STATEMENT OF

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BEFORE THE

SENATE COMMITTEE ON ARMED SERVICES

4 APRIL 2017

INTRODUCTION

Strategic deterrence has underwritten our nation's security and preserved our way of life since the end of World War II. The early deterrence theorists in the 1950s and 1960s were able to make their ideas practical during a time of turbulence, rapid technological change, and a contest of two starkly different ideologies that divided the world in half. During this critical time, our theorists – hand in hand with our practitioners – helped carry the Cold War to a successful conclusion.

Today, strategic deterrence is still foundational, but it is also different. Its core principles are the same. Our nuclear capabilities are the foundation and the bedrock for our defense.

USSTRATCOM is a global warfighting command. All our forces, in all domains, stand ready today. Our nuclear forces are safe, secure, reliable, and ready – capable of responding wherever necessary and whenever our nation calls. These forces compel all potential adversaries to realize that any benefits they see in an attack on our nation, or our allies, will be far outweighed by the cost. Our nuclear triad provides military capabilities that give our leadership the flexibility and decision space to respond to any strategic attack. We also have space and cyberspace forces that are critical to the American way of war in every theater. We must employ them decisively, to include defending the space and cyber domains from threats.

USSTRATCOM accomplishes seven assigned Unified Command Plan (UCP) missions; Strategic Deterrence, Space Operations, Cyberspace Operations, Joint Electromagnetic Spectrum Operations, Global Strike, Missile Defense, and Analysis and Targeting. Our vision is to improve our ability to effectively integrate these disparate missions to create an even more effective deterrent. We are working to identify gaps, and work with the services to program and organize for success. With this in mind, USSTRATCOM will continue to change to respond to this dynamic world. We are transitioning to a new Command and Control Facility and will continue to advocate for essential modernization programs. Simultaneously, we are "in the fight" every day, everywhere – which requires a constant focus on today with an eye toward tomorrow.

Our ability to deter major power conflict also depends on our ability to deter in all domains – particularly space and cyber. We must think about any future national security construct from a multi-domain perspective and this involves strategic deterrence. Since 1992, USSTRATCOM has been the primary combatant command responsible for providing strategic deterrence for the United States. The ways and means have evolved, but the end state has endured. Peace is still our profession.

GLOBAL SECURITY ENVIRONMENT

Russia warrants constant attention. Its security strategy makes clear that it is re-asserting itself as a global power. It is modernizing its conventional and strategic military programs, emphasizing new strategic approaches, declaring and demonstrating an ability to escalate, maintaining a significant quantity and variety of nuclear weapons, and according to Russian media reports, is developing hypersonic glide vehicles. Furthermore, Russia has engaged in destabilizing actions in Syria and Ukraine, while also developing and deploying weapons that violate the Intermediate-range Nuclear Forces (INF) Treaty. Russia is also advancing development of counter-space and cyber capabilities.

China is pursuing a long-term military modernization program across a range of conventional and strategic domains with implications in the Pacific region and beyond. Simultaneously, it is modernizing nuclear missile forces, and building out a secure, second-strike capability. Although China still professes a "No First-Use" doctrine, it is re-engineering its long-range ballistic missiles to carry multiple nuclear warheads. It also continues to develop and test its hypersonic-glide vehicle capability. China's pursuit of conventional global strike capabilities, offensive counter-space technologies, and exploitation of computer networks also raises questions about its global aspirations. These developments – coupled with a lack of transparency on nuclear issues such as force disposition and size – impact regional and strategic stability.

Although North Korea is not an existential threat to the United States, it remains the most dangerous and unpredictable actor in the Pacific region. Pyongyang's evolving ballistic missile and nuclear weapons program underscore the growing threat. It continues to defy international norms and resolutions, as demonstrated by a number of provocative actions this past year, including their fourth and fifth nuclear tests. North Korea is also pursuing development of Intercontinental Ballistic Missile (ICBM) and Submarine Launched Ballistic Missiles capabilities, and an improved Intermediate Range Ballistic Missile. These developments highlight its commitment to diversify its missile forces and nuclear delivery options, while strengthening missile force survivability. North Korea also continues efforts to expand its stockpile of weapons-grade fissile material and has demonstrated its capability and willingness to conduct destructive cyber-attacks against the United States and its allies.

