

**UNITED STATES SPECIAL OPERATIONS  
COMMAND'S EFFORTS TO TRANSFORM  
THE FORCE FOR FUTURE SECURITY  
CHALLENGES**

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**HEARING**

BEFORE THE

SUBCOMMITTEE ON  
EMERGING THREATS AND CAPABILITIES

OF THE

COMMITTEE ON ARMED SERVICES  
UNITED STATES SENATE

ONE HUNDRED FIFTEENTH CONGRESS

SECOND SESSION

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**WEDNESDAY, APRIL 11, 2018**

UNITED STATES SENATE,  
SUBCOMMITTEE ON EMERGING  
THREATS AND CAPABILITIES,  
COMMITTEE ON ARMED SERVICES,  
*Washington, DC.*

The subcommittee met, pursuant to notice, at 10:00 a.m. in Room SR-232A, Russell Senate Office Building, Senator Joni Ernst, chairman of the subcommittee, presiding.

Members present: Senators Ernst, Wicker, Fischer, Sullivan, Heinrich, and Peters.

**OPENING STATEMENT OF SENATOR JONI ERNST**

Senator ERNST. Good morning. It is 10 hundred, or 10 o'clock. For all of the folks here, I want to thank you for attending this morning's Emerging Threats and Capabilities Subcommittee. We will go ahead and start.

Just to let our audience know, we will be in open session for a period of time. We will then be required to go into a closed session, and we'll need to move locations. The closed session location, for our panelists, will be SVC-217. That, again, will be at the closing of the open session. So, we'll remind you again here in 40 to 45 minutes or so.

Good morning. I am Senator Joni Ernst, from Iowa. We will meet today to receive testimony from Special Operations Command, or SOCOM, senior leaders on efforts to transform the Special Operations Force for future security challenges. I believe this is the first time we have had all of our SOCOM component commanders before this committee, and we welcome you gentlemen here.

I would like to introduce all of you very briefly, and then I'll make some opening statements, and Senator Heinrich will also make some opening statements before we begin with your testimony.

We have with us Lieutenant General Scott A. Howell, United States Air Force, Vice Commander, United States Special Operations Command—thank you, sir; Lieutenant General Kenneth E. Tovo, United States Army, Commanding General, United States Army Special Operations Command; Lieutenant General Marshall B. Webb, United States Air Force, Commander, USAF Special Op-

erations Command; Rear Admiral Timothy G. Syzmanski, United States Navy, Commander, Naval Special Warfare Command; and Major General Carl E. Mundy III, United States Marine Corps, Commander, Marine Corps Special Operations Command.

Gentlemen, again, want to thank you very much for being here today.

The National Defense Strategy reoriented the way the Department of Defense prioritizes its efforts in an increasingly complex and dangerous global security environment. A rising China and an increasingly belligerent Russia are now the Department's top strategic priorities, while Iran, North Korea, and countering violent extremism remain enduring lines of effort.

Over the last 16-plus years, SOCOM has largely focused its efforts on executing its role as a leader in the global counterterrorism fight. As a result, SOCOM's organization, tactics, techniques, procedures, and its development of capabilities has reflected this mission set. While it's clear that counterterrorism will remain a persistent mission of SOF [Special Operations Forces], the severity of the threat posed by China, Russia, and other adversarial nation-states demand increased attention by our Nation's most agile and innovative force to ensure they're postured to fight and win.

In testimony earlier this year before this committee, General Tony Thomas, Commander of SOCOM, stated that, "As we focus on today's operations, we must be equally focused on required future transformation. SOF must adapt, develop, procure, and field new capabilities in the interest of continuing to be a unique, lethal, and agile part of the joint force of tomorrow." In particular, he identified emerging technologies, such as, "Cyber, next-generation, low-observable infiltration platforms, airborne high-energy laser applications, automation, and machine learning as capabilities key to future success on the battlefield."

I look to our witnesses to describe what they're doing to support General Thomas's transformation priorities, as well as implement the new National Defense Strategy. Specifically, I want our witnesses to provide their assessment of the future operating environment likely to confront their forces, as well as provide a description of what they are doing to ensure their forces are organized, trained, and equipped to succeed.

With that, Senator Heinrich.

#### **STATEMENT OF SENATOR MARTIN HEINRICH**

Senator HEINRICH. Thank you.

Let me start by just thanking Senator Ernst for holding this hearing on the efforts of SOCOM's service component commands to transform our Special Operations Forces for the missions that they may be asked to conduct in the future.

New Mexico is the proud home to a significant AFSOC [U.S. Air Force Special Operations Command] presence. But, to be transparent, I would welcome any of your components in the future.

Since 9/11, the vast majority of special operations activities have really been focused on defeating al-Qaeda and on defeating ISIS [Islamic State of Iraq and Syria] while seeking to prevent the emergence of other violent extremist groups. However, the recently released National Defense Strategy, or NDS, states that the central

challenge facing our Nation is the reemergence of long-term strategic competition with Russia and China, and that this competition replaces terrorism as the primary concern in national—U.S. national security. This strategic prioritization raises some pretty important questions with respect to the readiness of our Special Operations Forces to conduct the most sensitive and, in many cases, highest-risk missions tasked to the military. Our Special Operations Forces will surely continue to play a central role in addressing the threat posed by violent extremist groups, but are also increasingly likely to be engaged in so-called hybrid warfare or gray-zone conflict, below the threshold of traditional armed conflict. The current demand for special operations capabilities already outstrips supply. Under the new NDS, such capabilities are likely to be stretched even further. Just last year, the SOCOM Commander, General Thomas, stated that, “Most SOF units are employed to their sustainable limit.”

In the coming years, I understand that SOCOM is on track to grow by approximately 2,000 personnel, to reach a size of about 72,000 overall. While this growth will help ease the burden, to some degree, we need to be thoughtful in our employment of Special Operations Forces, to preserve the readiness of our highest-demand, lowest-density capabilities. This will require careful prioritization by senior military leadership in coming years.

While Special Operations Forces retain the capability to operate in sensitive environments, some core skills, including foreign language proficiency, may need to be reemphasized in their training. Additionally, new secure communications, intelligence-gathering, directed energy, and nonlethal weapons capabilities may also be required for our Special Operations Forces to be successful. The growing use of social media and other means of communication by both state and nonstate actors to influence vulnerable populations is also a concern for the special operations enterprise.

I note that SOCOM is the joint proponent for military information support operations and has been directed by the Secretary of Defense to establish a centralized global messaging/counter-messaging capability. I’m pleased to see the Department taking these challenges seriously, but I believe we must also fundamentally reevaluate the training and readiness of our military information support or psychological operations personnel to maximize their effectiveness. Our adversaries have demonstrated innovation and flexibility in the information environment, and we must find a way to move beyond the traditional leaflets-and-loudspeakers approach to keep pace.

I look forward to hearing from each of you.

Senator ERNST. Thank you, Senator.

We will start with Lieutenant General Howell. Sir, if you would, please.

**STATEMENT OF LIEUTENANT GENERAL SCOTT A. HOWELL,  
USAF, VICE COMMANDER, U.S. SPECIAL OPERATIONS COM-  
MAND**

Lieutenant General HOWELL. Chairwoman Ernst, Ranking Member Heinrich, distinguished members of the committee, good morning, and thank you for the opportunity to meet with you today.

As the Vice Commander for U.S. SOCOM, I'm honored to represent General Thomas and your United States Special Operations Command alongside our component commanders. We greatly appreciate the opportunity to discuss the Command's efforts to transform against the emerging threats and capabilities of our adversaries, with a particular focus on near-peer competitors.

As General Thomas testified in February, your U.S. Special Operations Forces are relevant against all our country's national security priorities. With nearly 8,000 members deployed in over 90 countries, our forces are postured, ready, and relentlessly focused on winning today's fights. From countering violent extremism to countering weapons of mass destruction, from rogue regimes to near-peer adversaries, Special Operations Forces continue to provide the geographic combatant commanders options to protect our Nation, our allies, and our interests worldwide.

However, as the National Defense Strategy outlines, the global security environment is rapidly changing. Correspondingly, SOCOM is transforming at an ever-increasing pace. Today, you'll hear from each of our service component commanders on how their commands are meeting the challenge.

Comprising just 2 percent of the defense budget and 3 percent of the manpower, Special Operations Forces play a critical role in addressing the Nation's priority security challenges and provide an extraordinary return on investment. But, as one of ARSOF [U.S. Army Special Operations Forces] truths state, most special operations require non-SOF assistance. The additional support the military departments provide to each of our service components, estimated about \$8 billion annually, plays an essential role in the success of our force.

The continued support and trust of this committee to U.S. SOCOM and our service components and the military departments has been crucial in maximizing these dividends.

Madam Chairwoman, you've already introduced my colleagues here alongside us. I will just say, these commanders provide superior leadership to their respective organizations and a clear vision for the transformation required to ensure special operations remains at the forefront in addressing emergency—emerging threats and capabilities.

Pending any immediate questions for me, I'll ask each component commander to provide brief remarks to the committee. We look forward to the discussion.

Senator ERNST. Thank you, General.  
General Webb.

**STATEMENT OF LIEUTENANT GENERAL MARSHALL B. WEBB,  
USAF, COMMANDER, U.S. AIR FORCE SPECIAL OPERATIONS  
COMMAND**

Lieutenant General WEBB. Chairwoman Ernst, Ranking Member Heinrich, distinguished members of the committee, I'm honored to appear before you as the Commander of Air Force Special Operations Command and your superb Air Commandos. Today, I will discuss AFSOC's efforts to ensure lethal readiness and relevance against the full spectrum of our Nation's potential adversaries.

As United States Special Operations Command's air component, we continuously strive to hone capabilities and evolve our force to remain ready, relevant, and resilient, our three AFSOC priorities.

I want to express my gratitude for the resources projected in Presidential Budget 2019, as these will fully fund our current requirements and will help us turn a strategic corner as we engage in great-powers competition. In line with the National Defense Strategy, AFSOC has the duty and opportunity to shape specialized airpower to accentuate both the far low end and high end of the conflict spectrum.

As General Thomas testified before your committee 2 months ago, Special Operations' unique capabilities are in high demand across the globe. For 17 years, AFSOC has been laser focused on counterterrorism operations. This has accelerated the AFSOC operations tempo and has drawn our efforts towards the low end of the conflict spectrum. We realize these efforts are predominantly long-term engagements in which cumulative tactical effects lead to long-term strategic impact. To make such engagements successful, AFSOC must lower the resource and opportunity costs of conducting persistent counterterrorism operations. Conversely, AFSOC operations on the high end are predominantly those that deliver strategic impact in a short amount of time. AFSOC must be capable and flexible in order to confront competitors across the range of potential conflicts and areas. We must develop a force that is more lethal and resilient in contested environments.

This brings me to AFSOC's first priority: readiness. AFSOC must build full-spectrum readiness while ensuring that we are postured to fight tonight. We are invested in virtual, adaptive, and realistic training to build readiness beyond traditional means. Using virtual reality to integrate live training environments with simulators reduces training costs, lowers personnel tempo, and engages us to realistically exercise high-end mission sets. Likewise, AFSOC's conducted 78 joint exercises and training events with partner nations in 2017, including our capstone exercise, the recently concluded Emerald Warrior. These events focus on providing complex integration and realistic operational problem sets.

AFSOC remains postured to deter, compete, and win against strategic competitors via our second priority: relevance. To meet the challenges enumerated in the National Defense Strategy, AFSOC must cultivate a balanced force for high-end and low-end conflict by investing in new capabilities while leveraging current capabilities in innovative ways. This strategy aims to balance and expand AFSOC relevance across the spectrum of conflict to deter and, if necessary, defeat America's adversaries. AFSOC embraces the process of innovation from within our formation, striving towards a balance of incremental and transformational efforts that are cost-effective and that extend strategic purpose.

Finally, our third priority is resiliency. What defines AFSOC is not technology or platforms. Rather, we are defined by our people—Active Duty, Guard, Reserve, and civilians, alike—and the relentless application of our ethos and strategic values. Tomorrow's fight is unknowable, but one thing is for certain: It must be an integrated joint venture, where our creative concepts will win out. AFSOC fervently believes a diverse formation lends itself to this

end, and we develop all Air Commandos accordingly. The readiness and relevance of our force is for naught if we neglect our physical, mental, spiritual, and social fitness. Using SOCOM's Preservation of the Force and Family and the Air Force's Comprehensive Airman Fitness Program—Programs, we ensure that our Air Commando community, including our brave Gold Star families, have access to every possible tool to achieve sustained resiliency, and we exploit every opportunity to encourage our airmen to use these tools.

Chairwoman Ernst, Ranking Member Heinrich, members of the committee, AFSOC represents our Nation's finest assets and our enduring strategic advantage. On behalf of all Commandos—Air Commandos, I thank you for the opportunity to address you today, and I look forward to your questions.

[The prepared statement of Lieutenant General Webb follows:]

PREPARED STATEMENT BY LIEUTENANT GENERAL MARSHALL B. WEBB

Chairwoman Ernst, Ranking Member Heinrich and distinguished members of the Committee, I am honored to appear before you as the Commander of Air Force Special Operations Command (AFSOC) on behalf of your superb Air Commandos. Today, I will share with you how AFSOC is ready to win tomorrow's fight for our Nation if called upon, regardless of the adversary.

As United States Special Operations Command's (USSOCOM) air component, we continuously strive to hone capability and evolve our force to remain Ready, Relevant, and Resilient—our three AFSOC priorities. I want to express my gratitude for the resources projected in Presidential Budget (PB) 2019, as these fully fund our requirements and will help us turn a strategic corner as we engage in the Great Powers competition.

