freshwater Sciences

[House Appropriations Committee Subcommittee on Defense]

Witness Disclosure Form

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Your Name, Business Address, and Telephone Number:

RADM Jonathan White, USN (Ret.)
1201 New York Ave., N.W.; 4th Floor
Washington, D.C., 20005
202.448.1240

1. Are you appearing on behalf of yourself or a non-governmental organization?

Please list organization(s) you are representing.
Consortium for Ocean Leadership

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

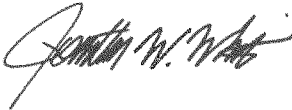
3. Have you or any organization you are representing received any contracts or payments originating with a foreign government since October 1, 2012 related to the agencies or programs funded by the Subcommittee?
No

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.

All grants below were received by Consortium for Ocean Leadership.

Agency	Program	Grant	Award #	Amount
DOD	Office of Naval Research	National Ocean Partnership Program	N00014-07-D-0829-002	359,284.00
DOD	Office of Naval Research	National Ocean Sciences Bowl	N00014-13-1-0218	229,961.00
DOD	Office of Naval Research	National Ocean Sciences Bowl	N00014-14-1-0193	230,703.00
DOD	Office of Naval Research	National Ocean Sciences Bowl	N00014-15-1-2050	242,406.00
				1,062,354.00

Signature:



Date: 6 April 2016

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 the Department of Defense's Peer-reviewed Neurofibromatosis (NF) Research Program (NFRP). NF is a terrible genetic disorder closely linked to many common diseases widespread among the American population. The highly successful Neurofibromatosis Research Program has shown tangible results and direct military application with broad implications for the general 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, bone abnormalities, deafness, blindness, and psychosocial disabilities, such as autism 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.

In Fiscal Year 2017, we are requesting **\$18 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 an unpredictable genetic disorder of the nervous system that affects almost every organ system in the body. 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 causes tumors to grow along nerves including in the skin, just below the skin, and in the brain and spinal cord. NF is the most common neurological disorder caused by a single gene and affects more people than Cystic Fibrosis, hereditary Muscular Dystrophy, Huntington's disease and Tay Sachs combined. 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 can cause a myriad of devastating clinical problems including nerve and brain tumors; disfiguring skin growths; inability to heal after bone fracture, which may ultimately require amputation; psychosocial disabilities, including autism and learning disabilities; unmanageable chronic pain; deafness; blindness; cardiovascular defects; vascular disease; muscle weakness; and paralysis. NF gene mutations are also important 'drivers' of cancers in the lungs, liver, brain and breast.

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, 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.

Vascular Disease and Wound Healing - NF1 elevates the risk of vascular disease including aneurysm, stroke and vessel occlusive disease. This can cause premature death, particularly in younger patients. In addition NF1 seems to make small blood vessels around wounds less able to heal. This research will help develop markers for early detection of vascular changes that can predict those at risk of potential forthcoming cardiovascular events as well as developing treatments for this and to increase wound healing capacity which is of great relevance to the warfighter.

Psychosocial Disabilities - 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 Congressionally Directed Medical Research Program (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 FY16 funding for the NFRP has amounted to \$302.85 million, in addition to the original \$8 million appropriated in FY92. In addition, between FY96 and FY14, 332 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, sit 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, hearing tumors, vision tumors, bone graft and cognitive disorders;
- Establishment of the Neurofibromatosis Clinical Trial Consortium which includes an operation center and 19 clinical sites. Allows for partnerships with well-established NF

Centers, pooling expertise and resources, quicker turn arounds of scientific reviews and regulatory approvals, leveraged work with pharmaceutical companies all towards the common goal of new treatments and a cure for Neurofibromatosis;

- 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 in mice with an already existing well known 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 2017 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 \$18 million in the Fiscal Year 2017 Department of Defense Appropriations bill for the Peer-reviewed 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.

Your Name, Business Address, and Telephone Number: <i>Kim Bischoff</i> <i>NeuroFibromatosis Network</i> <i>213 S. Wheaton Ave.</i> <i>Wheaton, IL 60187</i> <i>630-510-1115</i>
1. Are you appearing on behalf of yourself or a non-governmental organization? Please list organization(s) you are representing. <i>NeuroFibromatosis Network</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 ☒ 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 ☒ 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:

Kim Bischoff

Date:

4/4/2016

WITNESSES

	Page
Aguilar, Hon. Pete	29
Austin, General L. J., III	163
Bischoff, Kim	420
Blumenauer, Hon. Earl	29
Bono, Vice Admiral R. C.	215
Bost, Hon. Mike	29
Breedlove, General P. M.	1
Bridenstine, Hon. Jim	29
Brooks, Hon. Mo	29
Byrne, Hon. Bradley	29
Carter, Hon. E. L.	29
Clay, Hon. William	29
Cook, Hon. Paul	29
Ediger, Lieutenant General M. A.	215
Faison, Vice Admiral C. F., III	215
Gibson, Hon. Chris	29
Harris, Admiral H. B., Jr.	367
Kennedy, Hon. J. P.	29
Lieu, Hon. Ted	29
McSally, Hon. Martha	29
Meehan, Hon. Patrick	29
Moatler, Kathleen	408
Reichert, Hon. Dave	29
Scaparrotti, General C. M.	367
Thompson, Hon. Glenn	29
Tsongas, Hon. Miki	29
Valado, Hon. David	29
Wagner, Hon. Ann	29
West, General Nadja	215
White, RADM Jonathan	414