Iran continues to develop ballistic missile, space, and cyberspace capabilities – and we remain focused on preventing the development of new threats in the region. While Iran continues to follow the mandates of the Joint Comprehensive Plan of Action, we must remain vigilant to any Iranian intentions that indicate it will pursue nuclear weapons.

Ungoverned or ineffectively governed regions remain incubators for those who seek to attack the world's peaceful societies. Transregional Terrorist Organizations (TTOs) recruit and operate freely across political, social, and cyberspace boundaries. The effect of weapons of mass destruction (WMD) in

the hands of TTOs could be catastrophic, which highlights the importance of our national non-proliferation and counter-WMD efforts. The counter-WMD mission is now led by U.S. Special Operations Command (USSOCOM) but USSTRATCOM is committed to maintaining a close partnership. It is another essential element of deterrence.

THE PROBLEM

For decades now, we have held a military advantage over our adversaries, both from a nuclear and conventional standpoint. That is starting to change. As our nation rightly focused on combating violent extremist organizations and the states that support them, other adversaries have taken the opportunity to develop advanced nuclear and conventional weaponry that rival many of our systems. That is not all: our adversaries are learning from each other and demonstrating advanced understanding of the cyber and space domains.

One of our biggest challenges in the future will be staying ahead of the pace of change we see in our adversaries. We have a problem delivering timely responses to new threats. We don't move fast enough from concept to capability. The pace of change is rapid and demands us to change ahead of the evolving threats, but our processes favor preserving the status quo. We are risk averse, while our adversaries have not. Our industrial base is also fragile in many areas, which complicates our ability to stay ahead of, or in some regards stay even with, our adversaries.

PRIORITIES

I have three fundamental priorities in my command.

Above all else, USSTRATCOM will provide *strategic deterrence* against any potential adversary. Our operations must be ceaseless, deliberate, and enabled by a focus on today's operations and a commitment to modernize our triad, our weapons, our command and control, our space, cyberspace, and missile defense capabilities. Our deterrence efforts must include proactively shaping and messaging any potential adversary.

If deterrence fails, the nation counts on us for a *decisive response*. These responses must defeat any adversary with all the elements of our command's power, in all domains. We must work with all our components and task forces to achieve this outcome. However, mere execution will not suffice in the current strategic environment.

Neither strategic deterrence nor decisive response will function without a resilient, equipped, trained, and *combat-ready force*. To that end, we must embrace the mentality that USSTRATCOM is a warfighting command. Our fight is each day, around the globe. This requires our forces to have depth in capability and breadth in capacity – we cannot do it alone. We must constantly challenge ourselves to integrate with allies, partners, the interagency, DoD, the Joint Staff, and other commands to cover our

seams and gaps, and to ensure we capitalize on the unique capabilities that USSTRATCOM can bring to bear.

THE NUCLEAR FORCE

All elements of our nuclear forces will be assessed in the Administration's coming Nuclear Posture Review – but we have an excellent basis to begin this analysis.

With regard to our nuclear weapons, I serve as a principal member of the Nuclear Weapons Council (NWC): the interagency organization responsible for maintaining and managing the Nation's nuclear weapons stockpile. To ensure synchronization and unity of effort across the Department of Defense and the Department of Energy's National Nuclear Security Administration (NNSA) priorities, the NWC-approved Strategic Plan outlines an approach to sustain the enduring stockpile, align warhead and platform modernization efforts, and identify the essential NNSA industrial capacity required to maintain the Triad. A key element of the current strategy is the '3+2' vision to transition the stockpile of 11 warheads to three ballistic warheads and two air-delivered warheads. Assuming it remains consistent with the current Nuclear Posture Review, full realization of '3+2' requires long-term sustained commitment to the modernization and recapitalization of NNSA's infrastructure, as well as continued development of the human capital and science-based stewardship tools needed to certify and assess the stockpile.

Our land-based ICBMs, sea-based Ballistic Missile Submarines (SSBNs), and nuclear-capable heavy bombers – with their associated tankers – provide strategic deterrence and stability. Considering this, our ICBM's are the most responsive, our submarines are the most survivable, and our bombers are the most flexible. Each element is essential to the security of our nation. The synergistic capabilities of the Triad present adversaries with a complex, multi-layered challenge that also hedges against unforeseen technical problems or changes in the security environment.