In line with the National Defense Strategy (NDS), AFSOC has the duty and opportunity to shape specialized airpower to accentuate both the far low-end and high-end of the conflict spectrum. As General Thomas testified before your committee 2 months ago, Special Operations' unique capabilities are in high demand across the globe. For 17 years, AFSOC has been focused on Counter-Violent Extremist Organizations (CVEO) operations. This has accelerated the AFSOC operations tempo and has drawn our efforts towards the low-end of the conflict spectrum. We realize these efforts are predominately long-term engagements in which cumulative tactical effects lead to long-term strategic impact. To make such engagements successful, AFSOC must lower the resource and opportunity costs of conducting persistent CVEO operations. We must drive down the cost of conducting Intelligence, Surveillance and Reconnaissance (ISR), Processing, Exploitation and Dissemination (PED), and Strike—especially in permissive environments. Conversely, AFSOC operations on the high-end are predominately those that deliver strategic impact in a short amount of time. AFSOC must be capable and flexible in order to confront competitors across a range of potential conflict scenarios. We must develop a force that is more lethal and resilient in contested environments. We must be able to gain and maintain advantage in the information domain. Harmonizing our systems wherever possible will achieve efficiencies of scale and interoperability savings along these lines of effort.

This analysis brings me to AFSOC's first priority: READINESS. For nearly three decades, AFSOC has effectively and decisively delivered specialized airpower around the globe, often at a moment's notice. Our battlefield performance remains unmatched. However, the character of war continually evolves. AFSOC must remain agile and ready to prepare for the unpredictable. AFSOC must build full-spectrum readiness while ensuring that we are postured to "fight tonight". We are invested in virtual, adaptive, and realistic training to build readiness beyond traditional means. Using virtual reality to integrate live training environments with simulators reduces training costs, lowers personnel tempo, and enables us to realistically exercise highend mission sets.

Another way to maximize readiness is by strengthening our network of allies and attracting new partners. AFSOC stands with our Indo-Pacific, Middle Eastern, African, European, and hemispheric allies and partners, providing assurance and enhanced aviation capabilities against a subversive Russia and an increasingly expansionist China. Ensuring readiness both home and abroad, AFSOC conducted 78 ex-

ercises and training events with partner nations in 2017, including state-side capstone exercises like our recently concluded EMERALD WARRIOR. Overseas-based exercises, led by our OCONUS units and occasionally augmented with CONUS forces, play a critical role enabling Theater Special Operations Command (TSOC) and Global Combatant Command (GCC) regional campaign plans. Conducting bilateral and multilateral events with the Republic of Korea, Japan, the Republic of India, the Republic of Estonia, the United Kingdom, France, and others, our Air Commandos bolster the capabilities of partner nations, create pockets of containment, and ensure interoperability between American, allied, and partner forces. We welcome hosting members of this committee at any future exercises to see firsthand the value our Air Commandos deliver to allies, partners, and the Nation.

Our Combat Aviation Advisors (CAA) are the vanguard of AFSOC's Irregular Warfare force. Specializing in Aviation Foreign Internal Defense (AvFID) operations, CAAs recently enhanced indigenous aviation operations in the Kingdom of Thailand, the Hashemite Kingdom of Jordan, and the Republic of Poland. PB-19 dramatically improves our AvFID capability by doubling our CAA capacity with 152 additional advisors, and by adding five AvFID Armed ISR aircraft. CAA force growth ensures engagement with Combatant Commanders' highest priority countries. As we work to build out the full CAA capability portfolio and bring more partner nations on board to share the security, we enthusiastically support the Air Force's Light Attack Aircraft initiative. Using an economically feasible Light Attack platform would allow us to scale aviation training for our allies, expand procurement and maintenance efficiencies, and maximize opportunities to build partner capacity.

Should a bolstered allied network fail to deter aggression, AFSOC remains postured to deter, compete, and win against strategic competitors via our second priority: RELEVANCE. To meet the challenges enumerated in the NDS, AFSOC must cultivate a balanced force for high- and low-end conflict by investing in new capabilities while leveraging current capabilities in new, innovative ways. This strategy aims to balance and expand AFSOC relevance across the spectrum of conflict to deter, and if necessary defeat, adversaries in a dynamic and everchanging security environment. AFSOC embraces the process of innovation from within our formation, striving towards a balance of incremental and transformational efforts that are cost-effective and that extend strategic purpose.

AFSOC assiduously investigates new and unique ways to organize, train, and equip against strategic competitors. We promote General Goldfein's "current technology used in new ways" approach to rapid, cost-effective, and impactful innovation. AFSOC finds the way against America's toughest enemies, dating back to daring infiltration missions against Nazi Germany's Fortress Europe and the front lines of Imperial Japan. This ethos endured through the decades, and is still alive and well in your Air Commandos of today. Regardless of threats, AFSOC finds quick and lethal solutions, understanding the shifting geopolitical landscape and constantly adjusting our force presentation to maximize lethality and applicability for tomorrow's fight.

Maintaining a relevant force and fleet demands that we continually refine and modernize the force through programming priorities. By accelerating programs essential to retiring legacy aircraft, AFSOC can reinvest cost savings into future capabilities. For example, the MC-130J Talon III program provides adverse weather terrain following/terrain avoidance, radar threat avoidance/protection, and communication networking capabilities significantly more advanced than our current MC-130H Talon II fleet built in the 1980s. New Radar Frequency Countermeasures technologies bring expanded capabilities, allowing digital upgrades that protect against emerging enemy threats without replacing complete systems. Airborne Mission Networking provides a suite of integrated situational awareness and communication tools providing the crew with a correlated common operating picture of the air and ground battlespace that does not currently exist in SOF mobility aircraft. PB-19 funding is critical to synchronize the Talon III design and testing, thus enabling a timely recapitalization of the Talon II fleet. Fielding of Talon III capabilities is critical to maintaining the relevance of our SOF C-130 specialized mobility fleet across all spectrums.

Knowing we must innovate at the speed of relevancy, we are currently fielding our newest gunship using "plug and play" technology already evaluated in other AFSOC platforms. This allows for an expedited fielding timeline, and more rapidly delivers the best lethality to our warfighters. Additionally, AFSOC is adjusting tactics, techniques, and procedures, and adding low-cost modifications to current assets. These new combinations aim to produce cascading problems for America's adversaries, creating strategic dilemmas and buying time for the Joint Force to act and react accordingly. The faster we can go from concept to the battlefield, the better.

Other key emergent technologies at AFSOC include the gunship High Energy Laser, a non-kinetic weapon system employed to achieve high precision lethal effects on targets with little to no acoustic signature and very low collateral damage. High Energy Lasers are a truly remarkable and innovative technology, one that is capable of dramatically shaping the battlefield to our advantage. Additional gunship advancements include the use of Adverse Weather Engagement Systems and Tactical Off-Board Sensing technologies. These systems enable our AC-130 gunship fleet to target, sense, and engage despite adverse weather conditions.

Looking beyond the next ridgeline, we are interested in developments relating to Next Generation Vertical Take Off and Landing capabilities. We see this presenting a revolutionary leap in vertical lift range and speed using advanced turbofan technology. Additionally, our Next Generation Manned ISR platform is going through requirement validation. We know this capability must be operable in a more contested threat environment than we've become accustomed to, and thus we're looking for increases in endurance, range, speed, capacity, payload, and advanced defensive systems. Staying relevant requires persistence.

AFSOC is working with USSOCOM and Air Force Space Command to increase interoperability. As the Department of Defense's lead component for the space warfighting domain, the Air Force aims to advance space-based technology to maintain superiority in the ultimate high ground. The Joint Force's reliance on these space effects, such as GPS, ISR, and communications capabilities will grow exponentially, despite increased threats in the domain. We have adopted a resilient space enhancement strategy to ensure these capabilities are available for AFSOC missions throughout the conflict spectrum. Future employment opportunities include Alternative Beyond-Line-of-Sight options during operations and resilient positioning, navigation, and timing (PNT) systems in denied environments.

AFSOC heavily leverages both Air Force and USSOCOM research and development investments, but also tracks key Air Force Research Laboratory (AFRL), Defense Advanced Research Projects Agency (DARPA), Office of the Secretary of Defense Strategic Capabilities Office (SCO), and industry projects that align with our innovation focus. For example, we are partners with USSOCOM, AFRL, and industry for Project MAVEN. This Under Secretary of Defense for Intelligence initiative leverages machine learning and artificial intelligence capabilities to free precious human capital from labor-intensive ISR categorization work. AFSOC leverages USSOCOM's SOFWERX network to reach largely untapped non-traditional sources of innovation in the commercial markets. SOFWERX recently facilitated assessments for AFSOC of new systems and technologies, like reducing the size, weight and power of the equipment carried by our Special Tactics operators. AFWERX is a similarly-scoped Air Force program that is relatively new, and is beginning to work other issues related to Special Tactics.

Finally, our third priority is Resiliency. What defines AFSOC is not technology or platforms. Rather, we are defined by our people—Active Duty, Guard, Reserve, and civilians alike—and their relentless application of our ethos and strategic values balanced across the spectrum of conflict. Tomorrow's fight is unknowable but one thing is certain: it must be an integrated joint venture where our creative concepts will win out. AFSOC fervently believes a diverse formation lends itself to this end and we develop all Air Commandos accordingly. In fact, AFSOC employs the skills of female aviators in combat operations, and has done so since 1994. The Air Force proudly promoted our first female Air Commando to the rank of Brigadier General this year, and over 13 percent of our senior enlisted formation is female, a ratio that compares favorably to the rest of the Air Force. We have benefited from the expertise of female leadership at the squadron, group, and wing level for years, and will continue to do so into the future.

Humans, not hardware, allow us to accomplish our mission. Our Air Commandos, families, and relationships are our most valuable assets; but they are also our most vulnerable. Our Nation calls upon us to provide specialized airpower, oftentimes at a moment's notice. We proudly stand ready to answer our Nation's call. We understand the impact of this demanding and perilous mission. Therefore, the immediate and enduring resiliency of our force, family, and relationships, is the critical foundation for everything we do. We consider this an essential task to maintain readiness of the AFSOC force.

The readiness and relevance of our force is for naught if we neglect our physical, mental, spiritual, and social fitness. Utilizing USSOCOM's Preservation of the Force and Family (POTFF) and the Air Force's Comprehensive Airman Fitness programs, we ensure that our Air Commandos, including our brave gold star families, have access to every possible tool to achieve resiliency every day and we exploit every opportunity to encourage our Airmen to use these tools.

POTFF enables us to deliver Human Performance Programs designed to meet the unique needs of our warfighters. It delivers Psychological Performance Programs to improve our cognitive and behavioral performance. It integrates family resilience initiatives into Social Performance Programs, enhancing service-provided programs. POTFF allows us to deliver Spiritual Performance Programs to enhance core beliefs, values, awareness, relationships and experiences. Our team is grateful for your resolute support of AFSOC, as the continued funding of USSOCOM's POTFF program is vital to the long-term psychological, spiritual, social, and physical resiliency of the Nation's bravest warriors. After all, the invisible wounds of war can be just as debilitating as physical injuries.

AFSOC is on a glide path to meet the Secretary of Defense's goal of 1:2 deployment-to-dwell for the active force and 1:5 for reserve forces. Currently, 17 percent of deployed AFSOC personnel have a deployment-to-dwell of less than 1:2 and there are no individuals deployed below 1:1. To balance the insatiable global demand for specialized airpower, we are consistently working towards a maintainable deployment tempo for the long-term health of our force, while enhancing focus on recruiting, retention, and preservation of the force initiatives.

Chairwoman Ernst, Ranking Member Heinrich, and Members of the Committee, AFSOC represents our Nation's finest assets and our enduring strategic advantage. On behalf of all Air Commandos thank you for the opportunity to address you today. I look forward to answering any questions you might have.

Senator ERNST. Thank you, General Webb.  
General Tovo.

**STATEMENT OF LIEUTENANT GENERAL KENNETH E. TOVO,  
USA, COMMANDING GENERAL, U.S. ARMY SPECIAL OPERATIONS  
COMMAND**

Lieutenant General TOVO. Madam Chairwoman Ernst, Ranking Member Heinrich, distinguished Senators of the committee, thank you for the opportunity to highlight the phenomenal men and women of the Army Special Operations community and the great work they do on behalf of the Nation every day around the world.

USASOC [United States Army Special Operations Command] provides more than 51 percent of the Nation's SOF and consistently fills over 60 percent of SOF deployments worldwide. The command consists of Special Forces, also known as the Green Berets, our premier practitioners of irregular warfare; psychological operations, who use the power of influence to shape operational environments; civil affairs, who conduct civil reconnaissance, mapping of human terrain in governance and counter-governance activities; Rangers, who specialize in direct-action raids and joint forcible entry; and Army Special Operations aviators, who provide a unique rotary wing and ISR [Intelligence, Surveillance, Reconnaissance] capability.

ARSOF soldiers are deployed in more than 70 countries on any given day of the year, delivering strategic value to the Nation through four complementary capabilities: an indigenous approach, precision targeting operations, developing understanding and wielding influence, and, lastly, crisis response.

You have asked me to discuss what USASOC is doing to prepare ARSOF for both the current and emergent range of threats our Nation faces. At the macro level, our Nation's threats can be binned in two categories: first, violent extremist organizations that threaten the homeland and other strategic interests; and, second, those peer and near-peer adversaries who seek to undermine our global influence and overturn the current international order that preserves our prosperity.

The counter-VEO [violent extremist organizations] fight has monopolized our global efforts for over 16 years. However, it is clear that competing nations, such as Russia, China, North Korea, and Iran, will continue to challenge the current international security order to seek greater regional and, in some cases, global influence.

USASOC is sustaining the counter-VEO fight while building readiness for peer and near-peer threats by investing in three major efforts. First, we are in the midst of a multiyear effort to restore balance to the force, with the aim of improving the health of the force and providing additional time to train against the broader set of tasks that must be mastered to address peer adversaries. Second, we have made significant investments in the intellectual space to ensure that we understand the implications of changes in the security environment and that we find ways to maintain an enduring competitive advantage over our Nation's adversaries. Third, the command published strategic guidance, USASOC Strategy 2035, to establish the objectives and framework for developing the capabilities required to move ARSOF from the force of today to the force that the Nation will need in the future.

Competing successfully against our adversaries is demanding. It requires persistent engagement at points of vulnerability around the world. It requires soldiers who understand the political, cultural, and geographic complexities of austere operating environments and the unique challenges faced by our allies and our partners. It also requires an advanced understanding of our adversaries and how they are evolving in an effort to shift the competitive space to their advantage. To meet these requirements and to counter hybrid threats of the future, USASOC will continue to provide the Nation with a balanced portfolio of complementary capabilities.

Before I conclude, I'd like to thank this Congress for its continued support of SOF, the Army, and DOD. Your efforts to provide budgetary relief are greatly appreciated. Your continued endorsement of critical SOCOM programs, such as Preservation of the Force and Family, are essential to the resilience and readiness of ARSOF. I'd like to specifically thank the Senate Armed Services Committee for its advocacy for SOF in the 2018 NDAA [National Defense Authorization Act]. The authorities provided under Section 1202 gives SOF the tools required to impede the progress of adversary advances in the competitive space, short of war.

Thank you for this opportunity to appear before you today, and I look forward to your questions.

[The prepared statement of General Tovo follows:]

PREPARED STATEMENT BY LIEUTENANT GENERAL KENNETH TOVO

OPENING REMARKS

Madam Chairwoman Ernst and distinguished members of the Committee, thank you for the opportunity to highlight the phenomenal men and women of the Army Special Operations community and the great work they do on behalf of the Nation, every day, around the world. USASOC provides more than 51 percent of the Nation's Special Operations Forces and consistently fills over 60 percent of all U.S. SOF deployments worldwide. USASOC is made up of Special Forces, also known as Green Berets, who are our premier practitioners of irregular warfare; Psychological Operations, who use the power of influence to shape operational environments; Civil Affairs, who conduct civil reconnaissance, mapping of human terrain, and conduct

governance and counter governance activities; Rangers, who specialize in direct action raids and joint forcible entry; and Army Special Operations Forces (ARSOF) Aviators, who provide a SOF unique rotary wing and ISR capability. USASOC has the mission to man, train, equip, educate, organize, sustain, and support all ARSOF.

I would also like to thank this Congress for its continued support of Special Operations Forces, the Army, and DOD as a whole. Congress's efforts to provide budgetary relief to DOD is greatly appreciated down to the individual soldier level. Your continued endorsement of critical USSOCOM programs such as the *Preservation of the Force and Family* (POTFF) are essential to the resilience and readiness of ARSOF. Additionally, I would like to specifically thank the Senate Armed Services Committee for its advocacy for SOF in the 2018 NDAA. The new authorities provided under Section 1202 of the 2018 NDAA gives SOF the irregular warfare tools and resources required to impede the progress of near peer advances in the competitive space short of war.

You have asked me today to discuss what USASOC is doing to prepare ARSOF for both the current and the emergent range of threats that our Nation faces. At a macro level, our Nation's threats can be categorized as countering violent extremist organizations (counter-VEO) and building readiness for near peer adversaries. The counter-VEO fight has monopolized our global efforts for 16 plus years; however, it is clear that competing nations such as Iran, Russia, China, and North Korea will continue to challenge the current international security dynamic to seek greater regional influence.

Although the possibility of a near peer or peer conflict remains a persistent aspect of the future environment, competing nations are challenging the stability of regions and U.S. interests through indirect means in the competitive space between peace and conflict. Adversarial actions in the competitive space will seek to achieve irreversible gains at the expense of U.S. interests, as competing nations leverage asymmetric technologies, disenfranchised minority elements of populations, and exploit weak governance. This changing character of war is being enabled by the hyper-connected nature of the global environment, allowing hostile entities to influence vulnerable populations and hijack local grievances in ways that threaten regional security. Threats to stability in the competitive spaces will likely emerge more rapidly, requiring the U.S. to have immediately employable options to counter the actions of competing nations. Ultimately, these challenges have driven, and will continue to drive, the need for ARSOF's unique capabilities and skills. USASOC is sustaining the current counter-VEO fight, while building readiness for peer and near peer threats, by investing in three major efforts: restoring balance to the force, investment in the intellectual space, and publishing strategic guidance (USASOC 2035).

#### *Effort I: Restoring Balance to the Force*

Since 2015, USASOC has been on a path to reestablish a balance between time on deployment with time at home station for our soldiers. There were two purposes of restoring balance to the force. The first purpose was improving the overall health of the force and the second was to provide additional time for units to train on a broader range capabilities, to address the peer and near peer threats that our Nation faces. On a daily basis ARSOF are operating in over 70 countries around the world, executing missions in support of Geographic Combatant Commanders or other elements of the U.S. Government. USASOC forces have always been in high demand; however, during the last 16 plus years of combat, meeting operational requirements surpassed our ability to maintain a sustainable resource model. USASOC's crucial weapon system is the specially selected and uniquely trained ARSOF soldier. We must carefully balance the demand for ARSOF to meet today's requirements with the necessity to preserve the health and welfare of our soldiers, and by extension, their families. With USSOCOM's assistance, USASOC has implemented a sustainable resource model. USASOC is on glide path to achieve the SECDEF's directed 1:2 deployment to dwell ratio by the end of 2018. Additionally, we are using tools such as Defense Ready to accurately track and manage the personnel tempo of our individual soldiers, which gives us a more accurate assessment of the demand that we have placed on our soldiers and their families.

Since implementing our efforts to restore balance to the force, we have seen positive returns on investment in the health of the force. Although there has been recent scrutiny regarding the health of ARSOF, in my view our force is healthy and getting healthier every day. Two positive trends that USASOC has observed are a decrease in suicide rates and sexual assaults.

USASOC has observed a decrease in the number of suicides each year for the last 3 years, with a total of 5 in 2017. Although one suicide is too many, this is an improvement compared to 16 in 2013. I accredit this decrease in suicide to the benefits of the POTFF Program and a cultural change within our units encouraging our sol-

diers to seek help when they, or their families, are having emotional issues, and emphasizing the duty for teammates to act on if they suspect issues. Additionally, USASOC's sexual assault incident rate across ARSOF formations (recent assaults) is declining, while latent reporting has increased. The increase in latent reporting reflects an increased trust in the Command and the Army's Sexual Harassment/Assault Response and Prevention (SHARP) program and a reduced perception of a negative stigma associated with reporting sexual assaults.

A significant challenge to rebalancing the force is USASOC's identified manning deficits. However, in accordance with the POM 19-23 Program Decision Memorandum, USASOC will gain an additional 1,585 manpower positions that will begin to address those manning deficits. In the 19-23 POM USASOC will gain manpower positions for expanded functions in expeditionary Command and Control, military intelligence, cyber, institutional training, and aviation. A primary example of the importance of this growth will be realized within our 1st Special Forces Command (1st SFC). First SFC was reorganized as a deployable division level headquarters capable of providing mission command to a Joint Special Operations Task Force for contingency operations. First SFC executed their design purpose by deploying to provide SOF mission command in Iraq and Syria 2016-2017. However, 1st SFC's identified manning shortages created significant strain on the command. First SFC's programmed growth in the POM 19-23 Program Decision Memorandum will provide an additional 272 (222 Military/ 50 Civilians).

A second example of the positive impact of USASOC's approved growth is in our Military Intelligence Soldiers. The programmed growth in military intelligence will expand USASOC's organic processing, exploitation, and dissemination (PED) capability (+396: 250 Military/146 Contractors), which has been an enduring challenge for our formations. Our ability to internally conduct PED will provide a more capable and efficient force to Combatant Commanders and increases our readiness for peer and near peer threats in both armed conflict and the competitive space short of war.

The second purpose of restoring balance to the force was to allow units time to train on a broadened range of capabilities to address the peer and near peer threats that our Nation faces. USASOC has been able to refocus its training readiness efforts by reviewing and updating Mission Essential Task Lists (METL) across ARSOF, and training those updated METLs during unit level training events, at multiple exercises, and at the Army's Combat Training Centers (CTC). USASOC's review of its operational and tactical METL has ensured that ARSOF soldiers remain ready for counter-VEO missions globally and also sustain readiness for peer and near peer threats in competition and conflict.

ARSOF is now a consistent participant in CTC rotations with conventional forces. CTC scenarios challenge ARSOF and conventional forces to work together in complex threat environments that include degraded communications, weapons of mass destruction threats, subterranean complexes, cyber threats, and electronic warfare (EW) challenges that we would expect in a peer or near peer conflict. In the past year, 1st Special Forces Command has executed 11 CTC rotations, USASOC's multi-state irregular warfare exercise Jade Helm 2017, and will execute their first, ARSOF 2-star Division-level Army War-fighting Exercise 18-04 in this month; the 75th Ranger Regiment executed four CTC rotations, five battalion level mission readiness exercises, and 14 realistic military training (RMT) exercises; and the United States Army Special Operations Aviation Command's 160th Special Operations Aviation Regiment executed five CTC rotations and seven RMTs.

ARSOF aviators are now conducting annual training in anti-access/area denial (A2AD) environments where adversaries possess robust EW capabilities that can identify and target our aircraft. New tactics, techniques, and procedures for operating in an A2AD environment are being developed and proliferated across the Department of Defense (DOD) by ARSOF Aviators in preparation for the challenges of this threat environment. ARSOF Aviators are also completely nested with the Army's Future Vertical Lift initiatives to develop the next generation of helicopters and are incorporating the lessons learned training in an A2AD environment to inform that process.

Our potential adversaries are well aware of the power of our ability to exercise mission command through robust satellite communications; and consequently will seek to deny or disrupt this network. USASOC Units are exercising lessons learned from our virtual wargaming and are training in communications denied environments, preparing for the anticipated mission command challenges of this environment. Additionally, we are re-investing in clandestine communications platforms to decrease our digital footprint.

The proliferation of chemical, biological, radiological, nuclear, high-yield explosive weapons, and the means by which they are delivered will pose an increased threat

to U.S. interests and international security in the future. The decreasing costs associated with WMD technology make these weapons a lucrative option for both VEOs and peer/near peer adversaries. USASOC is investing heavily in our chemical, biological, radiological, nuclear, and enhanced conventional weapons (CBRNE) counter measures, ranging from soldier protection systems to aircraft decontamination systems and training.

USASOC is also addressing the cyber threats that are now present on today's multi-domain battlefield, by establishing a tactical cyber course in 2017. The Special Operations Center of Excellence (SOCoE) now provides tactical cyber training to both ARSOF and conventional forces (CF), with the ability to train 600 personnel per year. ARSOF and CF soldiers are training together and procuring the requisite skills to monitor, in a non-attributional manner, their tactical level environment and decrease their cyber footprint, enabling increased force protection and situational awareness when deployed.

*Effort II: Investment in the Intellectual Space*

Four years ago USASOC identified the need to address gaps in the development of new concepts and capabilities in order to maintain a competitive edge over our Nation's adversaries. In 2014, USASOC created the G9 "Futures" Directorate through an internal reorganization to fill this void in the intellectual space. USASOC's human capital investment in the G9 was an acknowledgement of the criticality of understanding what the implications are of the current and future operating environment, and what would be an appropriate ARSOF solution, particularly against peer and near peer competitors.

Silent Quest (SQ) is USASOC's virtual wargame experiment led by the USASOC G9. SQ assesses the concepts, capabilities, and capacities required to meet strategic and operational challenges ARSOF can expect to encounter in the current and future operational environment. SQ identifies existing ARSOF doctrine and capabilities that require updating through USASOC's Strategic Planning Process. The SQ wargame scenario utilizes a Special Operations-Centric Campaign supporting a Theater Special Operations Command, characterized by its multi-year, small-footprint, scalable design, nesting ARSOF operations with Conventional Force, Joint, Multi-national, and Interagency unified actions set against peer and near peer competitors.

The G9 also leads USASOC's efforts in Army and Joint senior leader forums. Beginning with the Modern Russian Unconventional Warfare forum in March of 2015, these USASOC sponsored forums have explored ARSOF's response to the changing character of warfare and are designed to broaden strategic options for our National leaders. Our most recent Senior Leader Forum addressed Multi-Domain Maneuver. Multi-Domain Maneuver is the Army's concept of Joint Force employment of the physical, cognitive, and virtual aspects of maneuver at all levels, in and through all domains, across the operational framework, through time, and across the range of modern warfare challenges to maintain a competitive edge over our Nation's adversaries. The forum set conditions for further institutional exploration of Operational / Strategic maneuver and campaigns to prevent, deter, and / or defeat adversary strategies below the level of armed conflict.

The USASOC G9 is currently developing the ARSOF Operating Concept for 2035 and Beyond. The ARSOF OC addresses the challenge:

*In a constrained future environment of peer, near-peer, and non-state competitors, with technologically advanced threats, ubiquitous surveillance, AI-enabled battle networks, an accelerating pace of change, globally scaled and interconnected information, and the increasing relevance of people and populations in competition and conflict, how does ARSOF gain and maintain an enduring competitive advantage over our Nation's adversaries?*

It is our goal, through our investment in the intellectual space, for ARSOF to employ empowered soldiers and integrated units capable of delivering ARSOF Combined Arms across the range of modern warfare challenges, as it leverages adaptive and innovative institutional capabilities to provide the joint force an enduring competitive edge over our Nation's adversaries. That edge comes from a synergy arising from campaigns and operations that combine the abilities of conventional forces and special operations forces to maneuver against our Nation's challengers.

*Effort III: Publishing Strategic Guidance (USASOC 2035)*

In 2017 USASOC published its strategic guidance to ARSOF, *USASOC 2035*. *USASOC 2035* provides guidance for the further development of ARSOF institutional and operational capabilities needed to counter threats across the spectrum of conflict, especially in the competitive spaces between peace and overt war. *USASOC 2035* incorporates the previous USASOC Commander's initiatives that are still in

progress and builds upon those capabilities already established. USASOC 2035 presents objectives for developing future capabilities that will move ARSOF from the force of today to the force of tomorrow.