The U.S. faces significant challenges to sustain the capabilities that will meet our enduring national security objectives. At a time when Russia and other countries continue to modernize and upgrade nuclear capabilities, nearly all elements of the U.S. nuclear weapon stockpile, delivery systems, and other infrastructure are operating beyond their designed service life. Maintaining strategic deterrence, assurance, and escalation control capabilities requires a continuing, multi-faceted, long-term investment approach.

The investment in, and commitment to, our Nation's strategic capabilities must continue and planned sustainment and modernization activities must be completed on schedule. Any recapitalization program delay will adversely impact the execution of our strategic deterrence mission and degrade our ability – and ultimately our credibility – to deter and assure. Sustained Congressional support, stable and

timely budgets, combined with the hard work of the exceptional men and women who support United States Strategic Command, will ensure that we continue to effectively deter strategic attack, assure our allies and partners, and address both current and future threats.

NUCLEAR COMMAND, CONTROL, AND COMMUNICATIONS (NC3)

Our nation's nuclear deterrent is only as effective as the command and control networks that enable it to function. Therefore, the NC3 system must also be assured, reliable, and resilient across the full spectrum of conflict. Maintaining a credible nuclear deterrent requires modernization and recapitalization of key systems and capabilities throughout the NC3 architecture. The challenges posed by today's security environment make it increasingly important to optimize our NC3 systems architecture while leveraging new technologies. Through continued funding for NC3 modernization programs, we will ensure effective command and control of the Nation's forces for many years to come.

USSTRATCOM requires a NC3 capability comprised of interdependent systems, facilities, and platforms operating throughout the space, air, and terrestrial domains to both effectively execute strategic deterrence operations and provide support for the President as an essential component of the National Leadership Command Capability. As an example of this, USSTRATCOM is working with the White House, national laboratories, and the private sector to improve decision support capabilities, setting the conditions for timely and informed senior leader decision-making under any circumstance, in transit or at fixed locations.

In the space domain, we are transitioning from the Milstar satellite communications system to the Advanced Extremely High Frequency (AEHF) satellite communications systems. AEHF, coupled with the requisite ground node and airborne platform Family of Advanced Beyond Line-of-Sight terminals (FAB-T) will extend capabilities to enable collaboration between the President and senior advisors under any circumstance to improve connectivity with our nuclear forces.

Within the air layer, we are continuing efforts to replace the communications systems on the E-6B Airborne Command Post (ABNCP) and Take Charge and Move Out (TACAMO) aircraft as well as the E-4B National Airborne Operations Center (NAOC) to provide world-wide connectivity to the nuclear forces. In conjunction with communications update efforts such as the Low Frequency Transmit System (LFTS), the Air Force is pursuing a course of action to recapitalize the E-4B platform, which is approaching its end of service life. The selected platform must be capable of meeting all mission requirements assigned to the E-4B NAOC. Additionally, the Air Force continues efforts to field a very low frequency (VLF) and AEHF capability for the B-2 bomber fleet that will ensure beyond line-of sight connectivity throughout the spectrum of conflict.

Within the terrestrial domain, the Air Force completed high altitude electromagnetic pulse hardening upgrades to its early warning radar sites and continues to modernize its Nuclear Planning and Execution Systems (NPES). The construction of the new USSTRATCOM Command and Control (C2) Facility, which will be a key component of nuclear and national C2 architecture. Although we still have some funding challenges and schedule risks, we remain on track for occupancy in 2018. This new facility will serve as a visible reminder to adversaries of our national commitment to maintain modern and effective NC3 capabilities.

ICBMs

With smart and consistent sustainment, modernization, and recapitalization, the ICBM force will continue to provide a responsive, reliable, safe, secure, and effective deterrent force for many decades. However, the Minuteman weapon system is far beyond its intended lifespan. Launch Facilities and Launch Control Centers require investment in repair and modernization. Additionally, vehicles and equipment used to support the Minuteman weapon system require an immediate, long-term investment. USSTRATCOM supports ongoing sustainment and modernization investments in the current Minuteman weapon system.