In *USASOC 2035* we define ARSOF's strategic value to the Nation through four complementary capabilities—the *Pillars of ARSOF Capability*: an Indigenous Approach, Precision Targeting Operations, Developing Understanding and Wielding Influence, and Crisis Response. ARSOF are employed throughout the operational spectrum and across all campaign phases, including interagency- or Coalition led campaigns and operations. Together, the Pillars of ARSOF Capability provide options to shape or prevent outcomes in support of our national interests. These capabilities, coupled with tailorable mission command nodes and scalable force packages that are low-signature and employ a small footprint, are particularly suited for employment in politically sensitive and irregular warfare environments.

The *indigenous approach* is a means to address challenges to regional stability with and through populations and partner forces empowered by persistent ARSOF engagement. Through this approach, ARSOF leverage nascent capability within populations, *transforming indigenous mass into combat power*. Since World War II, ARSOF elements have amassed unique institutional and operational expertise in living among, training, advising, and fighting alongside people of foreign cultures, achieving effects with and through partner forces. Today, ARSOF training pipelines produce regionally oriented, culturally astute, and language-capable personnel who can apply an indigenous approach across the spectrum of conflict in permissive, uncertain, and hostile environments. The indigenous approach provides low-cost, high-impact options to address state and non-state threats, set conditions for conventional force success, and execute sensitive activities through minimal force commitment.

*Precision targeting operations* involve both kinetic and non-kinetic direct action and counter-network activities enabled by SOF unique intelligence, targeting processes, and technology, to include ARSOF rotary wing capabilities, armed unmanned aerial systems, and psychological operations. Precision targeting operations create *precise physical and psychological effects and can be used to collapse human or physical networks through deliberate targeting of critical nodes*. Precision targeting operations are employed against uniquely difficult target sets that may require operating in uncertain or hostile environments, careful and focused application of force, and significant intelligence and operational preparation. These operations are executed by highly trained, rapidly deployable, and scalable ARSOF personnel and formations that are employed to buy time and space for other operations to gain traction, such as transforming indigenous mass into combat power.

*Developing understanding and wielding influence* are essential aspects of the value ARSOF capabilities provide joint force commanders and the Nation. The SOF network of personnel, assets, and international partnerships represents the means to *obtain early understanding of emerging local, regional, transregional threats, and/or where opportunities exist for advancing U.S. objectives*. The SOF network provides capabilities needed to influence outcomes in all campaign phases and especially in conflict short of overt war. Engagement worldwide allows ARSOF to develop long-term partner nation relationships, and an advanced understanding of complex environments. Operating in culturally and politically complex environments requires ARSOF personnel to be adept at interacting and coordinating with multiple agencies and partners. Institutional training and education programs unique to ARSOF, along with long-term regionally aligned employment, provide the expertise necessary to *understand complex environments and the ability to influence people and circumstances*.

*Crisis response*, provided through CONUS and OCONUS stationed alert forces and persistently deployed and dispersed units, provides national decision makers with *agile, tailorable, and rapidly employable ARSOF formations necessary to respond to emergencies*. These forces provide options to rescue people under threat, to recover sensitive materials, to provide humanitarian relief, or to address other short notice contingencies. ARSOF crisis response capabilities leverage the SOF network and partner-nation relationships established before crisis occurs. Persistent engagement develops relationships and the advanced understanding needed in times of crisis for ARSOF to effectively employ unilateral capabilities and those created during partner-force development. Through ARSOF crisis response, a small number of operators can rapidly address emergencies in an effort to enable host nation solutions to local or regional security challenges.

## CONCLUSION

In summary, after more than 16 years of war, the operational effectiveness of ARSOF remains high. We have acknowledged that the future operating environment will continue to evolve with highly adaptive state and non-state adversaries seeking to challenge the status quo and our National interests. USASOC has refocused our training priorities to remain ready for the global counter-VEO mission, while also building and sustaining readiness for peer and near peer threats, in both armed conflict and the competitive space short of war. Preventing or deterring hybrid conflict short of all-out war is demanding. It requires persistent forward engagement at points of vulnerability around the world. It requires soldiers to understand the political, cultural, and geographic complexities of austere operating environments and the unique challenges faced by our allies and partners. It also requires an advanced understanding of adversaries and how they are evolving in an effort to shift the competitive space to their advantage. In order to meet these requirements and to counter irregular and conventional warfare threats of the future, USASOC will continue to provide the Nation with a portfolio of complementary capabilities enabled by institutional and operational agility. We remain committed to embodying the USASOC motto: "*Sine Pari*"—Without Equal.

Senator ERNST. Thank you, General.  
Admiral Szymanski.

**STATEMENT OF REAR ADMIRAL TIMOTHY G. SZYMANSKI, USN,  
COMMANDER, NAVAL SPECIAL WARFARE COMMAND**

Rear Admiral SZYMANSKI. Chairwoman Ernst, Ranking Member Heinrich, and distinguished members of the committee, I'm honored to be here today with my Special Operations counterparts to provide an update on your naval Special Operations Force and the maritime component of U.S. Special Operations Command.

I have with me today my force master chief, Special Warfare Operator Derrick Walters. We are proud to represent the men and women of Naval Special Warfare, who are fulfilling the missions our Nation's ask of them with courage, diligence, and professionalism.

Naval Special Warfare is made up of sea, air, land operators, our SEALs [Sea, Air, and Land Teams], our special boat operators, commonly referred to as SWCC, or Special Warfare Combatant Craft Crewman, our combat support and combat service support personnel, such as intelligence analysts, cryptologists, communications specialists, chaplain corps and medical support, amongst others. We are a mix of Active Duty, Reserve, and civilians. Our nearly 10,000 personnel account for 2.4 percent of the Navy's overall personnel numbers and 14 percent of the U.S. Special Operations personnel numbers. Our budget accounts for less than 1 percent of the Department of the Navy's budget and approximately 12 percent of the U.S. Special Operations Command budget.

As you are aware, and as the National Defense Strategy describes, and as my colleagues have highlighted, security challenges facing the Nation today are numerous, and the changing nature of war requires that we change with it. Today, we have more than 1,000 special operators and support personnel deployed to more than 35 countries, facing those challenges, assuring partners, and strengthening alliances. I would like to thank this committee for your support to Special Operations.

As we continue in the longest stretch of armed conflict in our Nation's history, congressional support is paramount as we work to maintain advantage over our enemies, protect the Nation, and care for the health and well-being of our operators and their families.

The first SOF truth, that humans are more important than hardware, remains our guiding principle. We have the best weapons and technology, but our primary weapon systems are now, and always have been, our operators. We select, train, and sustain men and women of character, who are mature, highly skilled, culturally attuned, and trusted to execute our Nation's most sensitive missions. It's precisely because of what we ask our people to do, operation after operation, that we never lose focus on their long-term health. Preservation of the Force and Families, our Human Performance Program, and our latest Cognitive Health Initiatives are about operational readiness, battlefield performance, and the well-being of our force and families.

After nearly 17 years of operations in Iraq and Afghanistan, we are focused on strengthening our capabilities as the maritime component to Special Operations. We are making progress modernizing our maritime mobility platforms that can operate effectively in contested environments. I sincerely appreciate the support from the Chief of Naval Operations, Admiral Richardson, and his leaders on the Navy staff, towards these priorities.

In today's world, adversaries are pursuing rapidly advancing technologies in an effort to surpass those of the United States. We, in turn, are relentlessly pursuing innovative solutions to generate effective and lethal capabilities to outpace our adversaries.

With our component partners and throughout Special Operations Command, innovation is embedded in every level of our force. Impressively, our most junior operators routinely demonstrate the talent, creativity, and battlefield know-how to move ideas to action. Our force on—our focus on innovation is driven by our people, buying down risk to our force while increasing our speed, accuracy, and lethality. But, innovation is not just about bringing technology to bear. The National Defense Strategy demands that we think differently, adapt to the changing environment, look for efficiencies and ways to increase our lethality. Optimizing our force is vital to meeting our current operational requirements and providing greater agility and lethality to meet future obligations.

Naval Special Warfare places priority on strengthening, equipping, and protecting our people, outpacing our enemies in the employment of new technologies in accelerating trends, and adapting our force to remain agile, accurate, and lethal for many years to come. As a command, we remain vigilant to the resiliency of our operators, support personnel, and their families, and remain committed to our Gold Star families, whose sacrifice we can never repay and whose memory continues to be a source of strength for us.

Thank you for your time, your care for all our sailors and our Naval Special Warfare community. I look forward to your questions.

[The prepared statement of Admiral Szymanski follows:]

PREPARED STATEMENT BY REAR ADMIRAL TIM SZYMANSKI, U.S. NAVY

Chairwoman Ernst, Ranking Member Heinrich and distinguished Members of the Committee, I am honored to appear before you, and proud to provide an update on your Navy's Special Operations Force and the U.S. Special Operations Command's maritime component.

As you are aware, the security challenges facing our nation today are numerous, and are made more difficult by adversaries who are exploiting emerging technologies and gaining ground. We will continue to face Violent Extremist Organizations (VEOs), while the battlefield expands and becomes more complex and chaotic. Today, our most pressing security concerns involve the aggressive, coercive, and disruptive actions of near-peer competitors and rogue regimes. Exerting power by fighting below the level of armed conflict favors these players to the point that they are gaining advantages that threaten our national security. We must continue to be smarter, stronger, quicker, and more lethal than our adversaries, in order to protect our nation in a world that grows more complex every day.

As an enterprise of nearly 10,000 personnel—2,810 SEALs; 780 Special Warfare Combatant-craft Crewmen; 4,100 support personnel; 780 reservists; 1,240 civilians—your Naval Special Warfare (NSW) Command accounts for only 2.4 percent of the Navy's personnel. Our budget accounts for less than one percent of the Department of the Navy's budget, and approximately 12 percent of U.S. Special Operations Command (USSOCOM) budget.

We continue to have a global presence—operating in more than 35 countries on any given day. We are networked with the U.S. Navy and Joint Forces, the inter-agency, and allies and foreign partners, executing missions in support of USSOCOM, the U.S. Navy, geographic Combatant Commanders, and ultimately, national objectives across a full range of political and operational environments.

#### NSW'S ALIGNMENT TO THE NATIONAL DEFENSE STRATEGY

The National Defense Strategy (NDS) published earlier this year charged the Department of Defense (DOD) to be more agile, more lethal, and more innovative in order to maintain our competitive advantage. The Chief of Naval Operations, in turn, laid out the maritime responsibilities articulated in the NDS, focusing on increasing Naval Power through balancing capability and capacity with readiness and sustainment.

As the Commander, my challenge is to man, train, and equip the Force to be better positioned to support the NDS, the National Military Strategy and the Navy's Strategy for Maintaining Maritime Superiority, while supporting the operational requirements of the theater commanders. Furthermore, the long-term sustainment, health, and well-being of our people remains my highest priority.

#### NSW RESOURCING

After nearly 17 years of war in Afghanistan and Iraq, we are focused on reasserting our capabilities as the maritime component to Special Operations, properly postured to meet the threats of the future, enhancing our partnership with the Navy and exploring opportunities for increased integration and interoperability, while building capabilities and capacity with fleet, submarine, aviation and cyber forces.

Acknowledging that manpower requirements have outpaced authorized and actual growth, we have spent the last year taking a hard look at our force structure to determine how we can best use the resources we have to optimize the impacts we are making on the battlefield. We looked at how to eliminate redundancy, redirect resources and merge assets to build depth and agility and how to meet transregional threats and provide increased combat lethality to the Theater Special Operation Commands. Optimizing our Force is paramount to meeting current operational requirements and provide greater agility to meet future requirements.

We recently collaborated with the Naval Post graduate school to conduct a maritime, multi-thread experiment in Southern California. The exercise allowed us to explore a realistic scenario using unmanned systems in a multi-domain (sea, air and land) environment. We learned a lot and advanced the potential use of artificial intelligence and human-machine teaming in current conflicts which will eventually increase our lethality while reducing risk.

We have made necessary investments aimed at increasing our lethality, and refining our capabilities that enable access to contested areas.

We have made significant increases in our unmanned aerial vehicle lethality by adding targeting capabilities, increasing the capabilities of current sensor suites, and using algorithms and artificial intelligence to speed up the targeting cycle.

We have modernized numerous small arms systems, including procuring a purpose built, full-time suppressed, medium range weapons system; a lighter weight medium machine gun that matches and, in some cases, surpasses the effective range of a .50 caliber machine gun; a sniper weapons system with optics and wind sensing technology; and shoulder-launched munitions that allow for very precise engagements through hardened structures.

We have made great strides in modernizing our maritime mobility platforms. In fact, our partnerships with maritime industries has never been stronger.

We have introduced high performance surface combatant craft into our fleet to serve across the spectrum of maritime operations. They include our new Combatant Craft Assault which replaced the NSW 11-meter rigid-hull inflatable boat and our Combatant Craft Medium which replaced the Mark V Special Operations Craft and the introduction of the new Combatant Craft Heavy.

Special Operations Force (SOF) undersea mobility platforms provide uniquely capable, clandestine means to access peer/near-peer locations. To that end, we expect to introduce two new undersea submersibles this year—the Shallow Water Combat Submersible (SWCS), which will replace our legacy SEAL Delivery Vehicle (SDV), and the Dry Combat Submersible (DCS), a new platform to our inventory.

Nearly a year ago, we piloted a deliberate effort to realize the Secretary of Defense's guidance of exploiting Industry's investment in technology to relentlessly pursue innovative and advanced operational capabilities for our warfighters at a greater speed, relevant to the pace of technology in order to outpace our adversaries. This venture allowed us to understand and take advantage of new DOD contracting and procurement authorities as well as maximizing the utilization of DOD and USSOCOM outreach-to-industry platforms such as Defense Innovation Unit Experimental (DIUx) and SOFWERX.

NSW has learned and applied how to effectively make use of these and other new and emerging opportunities to rapidly bring future operational concepts to the present: such as our realization of Artificial Intelligence-Autonomy of ISR Drones. This example among others, show promise to have exponential impacts on our capabilities to accomplish our mission in a more agile, lethal and sustainable manner. Our efforts—to rapidly prototype, experiment with and lead in new and emerging technologies are aimed at delivering capabilities at the speed of relevancy to our warfighters.

Finally, bottom up, operator-inspired innovation drives experimentation during exercises, and training eventually equates to relevancy and leads to greater success on the battlefield. With our component partners and throughout USSOCOM, innovation is happening at the unit level up and through headquarters. Our focus on innovation is driven by our people—buying down risk to our force while increasing our speed, accuracy, and lethality.

#### PEOPLE: THE FIRST SOF TRUTH

Our primary weapons system remains The Operator. We continue to invest heavily in our personnel, whether it's to train, retain or sustain them. We select, train and maintain persons of character, who are mature, highly skilled, culturally attuned and trusted to execute our nation's most sensitive missions.

Thank you for your role in the preservation of our Force with the 10-year, \$1 billion Silver Strand Training Center-South, the single most important military construction effort impacting the current and future operational readiness of the NSW Force. Once complete, the complex will consolidate the training requirements of today's force, creating efficiencies and synergy of improved operational planning and preparedness, but also allow our operators to spend more time with their families and communities.

We remain committed to the physical and mental health of our operators, as we have a moral obligation to ensure their well-being. Preservation of the Force and Families, our Human Performance Program, and our most important initiatives involving Cognitive Health are about keeping our warriors in the fight, extending their service life, and giving them a high quality life post-service.

With strong Congressional support, the USSOCOM Preservation of the Force and Family program continues to meet and exceed the intent to build resilience and facilitate the long-term care of our operators and their families, while never forgetting our fallen teammates with ongoing support to our Gold Star Families.

Embedded professional care providers working within validated programs have helped turn the corner on many of the negative trends that have impacted those who have been in this long fight. Our usage data shows an increase in service members and families going to see clinical psychologists, licensed clinical social workers, nurse case managers, which speaks directly to de-stigmatization and trust. Similarly, there is a high number of cross referrals among the various care providers that demonstrates mutual support and clinical trust and reliance.

In regard to Human Performance, our athletic trainers, strength coaches and physical therapists provide tailored and operationally relevant programs have resulted in injury reduction and increased recovery time from injuries with a direct impact to overall team readiness.

Our Warrior and Family Support staff provide hands on, personal touch and connection to our families and children, connecting them to all the Service-provided and SOF-unique programs that are so vital to the strength and resilience of our family members.

We have also learned that long-term physical and psychological challenges may result in impacts to one's memory, attention, processing speed, problem-solving, visuospatial function and impulse control which can affect operational performance and mission accomplishment. Given that we are in the longest continuous stretch of armed conflict in our history, learning about the cognitive health of our force is a critical initiative.

We have initiated a Cognitive Surveillance Program that will be a more pre-emptive approach to intervention where cognitive impacts are indicated. More broadly, this initiative will seek to identify injuries earlier, track individual trends, and assist in developing comprehensive treatment plans to aid in the recovery of our service members. The end-state is to get NSW operators back into the fight while contributing to their long-term wellness.

The Surveillance Program entails an initial baseline screening of all SEAL/SWCC operators within NSW by 30 June 2018; and ongoing re-testing every 2 years to assess significant change, similar to other routine exams such as dental or audiogram.

Aggressive efforts include increasing awareness of potential issues and not waiting for perfect solutions. Therefore, we are actively 'driving the science' through our blast exposure research efforts, ultimately looking to create a 'dive-table-like' approach to heavy weapons/breaching exposure levels and mitigation needs.

NSW continues to seek and offer best practices as we develop our cognitive health emphases. We rely on education, informed research efforts, and leadership support across the continuum of care to help mitigate the range of brain injuries and increase recovery rates for our members.

Part of that continuum of care focuses on our transitioning veterans, whether at 4 years or after forty, with a holistic, SOF-unique initiative called Future Former Frogmen, or F3. F3 focuses on ensuring the successful transition of our active duty into civilian life by leveraging our neurocognitive science initiatives, continuum of leadership development efforts, readiness support programs, and veteran's resources. F3 provides structure, process and guidance throughout the complex transition experience giving the service member access to existing programs to ensure NSW veterans remain resilient. SOF for Life, a powerful support network, continues from active duty life to veteran life.

Today in Coronado, California, at the Basic Underwater and Demolition / SEAL school, otherwise known as BUD/S, there are approximately 100 of America's best and brightest going through training to be part of the Navy's elite special operations maritime force as part of the most recent class, Class 330.

Just like those seeking to be part of my brethren's communities, those seeking to be part of the SEAL community, those who succeed in the 63-week course will earn their Trident.

At the end of 63 weeks, each student will have swam 48 miles; hiked or patrolled over 150 miles; and conducted at least 40 dives while spending a minimum of 60 hours, or two and a half days under water. As a class, at the end of those 63 weeks, they will have completed the equivalent of swimming from Cuba to the southern tip of Florida, then running to New York City.

That is just a snapshot of what we ask them to do before they have taken their first step into their first operation in defense of our country. It is precisely because of what we ask them to do, starting in Coronado, then around the world, through operation after operation, that we are focused on their long-term health, and the well-being of our Force and Families.

Naval Special Warfare Command will continue to place priority on strengthening, equipping and protecting our people; outpacing our enemies in the employment of new technologies and accelerating trends, enabling us to compete below the threshold of conflict. We will refine and adapt our organizational structure to ensure Naval Special Warfare remains relevant and lethal, and when necessary, stands ready, willing and able to engage in combat to fight and win decisively for many years to come.

Thank you for your time, your care for our Naval Special Warfare community, and I welcome the opportunity today to answer your questions.

Senator ERNST. Thank you, Admiral.  
General Mundy, please.

**STATEMENT OF LIEUTENANT GENERAL CARL E. MUNDY III,  
USMC, COMMANDER, MARINE CORPS FORCES SPECIAL OP-  
ERATIONS COMMAND**

Lieutenant General MUNDY. Chairwoman Ernst, Ranking Member Heinrich, thank you for providing me with the opportunity to appear before you this morning.

I have the honor of serving as the sixth Commander of Marine Corps Forces Special Operations Command, or MARSOC [United States Marine Corps Special Operations], as it's more commonly known. I very much look forward to telling you about MARSOC and what your Marine Raiders are doing to help protect the American people.

MARSOC is the Marine Corps' contribution to U.S. Special Operations Command, and it's the youngest of the four SOF service components, having been established just 12 years ago, in 2006. However, our roots extend back to World War II, when President Franklin D. Roosevelt, determined to bring the war to our enemies as rapidly as possible, considered the Marine Corps to be an ideal organization for the President's vision of commando operations. So, in January 1942, the Marine Corps established two Raider battalions, with the missions of conducting raids against Japanese-held territory in guerrilla-type operations behind enemy lines.

In that historical mold, MARSOC today produces Marine Raiders to conduct full-spectrum special operations to combat complex transregional problems in support of geographic combatant commands. MARSOC does this by building upon the unique attributes and ethos that we already bring to the table as marines. On top of our bedrock marine identity, we add an assessment and selection process demanding individual skills and realistic world-class collective training to produce agile, enabled, and responsive marine SOF. Our Raiders comprise a tight-knit community of specially selected and trained critical-skills operators and combat and combat service support specialists that are task organized for every mission.

Like my fellow component commanders here today, I execute title 10 authorities as the MARSOC Commander to man, train, and equip SOF, and then provide them to SOCOM for missions that support the geographic combatant commanders. Our authorized strength is approximately 3,000 marines and sailors along with 200 civilians. All together, we represent just over 4.5 percent of SOCOM, and we account for 2 percent of its annual budget.

Although able to support operations globally, the majority of our forces deploy to Central Command, Africa Command, and Pacific Command regions. MARSOC's base unit of deployment is a Marine Special Operations Company, or MSOC, which we provide persistently on a 6-month rotation to each of these regions. On average, MARSOC has approximately 400 Raiders deployed across 18 countries, performing various special operations tasks. Currently, our special operators average 1 day overseas for every 1.9 days at home, and our capability specialists, such as communicators, intelligence specialists, explosive ordnance disposal technicians, and the like, tend to have a higher tempo that varies from between 1.5 and just less than 1 day at home for every day deployed. While high, this operational tempo is manageable. We continue to benefit from MARSOC's Preservation of the Force and Families Program as a

critical tool to maintain the health of our force. We pay close attention to the behavioral health of individual Raiders, and are always looking to expand and innovate the individual programs and services we provide to their families to relieve them of the strains of ordinary life, increase their resiliency, and help them better manage the stresses associated with frequent operational deployments. Our people, not technology or any other particular capability, represent our most precious resource. It's one that we must preserve and cultivate as we look to the future.

My priorities within the command reflect both MARSOC's commitment to its people as well as the requirement to develop the— for the future. They are, first, to provide integrated full-spectrum SOF; second, to better integrate the capabilities of SOF with the Marine Corps's air-ground teams; third, to develop MARSOC's future force; and, finally, to preserve our force and families. MARSOC is full of supremely talented and dedicated Americans, and I feel especially privileged to be able to represent these fine women and men to you today.

I'll close by saying, once again, that it's an honor to be here today and to speak to you about our mission. Thank you, as well, for what you do for our Nation and our military, particularly the support that you provide in terms of funding and oversight. I appreciate your interest in MARSOC and look forward to your questions.

Thank you.

[The prepared statement of General Mundy follows:]

#### PREPARED STATEMENT BY MAJOR GENERAL CARL E. MUNDY, III

##### INTRODUCTION

Marine Raiders are the Marine Corps' contribution to United States Special Operations Command (USSOCOM). Through specialized and advanced training, MARSOC builds upon its unique attributes and ethos as Marines to produce agile, scalable, fully-enabled, and responsive special operations forces (SOF) comprised of operators and special operations-specific combat support and combat service support specialists. MARSOC formations task organize for every assigned mission and leverage their robust command and control capability and their ability to fuse operations with intelligence down to the team level. All of these factors enable our Raiders to succeed in distributed environments and enable partners at the tactical and operational levels of war. MARSOC contributes to the SOF enterprise and U.S. combatant commands by providing full spectrum special operations capabilities to combat complex transregional problems.

Established in 2006, our organization continues to address the most immediate threats to our Nation and has become a key participant in the ongoing fight against violent extremist organizations. Accepting this, we are also cognizant that we must work to minimize pressure on our force and our families as we simultaneously prepare for future threats. We ensure preparedness by adapting our training methods using feedback from currently deployed forces to better prepare our Raiders for what they will encounter while deployed. Simultaneously, we minimize pressure on the force by ensuring adequate access to Preservation of the Force and Families (POTFF) resources. We recognize that our operational capability ultimately rests upon a foundation of outstanding individuals and their families. In order to safeguard and sustain MARSOC's human capital, our most valuable resource, we continually strive to balance operational commitments with time Raiders spend at home station. Part of our effort to take care of families involves ensuring that our POTFF program not only delivers responsive and effective support, but that it continues to evolve with changing demands and needs of our force.

##### BACKGROUND

During my tenure as the Commander of MARSOC, I have continually been impressed by the caliber of our individuals, be they marines, sailors, or civilians. They

are well trained, well equipped, and provide the full spectrum special operations capability that has been crucial to success on the modern battlefield in places as diverse as Mali in West Africa, contested areas of Iraq, and Marawi in the Philippines. Twelve years on, MARSOC is maturing into a full and integral member of the SOF enterprise just as it continues to provide Raiders to counter our Nation's threats. Taking into account where MARSOC is today, we would be remiss if we did not acknowledge some of the formative episodes in the history of our Marine Corps that got us here.

The United States Marines Corps' rich history is one that is replete with expeditionary operations against what we know today as irregular threats. These actions serve as the foundation for what is Marine Corps Special Operations today. Although the United States Marine Corps (USMC) did not provide a service component to the United States Special Operations Command (USSOCOM) until 2005, the Marine Corps has demonstrated an ability to conduct and support special operations throughout its history.

In the early years of America's involvement in World War II, President Franklin Delano Roosevelt was determined to bring the war to our enemies as rapidly as possible. Because of the Marine Corps' historical successes in small wars and its recent development of amphibious operational concepts, it was considered to be the ideal parent organization for the president's vision for "commando" operations.

In January 1942 the United States Marine Corps established two Raider battalions. The mission of the new Raider units was to spearhead amphibious landings, conduct raiding expeditions against Japanese held territory, as well as conduct guerrilla-type operations behind enemy lines for extended periods. Marine Raiders were intellectually dynamic, morally disciplined, and physically fit with an irrepressible sense of duty, loyalty to one another, and imbued with a "Gung Ho" spirit in the face of adversity ... much like the marines and sailors we select and train as Raiders today.

During the Vietnam War and throughout the Cold War era, the Marine Corps did not formally possess a specialized unit. However, many Marines were members of specialized Joint and certain, tailored conventional units, such as force reconnaissance and Marine Expeditionary Units (Special Operations Capable). These units performed some of the types of missions we associate with Special Operations today. The complex global environment produced by the end of the Cold War as well as the world changing events of September 11, 2001, prompted an almost immediate need for additional special operations capacity capable of achieving operational and strategic effects. In light of these events and the pressing need for more SOF, Secretary of Defense Donald Rumsfeld called for the Marines to work more closely with USSOCOM.

After validating an initial proof of concept in 2004 known as the Marine Corps Special Operations Command Detachment (DET One), the Secretary of Defense directed the Marine Corps to provide a permanent contribution to USSOCOM—what would become Marine Corps Forces, Special Operations Command—in November 2005. On 24 February 2006, MARSOC activated at Camp Lejeune, North Carolina as a service component assigned to USSOCOM. MARSOC today comprises a headquarters, one Marine Raider Regiment, one Marine Raider Support Group, and the Marine Raider Training Center. The Command has forces on both the east coast at Camp Lejeune, North Carolina, and on the west coast at Camp Pendleton, California. Presiding over a total force of approximately 3,000 marines, sailors, and 200 Federal civilians, the Command is employed across the globe executing special operations missions in support of SOCOM and the geographic combatant commands that span the SOF core activities. With a focus on counterterrorism, direct action, special reconnaissance, foreign internal defense, security force assistance, and counterinsurgency, your modern-day Raiders also have the capability to directly support hostage rescue and recovery, countering of weapons of mass destruction, unconventional warfare, foreign humanitarian assistance, military information, and civil affairs operations. In order to achieve success and provide full spectrum capability across this wide swathe of core activities, we must prioritize our efforts.