Minuteman recapitalization is necessary to address the issues associated with operating a weapon system beyond its planned design life, and we must continue that sustainment until the deployment of the Ground Based Strategic Deterrent (GBSD), which will begin initial deployment in 2028.

The GBSD program successfully completed Milestone-A last year and is progressing toward an integrated weapon system solution, including the flight system, weapon system C2 ground launch systems, and facilities. We continue to encourage cooperation between the Air Force, Navy, and industry as they develop the technologies to meet our deterrence needs.

Protecting our force remains a top priority and USSTRATCOM supports completing the UH-1N Helicopter Replacement program, Payload Transporter Replacement, and the ICBM Cryptographic upgrade. These programs should not be difficult and the need is now. Additionally, we must update legal guidance, policy frameworks, and Rules of Engagement to defend all threats, particularly new threats like unmanned aerial systems.

SSBNs

The Ohio-class submarine has been life-extended from 30 to 42 years. Starting in 2027, one Ohio-class SSBN will retire each year, with no margin to extend them further. Continued support for staffing and improvements at naval shipyards, Trident Refit Facilities, and Strategic Weapons Facilities are critical to maintaining the necessary operational availability of the Ohio-class as it approaches end-of-life. USSTRATCOM continues to support and work with the Navy as it modernizes their SSBN force.

As the Navy's "number-one" priority and USSTRATCOM's top modernization item, the design and production of the Columbia-class SSBN must continue for on-time delivery to meet its first strategic deterrent patrol in 2031. The 12 submarines in the class will serve as the survivable leg of the Triad through the 2080s. Ensuring that the Columbia class SSBN remains on schedule and funded throughout the next decade is vital to prevent any capability gaps. Any delay will assert unacceptable risk on our sea-based nuclear deterrent.

We fielded the Trident II D5 missile more than 25 years ago. The Navy has taken steps to extend the life of the Trident missile through the life of the Ohio-class, which enables it to serve as the initial baseline ballistic missile for the Columbia-class submarine. We share the Trident II system with the United Kingdom, as well as the design for the Common Missile Compartment for both countries' ballistic missile submarine classes. We must continue our commitment to the United Kingdom to ensure our strategic forces are equipped with the weapons systems needed to meet operational requirements into the future.

BOMBERS

To ensure our bombers provide a credible deterrence and assurance capability, ongoing sustainment and planned modernization activities must remain on track. I support and appreciate the Air Force's continued emphasis to provide an effective and ready force.

The B-52 will receive a radar system upgrade that will enhance weapons delivery, improve weather detection and avoidance, and aid aerial refueling operations. Potential advantages include range improvements, reduced air refueling demand, longer time-on-station, and a reduced maintenance footprint. The B-52's radar is a 1960s analog system, updated in the 1980s, and is now more than 20 years beyond its service life. Its Current Mean-Time-Between-Failure rate indicates a likelihood the radar will delay, degrade, or fail during a 20-hour mission.

The B-52's structural life extends beyond 2050, but the B-52 TF-33 engine has been in service since 1961 and is facing component wear and diminishing manufacturing sources. USSTRATCOM supports Air Force studies investigating the benefits of replacing B-52 engines. I support an engine upgrade for the B-52, as the result will be increased range, longer combat time-on-station, smaller maintenance footprint, and less of a tanker bill. The upgrade will ensure that the B-52 remains a viable component of the bomber force in the face of advanced threats.

The B-2 fleet will receive the next generation of assured and survivable communication, VLF receivers, and survivability upgrades against modern threats to retain the platform's stealth attributes. Difficulty maintaining stealth attributes is the primary reason for downtime on B-2 aircraft. USSTRATCOM supports Air Force initiatives to fund upgrades to B-2 survivability, communications,

and maintainability – this is critical to mission effectiveness and longevity of the nation's only penetrating bomber.

As potential adversaries develop and deploy increasingly sophisticated anti-air defenses, the new B-21 will ensure we maintain an effective penetrating bomber capable of striking any target around the world. The B-21 is a key component of the Air Force Family of Systems portfolio, including ISR, electronic warfare, and long-range strike. It will provide the President with capabilities to hold targets at risk around the globe regardless of anti-access/area denial environments. Coupled with the Long Range Standoff (LRSO) cruise missile, the B-21 will deny adversaries safe havens and sanctuary.