#### MARSOC PRIORITIES

Understanding our role as a force provider and capability generator within the SOF enterprise, we have taken the SOCOM Commander's priorities of "Win, Transform, and People," and applied them to how we prepare our forces to accomplish assigned missions. To this end, MARSOC currently focuses on four priority areas: the provision of integrated full spectrum SOF, capabilities integration between SOF and Marine Air Ground Task Forces (MAGTF), future force development, and the preservation of the force and families.

*Priority 1: Force Provider*

Our first priority is to provide integrated full spectrum SOF that are task organized, trained and equipped to accomplish assigned special operations tasks. At any given point in the year, MARSOC has approximately 400 Raiders deployed across 18 countries carrying out assigned missions. We maintain three, forward task organized Marine Special Operations Companies; one each in Central Command, Africa Command, and the Pacific Command areas of responsibility. In addition to company-level deployments, we maintain one persistent O-5 (Lieutenant Colonel) level Special Operations Task Force in Central Command and a one-third rotational split with Naval Special Warfare Command for an O-6 (Colonel) level Combined/Joint Special Operations Task Force Headquarters, also in Central Command. At every level, these deployed formations bring integrated capabilities across all functional areas and allow us to operate across the full range of special operations missions. We believe that it is these high-end capabilities that provide our forces with a competitive edge against the adversaries we face.

Providing our force begins with the recruitment process and continues through our assessment, selection, and individual training pipeline. We are focused on recruiting the best individuals from across the Marine Corps. Based on the results of our deployed forces and feedback from supported commanders, our recruiting and selection methods are working. Our training is progressive. As individuals earn new special operations specialties, they are moved to teams or special skills training environments. This training continues until deployment and covers everything from individual skill sets to high-end, advanced, complex unit collective training.

In order to assess and certify Marine Special Operations Companies for deployment, MARSOC has created the RAVEN exercise. Held six times each year, RAVEN emphasizes realistic decision making for company and team commanders and provides a venue to practice the full planning, decision, execution, and assessment cycle. Alternating between Gulfport, Mississippi and Smyrna, Tennessee, RAVEN is a living exercise that enables MARSOC to incorporate the most current lessons from our deployed units as well as anticipated enemy actions inform and support ongoing joint contingency planning. For example, our most recent RAVEN conducted in Tennessee, featured a more robust foreign intelligence threat that undertook both physical and technical surveillance against our Marine Special Operations Teams. During this RAVEN we also exposed our teams to the degraded communications environment we would expect to encounter when facing a near-peer/emerging competitor.

The training environments we create are dynamic. Not only do they prepare our Raiders for the current operational challenge, but they also evolve based on emerging threats and our expected participation in support of standing operational plans. Another benefit of the RAVEN exercises is its utility as a venue for integrating conventional Marine Corps resources into what is otherwise a SOF-centric exercise.

*Priority 2: Capabilities Integration with MAGTFs (Interoperability, Integration, and Interdependence)*

Second, we provide a bridge for routine capabilities integration with SOF and the deployed Marine Air Ground Task Forces to fully maximize the complimentary capabilities of each formation; especially in light of near-peer/emerging competitors. Given the threats present on contemporary battlefields and considering those we expect to face in the future, it has become increasingly important for SOF to be able to integrate “seamlessly” with the conventional forces and vice versa. Conventional forces offer capabilities and a capacity that simply do not exist in our small formations. In today’s complex operating environment, the extent to which we, across the Joint Force, are able to leverage one another’s strengths, and thereby offset our vulnerabilities, could determine the difference between success and failure. Cyber and space based capabilities, intelligence exploitation, mobility, fire support, logistics and medical support, are all examples of capabilities that we partially rely on conventional forces to provide— especially in scenarios involving high intensity combat.

Examples of interoperability and capabilities integration occur every day across the globe from Syria and Iraq, Afghanistan, the Philippines and remote locations in Africa. With deliberate efforts to participate in each other’s wargames, exercises, and training, we can institutionalize these efforts to the point that they become routine.

*Priority 3: Future Force Development*

As the operating environment evolves and more complex threats emerge, MARSOC must adapt its force to meet these new challenges. Constant and deliberate innovation, and evolution is critical to our success. Our concept for develop-

ment is based on both a bottom-up driven process that incorporates immediate battlefield feedback into our training curricula, equipment research, testing, procurement; and a top-down approach that combines more traditional capability acquisition processes with longer-term future concept and wargaming efforts.

Regarding equipment development and acquisition, we are tightly integrated with SOCOM and the Marine Corps and look forward to benefiting from the ongoing efforts of SOCOM's Acquisition Technology & Logistics, SOFWERX, and the Marine Corps' Rapid Capabilities Office. All of these organizations offer us an expedited procurement process for emerging technology. We have already taken steps to bring our vision to fruition with regard to capability development in particular technology areas. These include freeze dried plasma, semi-autonomous seeing and sensing capability, organic precision fires, counter-UAS rapid self-defense, unmanned cargo UAS and ground systems, rapid fusion of big data analytics and machine assisted learning, broadband tactical edge communications, and specialized insertion capabilities. As we research and improve our warfighting capabilities, we must keep in mind that our near-peer/emerging competitors are also making similar advances and investing in emerging technology. It is critical that we ensure that the technological capabilities we opt for are able to operate, communicate, and self-heal in a signals degraded environment.

Likewise from a training perspective, we recognize the need to simulate operations in a degraded/denied communications environment that reflect what we might face when confronting near-peer/emerging competitors. We also plan to continue to improve our proficiency in the critical combined arms skills that both increase our lethality and allow us to maintain a tactical advantage over our adversaries. Last, we acknowledge that we must be able to operate in any climate and place, therefore we are committed to training in environments that replicate the full range of what we may experience on the battlefield.

Complementing our near and mid-term efforts at capability development is longer term work on the development of a MARSOC-specific futures concept. Although this concept bears a resemblance to similar initiatives undertaken with the Department, it very much reflects MARSOC's unique place within SOF and interpretation of what the future operating environment might look like. We see a world overwhelmingly influenced by a resurgence of regional competition and instability. As these two themes collide, the complexity of the operating environment will dramatically challenge the ability of leaders at all levels to first, understand what is happening and, second, make sound decisions. This is the very situation in which Raider formations of the future must be prepared to operate; an urgent, volatile, complex, high-stakes problem that comprises multiple actors and defies the application of traditional U.S. strengths and solutions.

The results of our futures analysis, conducted over the past 18 months, have provided broad implications for the force as well as options which MARSOC can use to shape future capability to meet the challenges posed by the future operating environment. Throughout our internal wargame series, four discrete concepts or "themes" consistently emerged. Each theme describes a distinct aspect of a vision for MARSOC, but at the same time each built upon the others such that the four are interconnected and mutually supporting. Together they provide a strong conceptual basis for a future MARSOC force that outpaces changes in the operating environment and remains a reliable force across warfighting and Title X functions. Collectively, these themes have come together to form the four, core pathways of innovation: MARSOF as a Connector, Combined Arms for the Connected Arena, The Cognitive Operator, and Enterprise Level Agility.

Our futures vision document, MARSOF 2030 explains each of these innovation pathways in depth and also explores how they interconnect with one another. I will briefly introduce them here for the benefit of the committee. "MARSOF as a Connector" is intended to capture MARSOC's facility in building cohesive, task organized teams. It is the idea that MARSOC can be the ideal integrator and synchronizer of U.S. Governmental capabilities with USSOF and partner nation actions. It also acknowledges the non-military nature of many of the problems we face and the need to look beyond for more durable solutions that involve tools other than the military.

"Combined Arms for the Connected Arena" aims to get at the requirement to "sense" and "make sense of" what is happening in diverse and multi-dimensional environments. This second pathway also speaks to the use of cyber and information "domains" as potential venues for conflict now, but certainly with increasing relevance as we look toward the future. From our standpoint, we must become as comfortable operating in these "virtual" domains as we are in the physical.

Perhaps the most foundational of all of our innovation pathways is "the Cognitive Operator". This pathway touches all others. At its core is the idea that the future

requires a SOF operator with an equal amount of brains to match the brawn; foresight in addition to fortitude. Your future Raiders must preside over expanded capabilities that include the ability to influence allies and partners; understand complex problems; apply a broad set of national, theater, and interagency capabilities to those problems; and fight as adeptly in the virtual space as the physical.

The last innovation pathway, “Enterprise Level Agility”, leverages MARSOC’s relatively small size as an advantage. MARSOC possesses the advantage of being a relatively small force with its own component headquarters—this allows the command to rapidly reorient the organization to confront new challenges as they emerge. In other words, MARSOC’s organizational dexterity can provide SOCOM with an agile, adaptable force to meet unexpected or rapidly changing requirements. In this context, MARSOC’s small size becomes a strength; one that can provide both institutional and operational agility to the SOCOM Commander.

*Priority 4: Preservation of the Force and Families*

Calling to mind the SOF Truth that “people are more important than hardware,” our fourth priority is the preservation of our force and families program that provide our Raiders and their families with the access to resources promoting personal resiliency increasing longevity in service. Although listed as my fourth priority, preservation of the force and families is equally as important as the previous three priorities because people are at the heart of all we do. Currently, MARSOF special operators average 1 day overseas for every 1.9 days at home. Our capability specialists that enable communications, intelligence, air support, explosive ordnance disposal, and our canine handlers, vary by occupational specialty but average between 1 to 1.7 and 1 to 1.2 days deployed as opposed to days spent at home station. What these numbers do not reflect is the additional time that is spent away from home while training in CONUS. Although difficult to measure, Personnel Tempo or PERSTEMPO receives significant attention at all leadership levels within the Command such that we aim to balance our service members’ schedules between training at and training away from home station.

Because of this high operational tempo, POTFF has become an integral tool for maintaining the overall health of our force through programs that are focused on improving human performance, providing resources for behavioral health, developing spiritual fitness, and offering other family-oriented opportunities that are designed to strengthen the family unit. We appreciate the continual support from Congress on providing the funding for programs and specialized capabilities to make these programs effective.

CULTURE OF ACCOUNTABILITY:

Closely tied to these efforts, in concert with both SOCOM and the Marine Corps, is our command-wide push to enhance our culture of accountability as it relates to issues such as sexual misconduct, illicit drug use, personal accountability, and unauthorized media release. As an example, our reported number of sexual assault cases remains in the low single digits and we have not had any victim reported incidents in fiscal year 2018. We attribute this low number of incidents to our constant command level messaging campaign and our strong Sexual Assault Prevention and Response (SAPR) program. While we believe that even a single incident is one too many, we continue to strive to eradicate sexual and other forms of misconduct from our force. We strive each day to provide you SOF personnel that continue to embody the values of accountability, integrity, and commitment in honorable service to our nation.

CONCLUSION:

In conclusion, I am committed to providing Marine Raiders that provide the nation with full spectrum special operations capability and whose actions continually demonstrate our motto of Spiritus Invictus, or “unconquerable spirit”. Your Marine Special Operators will remain always faithful, always forward. I thank the committee for your continued support of our military members and their families and also for your commitment to national security.

Senator ERNST. Thank you, General.

Again, gentlemen, thank you. Excellent opening statements.

In your opening statements, you did very briefly go through the skillsets that are particularly unique to your own components. If you could, just—and each of you, just briefly answer—within those skills, those operators, the equipment that you have, what gaps do

you see, whether it's within your own component or even between the components, that exist within SOCOM?

General Webb, if we could start with you, please.

Lieutenant General WEBB. Madam Chairwoman, the—we contend, at Air Force Special Operations Command, that our Nation needs us to be a full-spectrum force, with a focus on the low and high end. As I said in my opening statement, with a—we want to continue to hone to a fine razor's edge those low-end capabilities that we have done over the last, you know, decade plus. But, on the high end, it's both conceptual and technology-wise that we need to look—What can we do with weapons—major weapon systems that we already have today, in new and unique ways? Also, looking out to that next horizon, what are those technologies, such as specialized mobility for long range, long distance in contested environments, that could still land vertically, that I think we want to continue to pursue, as well as ensuring that the equipment on the—onboard our current systems measure up to the threat that is potentially out there.

Senator ERNST. Yeah.

Lieutenant General WEBB. Those are the major pieces.

Senator ERNST. Very good. Thank you.

General Tovo.

Lieutenant General TOVO. Senator, just a couple of things. First, I wouldn't identify them necessarily as a gap, but a big part of our challenge has been time to train. So, part of our ability to regain balance in the force and both preserve our forces from an OPTEMPO [Operational Tempo] overuse has been to put more time on the training schedule so that they—we can address that expanded set of skills we need to train against. So, that's already ongoing.

We are always in a continual struggle, much like Rod's force, to make sure that our air systems are able to penetrate the variety of threats that our adversaries are fielding to deny us access. So, that is a constant challenge. It's not a new challenge, but it is one that we're always working to address.

Senator Heinrich talked about the information domain and our tools to compete with our adversaries in that domain. That is something that we're looking at very closely, on how do we get beyond loudspeakers and leaflets, and really get our psy-op [psychological operations] capability to be able to wield operational and strategic-level tools. A big part of that, though, is not about tools so much as it is about the authorities and permissions to use them, and how we, as the U.S. Government, decide to divvy up the information domain in this competitive space, and what agency and executive branch owns what responsibilities.

So, it's just a couple of the highlights. I'll—

Senator ERNST. Very good.

Lieutenant General TOVO. We can certainly go further if you'd like.

Senator ERNST. Thank you.

We'll go on to the Admiral. Thank you.

Rear Admiral SZYMANSKI. Chairwoman, I wouldn't express them as gaps, either, but I think I've got three that I'd like to kind of highlight.

First, I'll start with people. I think, in the people space, this is the—you know, in places like Iraq and Syria, we're using the virtual advise-and-assist kit. I really believe that SOF can be on the vanguard, particularly on the near-peer competition below the threshold of human-machine teaming. I think that that's a growth area for SOF in this space.

Second is really returning to the unique special maritime capabilities that Naval Special Warfare possesses, but in concert or in interoperability with the Navy. I think, as we look at near-peer access into AZAD or anti-access denied areas, we have something to offer there, but we've got to be—my capabilities have got to be compatible with the Navy's platforms, its ships, its submarines. We're making a huge effort to close, if there is a gap there, but ensure that we're completely compatible.

Third, coming back to the people, one area that's of particular interest to me is neuro-cognitive health and the long-term sustainment of our individuals, both for the low-end fight and the high-end fight. We're learning some things about the brain that we haven't learned before, and exposure to blast trauma and blast, low-level blast exposure, that I'm looking to really kind of close that gap and drive the science.

Senator ERNST. Thank you, Admiral. I appreciate that. Visiting your Mind Gym, that was very important to me. I'll come back here in a little bit and we'll talk a little bit more about some of those efforts, as well.

Thank you.

General Mundy.

Lieutenant General MUNDY. Senator Ernst, just briefly. In addition to time to train, our number-one priority is gaining the personnel that allows MARSOC to build out to the original number that it was supposed to be. And so, we're shy of some critical enablers that would help us buy down the individual readiness numbers that I articulated in my opening statement that would allow us to be able to focus on preparing the force to meet the emerging threats. So, our number-one priority is people, gaining; I think the number is 368 right now.

Senator ERNST. Okay.

Lieutenant General MUNDY. Thank you.

Senator ERNST. Wonderful. Thank you.

Thank you, gentlemen.

Next, we'll move to Senator Heinrich for his questions. Then we have been joined by Senator Dan Sullivan, as well. Not a regular member of our committee, but certainly, Senator Sullivan, after Senator Heinrich is done, if you would like to ask questions, feel free to do so.

Thank you.

Senator HEINRICH. General Webb, I'd like to start with you. I was at Cannon Air Force Base in New Mexico last week, and, as you know, the proud airmen at Cannon and the community there in Clovis provide significant contributions to our national security, both in terms of the incredible personnel and also the aircraft that they operate. They do this despite really what has become an insatiable demand being placed on our Special Forces and their families, by extension. You mentioned, in your testimony, that AFSOC

is working to meet a 1-to-2 deployment-to-dwell for Active Force, which means 2 months at home for every 1 month deployed. Can you elaborate a little bit on why that deployment-to-dwell ratio is so critical to the long-term health of Special Forces, and what progress still needs to be made in that area?

Lieutenant General WEBB. Well, Senator, thank you for the steadfast support to our Air Commandos out on the plains of eastern New Mexico. The deploy-to-dwell ratio for AFSOC stands at—I have 12 percent of my force that is below a 1-to-2 dwell. I have none that are below 1-to-1 at this point. But, the demands of multiple deployments, back-to-back, at this stage in the ongoing countering-violent-extremist type of fight, you have—it is not a rare exception at all for airmen to be on their 12th or 13th, 14th deployment, including those at Cannon Air Force Base. So, the POTFF [Preservation of the Force and Family] program and the Comprehensive Airman Fitness Program from the Air Force side, absolutely vital and critical.

One statistic I would give you, Senator, from a POTFF-result perspective, as we track our airmen as they—before they go out the door and as they return, using POTFF resources, we see 98 percent of our airmen return to ready-to-deploy-again status within 90 days of deployment. Just as a gauge of how useful that program is.

Senator HEINRICH. Twelve and 13 deployments. Have we experienced anything like that in the past?

Lieutenant General WEBB. Senator, not to my knowledge. I mean, obviously, these aren't year-long deployments.

Senator HEINRICH. Right.

Lieutenant General WEBB. They're measured in months. But, I mean, we're kind of in uncharted territory, which was really the genesis of the POTFF Program, to begin with.

Senator HEINRICH. Let me ask you a little bit about high-energy lasers. I very much appreciate SOCOM's investment in high-energy lasers on the C-130 gunship, but I'm quite concerned with the sort of crawl-walk-run approach, when I think we're reaching a point in the technology where we could literally jump from crawl to run. Let me tell you what I mean by that.

It's my understanding that SOCOM's current plan is to demo a 4-kilowatt laser and then one in the 30-kilowatt range, which really isn't operationally relevant for SOCOM's purposes, in my understanding, and then move to a 60-kilowatt-or-higher device. At that rate, the system won't be fieldable until nearly 2030, from what I understand. The technology to develop an operationally relevant laser in the 60-kilowatt range could be ready for integration and fielding, in my view, in the next 4 to 5 years. If the technology is there, what's wrong with skipping the 30-kilowatt demo entirely and moving directly into something that can be used in the field?

Lieutenant General WEBB. Senator, on the front of this airborne high-energy laser, I would couch this as a semi-good-news story. We're starting to see funding that would—could accelerate exactly what you're talking about. In fact, I don't disagree with your assessment at all. The—this presidential budget actually has money from a SOCOM and an Air Force and an OSD [Office of the Secretary of Defense] side, so I appreciate your continued support towards that 34 million. We're 58 million short of having a full pro-

gram that would get us a 60-kilowatt laser flying on a AC-130 by fiscal year 2022. That should be the goal. Like I said, I don't disagree with you at all, and I—

Senator HEINRICH. We look forward to—

Lieutenant General WEBB.—would support you on that.

Senator HEINRICH. We look forward to helping you with that goal.

SOCOM is the joint force proponent for military information support operations, or what we used to call psy-ops. SOCOM's military information support teams frequently deploy to embassies around the world, help with embassy public diplomacy efforts. How are SOCOM's information operations capabilities being transformed to a more effective—to more effectively compete with the operational and strategic messaging challenges that we see in our adversaries today? Can you talk about that a little bit more, General Tovo?

Lieutenant General TOVO. Yes, Senator. We have invested fairly heavily in our psy-op operators, developing new capabilities, particularly to deal in the digital space, social media analysis and a variety of different tools that have been fielded by SOCOM that allow us to evaluate the social media space, evaluate the cyber domain, see trend analysis, where opinion is moving, and then how to potentially influence that environment with our own products. As I mentioned, we have the knowledge and the skills to operate in this domain. Much of the difficulty lies in getting—

Senator HEINRICH. Getting the authorities.

General TOVO.—the appropriate authorities and permissions to do so.

Senator HEINRICH. Well, and let us know what your views are and how you think those should be organized.

Lieutenant General TOVO. Senator.

[The information referred to follows:]

Lieutenant General TOVO. I defer to the Office of the Secretary of Defense and US Special Operations Command to provide the Department of Defense view on military information operations authorities.

Senator HEINRICH [presiding]. Senator Sullivan, welcome. We really appreciate your interest in the committee. The time is yours.

Senator SULLIVAN. Great, thank you, Mr. Chairman.

Gentlemen, welcome.

I wanted to start—and, General Howell, maybe I can begin with you, but I guess this is a question really for all the witnesses—but, certainly the counter-WMD [weapons of mass destruction] mission is one of the most important and, really, kind of, evergreen missions that our country will have. We can defeat ISIS, we can defeat al Qaeda, but, as long as we have the great republic that we defend, the counter-WMD mission is going to be top priority.

U.S. SOCOM recently took over responsibility of that. I've had a number of conversations with General Thomas about that. How do you think it's going? It's not like your forces don't have a lot on their plate, and now they're taking the lead on probably, in some ways, the most important mission we have in the U.S. military, from my perspective. Are you concerned about integrating this top priority with other priorities that you have? Are there other things that we need to be doing, in terms of authorization or resources,

to enable U.S. Special Operations Command to carry out this mission, which we can't fail at?

Lieutenant General HOWELL. Senator Sullivan, thank you for the question.

As you noted, the counter-WMD mission was passed to U.S. SOCOM a couple of years ago. We've been investing heavily in that. We have been designated by the Department as the coordinating authority for counter-WMD. We've been—which gives us an opportunity to bring together the community of interest to plan, establish intelligence priorities. What it has done, thus far, and in close integration with our colleagues from the Defense Threat Reduction Agency, is bringing together the interagency to one area to look at the problem globally, look transregionally across the boundaries of the GCCS [Global Combatant Commands] and kind of develop the intelligence picture in the priorities. We're also looking at reaching out more to our international partners, who are in this space as well, through EUPOL [European Union Police Mission], INTERPOL [International Criminal Police Organization], law enforcement, as well as our military colleagues from the alliance and coalition elsewhere.

I would say, right now, Senator, we—there's no specific asks for us right now. We're still developing it. We're developing a functional campaign plan that we owe back to the Department and to provide assessment on the way ahead. I think we're—

Senator SULLIVAN. A lot of that work is probably left of launch and involves Federal agencies that aren't necessarily military agencies, but like the CIA [Central Intelligence Agency] and other intelligence agencies. Do you think the coordination, particularly with regard to the networks—I mean, it seems, as we are pressuring North Korea right now, that the proliferation threat has probably never been higher. I also believe it's still very, very high, regardless of the JCPOA [Joint Comprehensive Plan of Action], with regard to Iran. Both countries have a long history of proliferation. Do you think that the networks that we need to disrupt those networks are in place? Is there sufficient integration, say, between the SOF forces and the CIA and other elements of the Federal Government that work to defeat those networks?

Lieutenant General HOWELL. Sir, thanks for the question. I think the—the short answer is yes. I think the cooperation—

Senator SULLIVAN. Do we have enough resources on that side, do you think?

Lieutenant General HOWELL. There are so specific asks yet, because we're still, you know, building the functional campaign plan and building the picture. But, I would say the interagency cooperation is exceptional in this area. As you described in the beginning of your comment, staying well left of the shot is our goal here. That's success for us. I think we're well-postured with our interagency partners to be in position of advantage to do something when the opportunity arises.

Senator SULLIVAN. Let me ask another question that kind of relates to—and again, I've talked to General Thomas and Secretary Mattis about this, but, you know, as we have a new National Defense Strategy, which I think has bipartisan support in the Congress, and that's focused much more on kind of peer rivals and

great-power threats, that it's a shift, of course, from the terrorists and al Qaeda and post-9/11 focus, which, at the time, I think was appropriate, but it's an appropriate shift. How are your forces—and this is for any and everybody—how are your forces starting to implement that?

Let me just give you an example. You know, in Afghanistan or, say, in parts of Africa, we have, I would call them, more—and maybe not so much in Afghanistan, although it depends on the threat, but in Africa, a low-intensity threat, a terrorist organization that, while disruptive for that region, is not necessarily—poses a threat to the United States and our citizens, unless, of course, they're traveling there. Yet, we do have some of your forces that are focused on those areas and those threats. And, of course, you have the highest-trained, most valuable forces, in many ways, in the U.S. military.

Are we starting to, kind of, shift, in terms of the great-power focus, China, Russia, North Korea, in the special operations field, the way that the Secretary has laid it out in the National Defense Strategy? Sometimes I think a number of us worry that we have these incredible military members, that you're all in charge of, going after, you know, targets that, while, at some level, are disturbing, are not threats to our country. I mean, if we have a predator feed on a low-level Taliban guy on a motorcycle for 7 hours in Afghanistan, is that the proper use of your forces, relative to the threat, particularly in light of the National Defense Strategy that says the focus needs to shift? I'll open that up to anybody and everybody. What are we doing about it?

Lieutenant General TOVO. Senator, I can tell you. I think what you're describing is really, how do we balance priorities worldwide? I think SOCOM's got a pretty good process that's fairly flexible and adaptable as the priorities coming out of the national capital region change. We've got the ability to kind of reevaluate where we have put our forces, and for what purpose.

I will say, though, that if you look at our current worldwide disposition, we are already, I think, in many places, already doing what the National Defense Strategy tells us to do. If you look at the SOF commitment in Europe, for example, they are not purposed against a counter-VEO problem, for the most part. They are there in much of the Balkans, but also all over eastern Europe, helping partners and allies with just the challenge you described of an adversary state trying to disrupt our partners and allies. I think we are already in that methodology. You could say the same about some of our work in Korea and broadly across the Pacific.

Senator SULLIVAN. Do we need 1,000 troops in Niger, General?

Lieutenant General TOVO. Sir, that's a question best asked of the operational commander at AFRICOM. I think part of what we've learned in the war on terrorism is that we've got a—an enemy that is willing and able to move his base of support globally, or certainly regionally, between Africa and southwest Asia. The question is, how much, as a Nation, do we want to invest in trying to help a partner nation preserve stability so a nascent threat or a growing threat doesn't get to the point where it truly is a strategic challenge to the U.S. That's kind of a daily conversation. Those con-

versations are happening to try and evaluate, how much do we invest in Niger compared to, do we shift forces to some other threat?

Senator ERNST [presiding]. Thank you.

Senator SULLIVAN. Thank you, Madam Chair. I have to go pre-  
side right now.

Senator ERNST. Okay.

Senator SULLIVAN. Otherwise, I would stay around for—

Senator ERNST. Well—

Senator SULLIVAN. Very interesting. Thank you for your service, gentlemen. To all the men and women under your command, we very much appreciate what they're doing.

Senator ERNST. Thank you for joining us, Senator Sullivan. We appreciate that.

We will do just a very quick round, with Senator Heinrich and I, before we move into a closed session.

So, I do want to go back. Admiral, we talked about the Mind Gym. Many of you have brought up POTFF, which has been really important to me. You have mentioned the dwell time, the minimal dwell time that your operators have, how about all comes together, how it's affecting them. The operators are put in very difficult circumstance. Many of them return home and have physical difficulties.

I'll share one story with you. I had the opportunity to visit Fort Bragg, just a couple of years back, and a very, very good friend of mine was with a group there, a Special Forces group. I had the opportunity to go to THOR3 [Tactical Human Optimization, Rapid Rehabilitation and Reconditioning Program] with him and do one of his workouts. I'm not embarrassed to say I had my rear end kicked by a one-legged man as we went through some of his training. But, it demonstrated to me how important these programs are in getting our operators back to where they need to be, whether they will reengage in the fight or whether they will prepare to be medically discharged.