As is the case with other Triad systems, our bombers and their associated weapons are well beyond their intended service lives, requiring attention to maintain combat readiness. Legacy gravity bombs and the Air Launched Cruise Missile (ALCM) meet current military requirements, but declining sustainability and survivability challenges require replacement systems. The B61-12 gravity bomb and LRSO must deliver on schedule to avoid any strategic or extended deterrence capability gaps.

The B61-12 Life Extension and tail-kit adaptor programs are currently on schedule to deliver on time and preclude a capability gap, as both have progressed satisfactorily in engineering, manufacturing, and development. Both programs met FY12 - 16 milestones. The first production unit is planned for March 2020. Testing to date has shown the B61-12 accuracy requirement is achievable and the weapon will function as designed against required target sets. The B61-12 is a key element of the future air-leg of the strategic Triad and is required to maintain a continuous gravity nuclear capability by arming the B-2, B-21, legacy dual capable aircraft, and the F-35A. It will ensure continued support to NATO and our other partners around the world.

The ALCM carries the W80-1 warhead and is launched solely from the B-52. Intended for Soviet-era threats, the ALCM's survivability in modern air defense environments is deteriorating. Designed in the 1970s and fielded in the early 1980s with an expected 10-year service life, the ALCM is encountering sustainability and viability issues from age related material failures, advancing adversary capabilities and diminishing manufacturing sources. Parts and materials designed for a 10-year service life are now 35 years old, and are obsolete. Three Service Life Extension Programs (SLEP) are funded, but cannot keep pace with the rate of discovery of deficiencies. Funding for SLEPs and other sustainment issues are straining Operation & Maintenance funding. Operational and surveillance testing will reduce ALCM quantities below operational needs in 2030.

The LRSO cruise missile will replace the ALCM. It will provide the President with a range of deterrent options consistent with nuclear policy objectives. It provides an effective counter to adversary capabilities and a challenge to their own defenses. The LRSO is the first missile system developed in unison with a nuclear warhead for many decades. Limiting resources or funding of either component will

disrupt its entire concept-to-capability timeline. To conclude, the LRSO and W80-4 LEP programs must remain in synch and on time to preclude a capability gap.

SPACE

Space is a warfighting domain just like the air, ground, maritime, and cyber domains. The DoD with the National Reconnaissance Office and Air Force Space Command have embarked on implementing their shared Space Enterprise Vision, which supports the National Space Policy and focuses on the concepts of operation, crew force, and systems required to prevail in a conflict that extends into space. I support this effort because we must normalize how we think of space, how we operate in it, and how we describe it to each other. It is unique for many reasons, but the concepts that govern other military operations: intelligence, maneuver, fires, protection, logistics, and C2 apply just the same.

As of November of 2016, the Joint Interagency Combined Space Operations Center (JICSpOC) entered its initial phase of operations. The JICSpOC is a center that synergizes the National Reconnaissance Office, the National Intel Community and the DoD. It is focused on achieving interagency unity of effort while defending against space threats. In coordination with our partners and to eliminate confusion, we have decided to rename the JICSpOC to better describe its actual purpose. As of 1 April 2017, the JICSpOC will be called the National Space Defense Center. (NSDC).

We have a combined space operations initiative with Australia, Canada, New Zealand, and the United Kingdom. The MOU, signed in 2013, continues in the spirit of cooperation with regular boards that make or recommend space policy decisions. A board in November 2016 directed the formation of general officer-led working groups for operations and exercises, capabilities and architectures, and policy. These working groups cross military and policy positions reside in the participant countries.

We have other multi-national space operations initiatives as well. Notably, France and Germany were included for the first time in the Schriever Wargames in 2016.

We conducted a Space Situational Awareness Table-Top Exercise in September of 2016, with partner nation participation from the UK, Canada, Australia, Japan, France and Germany. We are examining the prospect of inviting Italy and the Republic of Korea to follow-on exercises later this year. These initiatives are part of the multi-national collaborative environment we are fostering to expand international cooperation, strengthen stability in the space domain, and increase assurance and resilience.