So, if you could, from your own experiences across the panel, please explain to me why you think POTFF is important. What have you seen with your operators to demonstrate why it's important?

General Webb?

Lieutenant General WEBB. Madam Chairwoman, as I said—and, in fact, my command chief, Chief Smith, and I were just at Walter Reed visiting one of our wounded airmen that was there, had been shot in Afghanistan last year. You know, his point to me was, he's got 22 months til his team goes out the door again. He's got a left arm that he needs to get back in full shape. His mindset is already there. That is one vignette. Of course, there's a ton at this table that you could go to. But, it's that kind of resourcing and that kind of mindset that's instilled, you know, mind, body, spirit-wise, from our airmen, in my case, that is a really—a difference-maker. That gets driven home every time we have one of these visits.

Senator ERNST. Thank you.

Lieutenant General TOVO. Senator, I think it's important to understand that the capability that we get out of a military treatment facility is really designed to return an individual to a baseline of performance, and that the—our programs within POTFF are de-

signed to try and not only get—to pass that baseline, really to get to that full high level of performance that we demand out of our special operators. From a performance perspective, it's kind of the SOF ad, if you will. You know, it's the P-11 slice of what the services have invested in.

But, rather than talk about, you know, kind of, the numbers of the program and access to care and all those great things that POTFF has allowed us to do, I would just share that, as I go around and I talk to both soldiers and their families, what I hear, particularly from family members, is that over their—the course of their career, they've heard an awful lot about support of families and how much we care about families and the soldiers, themselves. Many of them say, “The first demonstrable thing we can point to that really shows you care about how much you're deploying my spouse and how much you're asking of them, day in, day out, combat deployment after combat deployment, are the POTFF program aspects that have truly focused on: How do we help our families not only survive this experience, but really thrive as Army Special Operations families?”

Senator ERNST. Thank you.

Admiral.

Rear Admiral SZYMANSKI. Thank you for—for all of us. A lot of it's about return to duty, as General Tovo just mentioned on the performance piece. It's return to duty, it's cutting down the recovery time. It's about extending the service life of the individual, and ensuring they have a good transition, post service, with a high quality of life. But, I think, in essence, it's improved the operational readiness of the organization. It's strengthened—your favorite word—resiliency of the families. When the family is strong, then the unit is going to be strong. I think that's it, in a nutshell. But, the cognitive piece is really important, again. I maybe can talk more in the closed session about that.

Senator ERNST. Thank you.

General Mundy.

Lieutenant General MUNDY. Just all of the above. That's pretty easy to just pile on top of that. It's important, because of the way that it fuses all aspects of readiness together—mental, spiritual, physical—and then the families, as others have alluded to here. And so, I get around. And in—I'll just say, in 35 years, you can usually find someone who will critique a program or a process, but nobody in MARSOC critiques POTFF—MPOTFF, in our POTFF. It's invaluable to us.

Senator ERNST. Thank you. I appreciate that.

Senator Heinrich.

Senator HEINRICH. Thank you.

General Tovo, I want to ask you a little bit about SFABs [Security Force Assistance Brigades]. As AFSOC forces have continued to experience increased demand from combatant commanders and particularly in an advisory role for foreign forces, how is the establishment of SFABs as dedicated advisors for conventional foreign forces affecting your ability to refocus on other essential missions?

Lieutenant General TOVO. Senator, thanks for that question.

I think it's important to understand that the Army's—Chief of the Army's design for the SFAB was really threefold. One was to

prevent existing brigade units from being essentially broken down and piecemealed into combat advisory roles in Afghanistan or Iraq, as well as then to improve our ability to do advisory work as an army of conventional partners, and then, lastly, to have a cadre of leadership—NCO [noncommissioned officer] and officer leadership that, in the case of a national emergency, we could add the junior enlisted members to it and we'd have additional force structure.

So, that's kind of the framework of why the SFABs are created. As you look at what they're doing right now—so, right now, the first SFAB is in Afghanistan, and most of what it is doing is trying to advise conventional Afghan formations—formations that SOF was not partnered with—in order to better enable those Afghan formations to fill their role in the security environment. We are an indirect beneficiary of that.

Senator HEINRICH. Right.

Lieutenant General TOVO. The challenge we had was, we were partnering with Afghan SOF forces that were doing great work clearing villages and valleys, and yet there was no hold force. I think this will help that. A better partnered conventional Afghan force will be able to fulfill a role that was missing. At this point, I don't see it supplanting what we are currently doing, though. We are working with Afghan Special Operations Forces, and they're going to focus on Afghan conventional forces.

Now, sometime in the future, in other environments, can we see the SFAB employed doing some of the work that right now we have SOF teams doing? That's—

Senator HEINRICH. Sure.

General TOVO.—certainly a possibility. Right now, it hasn't developed that way.

Senator HEINRICH. As we continue to stand up that entire enterprise, do you think it's going to be important for SFABs to have the ability to regularly train in the kind of environments where they will be in that supportive role?

Lieutenant General TOVO. Senator, absolutely. One of the things, I think, that challenged the previous incarnation of SFABs, the regionally aligned forces, was not having the full authorities and funding mechanisms to deploy into the environments that they needed to be training in. So, I think, at some point, some kind of authority and funding mechanism, much like we use the JSET authority for, might be valuable for the Army.

Senator HEINRICH. Madam Chair, I'm going to yield back the rest of my time so we can get to our colleagues.

Senator ERNST. Thank you.

Senator WICKER.

Senator WICKER. Tell me—whoever wants to answer this—how's morale, servicewide? Have our troops noticed that sequestration is over and that things are looking up, in terms of resources? Who wants to take that?

Lieutenant General TOVO. I'll take a stab at that, Senator, thanks.

I'll tell you, as I talk to our operators and our soldiers in the field, morale is uniformly very good. They are stressed, they are working hard, but most of them are doing exactly what they signed up to do. If you told them tomorrow that they were not going to

ever deploy again, I'd probably have some challenges on my hands, as far as long-term morale. They are doing what they came into our force to do.

A great indicator of that is, we have phenomenal retention rates. People like what they're doing, they love being in the SOF family. And so, uniformly, both the soldiers and their families are happy with the environment that we have helped create, and I think we're in a pretty good place, for now.

Senator WICKER. Yeah, it really takes your breath away that they step forward, knowing they've signed up for a very difficult task.

Any reaction to the increased resources and the lifting of sequestration, or is that something they haven't zeroed in on?

Lieutenant General HOWELL. Sir, I think, from the SOCOM perspective, we are very well resourcing. General Thomas has been consistent. Our budget continues to rise. We're still a small slice of the overall DOD. We still have an over-reliance on the Overseas Contingency Operations Fund, which doesn't allow us to modernize. That and the continuing resolutions make it difficult to modernize the force. So, that will be something we're interested in focusing on to improve our capability to focus on near-peer competitors.

Rear Admiral SZYMANSKI. Senator Wicker, I also don't think it's completely down at the deck-plate level yet, because the morale—because we are funded through SOCOM at the individual level really well for the things we do. But, where it has shown confidence—and I can indirectly talk to the fact of the interoperability, our warfighter talks with our service components, who, in effect, it may be more by sequestration, because we're—people-driven organization, where often there are platform-centric organizations. I was just talking about my priorities for interoperability with the Navy and ensuring my capabilities are compatible with the Navy's assets, capital assets. We're in great dialogue, and I think it's all an indicator of the budget, Presidential Budget recommendation.

Senator WICKER. Well, you know, I appreciate your saying that. I would just say, you know, the—this—the Secretary of Defense says sequestration did, really, more damage over a few-year period than an enemy could have done. Several of us took a pretty tough vote when it came to those budget numbers, and there's been—I think there's certainly a lot of concern, on the other side, of the fact that we do have a deficit and we are adding to the national debt. I think, on balance, the majority of Congress was persuaded by the words of our Secretary of Defense that we need to quit doing the—more damage than an enemy could have done. And so, I'm very satisfied with the fact that we took a tough vote and gave you the whole military \$80 billion worth.

Madam Chair, when I came in, Senator Heinrich was asking a specific question about Afghanistan. Who would like to take this question? It seems to me that the vast majority of the citizens of Afghanistan, across the tribal differences, appreciate our presence there, think we're about to win this thing, and want us to see it through. Am I correct there? Who could comment? Who is able to—General Howell, if you'd take that question.

Lieutenant General HOWELL. Sir, one of—it's probably more appropriate for General Votel, the CENTCOM [United States Central Command] Commander. But, having served in Afghanistan as recently as last May, I can attest to what you state there. The confidence that the Afghans have, knowing that we're going to be there with them for the long term, really buoys their confidence. You can see it in the way they train, the way they come to work every day, and the way they fight. Not only the Afghan Special Security Forces that our operators train, advise, assist, and accompany, but, overall, the Afghans outside of the defense structure that I came in contact with. It's just one small picture from my personal point of view.

Senator WICKER. Taliban's on the wane there.

Lieutenant General HOWELL. Sir, I think they are. They're in a tough position right now.

Senator WICKER. Thank you, Madam Chair.

Senator ERNST. Thank you.

Senator Peters.

Senator PETERS. Thank you, Madam Chair.

Thank you for—the panel, for your testimony today, and, more importantly, for your service to our country every day. We appreciate it.

This committee is about emerging threats and emerging capabilities. I think an awful lot about, particularly, those emerging capabilities in terms of new technology and new innovation that's coming online. I'm very involved, for example, with self-driving cars, as—being the Senator from Michigan. This is technology that'll transform the way we get from point A to point B, but also really transform just about everything in our economy, as well. Certainly, the implications for warfare are equally as transformative as we move forward.

Something that I discussed with Secretary Mattis was that we can't just be the leader in good technology. You have to match that with doctrine and tactics, as well. Specifically, in talking to Secretary Mattis, as a historian, who, in addition to being the Secretary of Defense, talked about the advantage the French had in tanks in World War II, but found themselves quickly outmatched by the German blitzkrieg that changed everything, despite the technological superiority.

My question to all of you, because you are trying to figure out how to integrate some of these new technologies in very innovative ways, if you could talk a little bit about how that's going, what we need to do, and how some specific platforms you think are particularly promising that we need to support here, from—at the congressional level. Maybe if I could just go down the panel, it will be very helpful.

Lieutenant General WEBB. Senator, thanks very much for the question.

I would agree with everything that—as you just laid it out right there. It is about technology, but it's also about concepts. From Air Force Special Operations standpoint, we kind of have a two-pronged approach, and it's, What can we do with our current systems that we have and—from a standpoint of additive capability, which we're still building out, some as we've transitioned a number

of our airframes, but it's also about concepts for the usage of that. There is a concerted effort that we are doing, in conjunction with SOCOM and the Air Force, with Strategic Capabilities Office, DARPA [Defense Advanced Research Projects Agency], Air Force Research Laboratory, et cetera, to look at some new concepts and new technologies. Then there's the other leg of, what kind of game-changing kind of technology could be applied in that next ridge-line out? Without getting into specifics in this forum, that's been the approach at AFSOC I'm very comfortable with.

Senator PETERS. Great.

Lieutenant General TOVO. Senator, I think you hit the nail on the head. We've done very well, I think, over the years, on the incremental changes as new technology comes in to kind of take on what we're already doing, and do it a little bit better. About 5 years ago, USASOC stood up a futures staff section designed specifically to look a little deeper in time to understand the implications of technology, demographics, the changing nature of the security environment, in general, and then to understand, through a war-gaming process, how that might apply to us, particularly with scenarios against our current set of adversaries with the advent of new technologies, et cetera, so that we can derive those lessons. I would tell you that much of what we're doing in that deeper fight is trying to stay connected to industry and to the other experts in the field to understand where these technologies are moving to, not just tomorrow or next year, but what does it look like 10 and 15 years into the future, so that we can develop the operational concepts, the doctrine, the techniques, et cetera, as the technology develops.

Rear Admiral SZYMANSKI. Senator, it's a great question. I think the—maybe a little different twist than my colleagues put it, very consistent with what they said, is—most of our organizations were founded to be innovative in concept and not technology. You go back to the history of SEALs and underwater demolition teams, and it was a innovative concept to how we clear beaches to allow amphibious assaults. We would do that much differently today, with the technology that we have.

Secondly, to—without getting into some specific platforms; maybe we can talk in closed session—but we are making some great progress, some promising progress in the incorporation of AI [artificial intelligence] and machine learning, particularly in some of our processing and exploitation and dissemination, that will cut down analyst time. I think, as the CNO [Chief of Naval Operations] likes to talk about, the—and two of the rogue—or revisionist powers that are mentioned in the National Defense Strategy, both of their leaders have talked about the decision speed, and he who owns AI will be the master. I think we're in a race with this incorporation. It's important, I think, that we continue to press hard on the AI and machine learning.

Senator PETERS. Right. Right.

Lieutenant General MUNDY. Senator, our approach is twofold, kind of near term and far term. In near term, we approach it from an additive capability, take already existing programs and look to add some of this new technology into it. We have a very small capability development group in our organization, and it's one of the areas that we'd look to grow, here, going forward in the future.

Our long-term view, I think, like everybody here, as we see that we're on the cusp of machine learning and AI and those sorts of things, how to get in front of that. We've also published a futures document that looks out about 12 years. It's conceptual and a vision right now. The next step for us would then be to really put some meat on the bones—we've now written a futures document—and to begin to develop innovation pathways that allow us to take some of those new technologies and apply them to our concept.

Senator PETERS. Great. Thank you. Appreciate it.

Senator ERNST. Thank you, Senator Peters.

Now, at this time, we will go ahead and recess. We will move to SVC-217, where we will go into closed session. Just a reminder, it will be a closed session. You must have the appropriate clearance to engage, in 217.

With that, we will close—or, excuse me, recess, and we'll move to 217.

Thank you.

[Whereupon, at 11:01 a.m., the subcommittee adjourned.]