While we continue to build partnerships, new satellite communication (SATCOM) capabilities face significant funding challenges. These fielding issues must be resolved to prepare the U.S. to fight effectively in future conflicts. SATCOM capabilities associated with the Mobile User Objective System (MUOS) Wideband Code Division Multiple Access (WCDMA) are constrained by the availability of tactical terminals and issues in bringing the MUOS Radio Access Facility gateways into operation. The

fielding of new AEHF Extended Data Rate (XDR) capabilities is improving over time, but delayed XDR terminal programs are hampering the transitions from Milstar to AEHF. Protecting wideband communications is essential to fighting effectively in the future. We must unify these separate service efforts under an interoperable standard to enable joint operations in contested environments. I support future operations leveraging the burgeoning commercial SATCOM industry

Joint force capability development notwithstanding, we have been successful in integrating the three-year Cooperative Research and Development Agreement (CRADA) initiative at the Joint Space Operations Center (JSpOC), with six commercial industry satellite systems and services owner operators. These owner operators are DigitalGlobe, Eutelsat, Intelsat, Inmarsat, Iridium, and SES-GS; and our objective is to improve the ability to deliver operational capability, lower cost, and reduce risk.

These commercial partners are not under contract. The industry provides representatives to collaborate directly on the JSpOC floor in the areas of space operations and resiliency, decision support, threat mitigation, automated tools analysis, exercise participation, space catalog, common data standards and protocols. Current law does not allow government sponsorship of security clearances, badging and accesses unless under contract, and we could use some help in this area.

USSTRATCOM is also actively engaged in DoD support to the Civil Space Traffic Management effort directed by the National Security Council, and led by the Federal Aviation Administration on behalf of the Secretary of Transportation. USSTRATCOM must continue to track all objects in space for national security purposes but we can share the data with others. We see a potential where the DoD and DoT jointly operate a mutually-supportive US space traffic management enterprise that will foster more enhanced spaceflight safety for all operators including from government, civil, and commercial sectors across the globe, but we must be careful to do so in a way that does not adversely impact our national security.

JOINT ELECTRONIC WARFARE

Our peer and near-peer adversaries have studied U.S. capabilities and our ability to dominate the electro-magnetic spectrum is at risk. Many countries have organized for spectrum warfare with specific EW/spectrum warfare units. They have built electronic attack capabilities to counter virtually all of our spectrum dependent systems. Our military once had a focus and drive in this area, but we have lost much of our expertise. We must recommit our investments in systems, personnel, and training.

The EW Executive Committee (EXCOM) is a step in the right direction to address the criticality of gaining and maintaining EMS superiority, which affects all domains. The Joint Concept for EMSO (JCEMSO), signed by the Chairman of the Joint Chiefs in March 2015 provides an initial concept vision for future electromagnetic spectrum operations. With a global perspective and UCP Joint EW mission

area responsibilities, USSTRATCOM is engaged in Joint Electromagnetic Spectrum Operations (JEMSO) advocacy across the doctrine, organization, training, materiel, leadership and education, personnel, facilities and policy on behalf of the Department.

MISSILE DEFENSE

Ballistic missile proliferation and lethality continues to increase as more countries acquire greater numbers of ballistic missiles and are increasing their technical sophistication to specifically defeat U.S. ballistic missile defense systems. In the past year, we continue to see missile tests from North Korea and Iran that cause us and our allies continued concerns. Their efforts to advance missile technologies threaten stability. In response, we must continue our efforts to advance capabilities and missile defense forces to assure allies of our commitment for a common defense and to deter further aggressions from these regional and transregional actors.

As an essential element of the U.S. commitment to strengthen strategic and regional deterrence against states of concern, we continue to deploy missile defense capabilities and strengthen our missile defense postures. During the past year, we have operationally deployed the Aegis Ashore Missile Defense Complex in Romania as part of the European Phased Adaptive Approach Phase II and added additional Ground Based Interceptors (GBIs) as we remain on track to meet the objective of 44 GBIs by end of this calendar year. Continued investments toward our warfighter missile defense priorities are essential. Priority missile defense upgrades and capability advancements include:

- Increase of reliability and lethality of our interceptors to include the continued development of the Redesigned Kill Vehicles (RKV) for the GBI, completion of testing and deployment of the SM-3 Block IIA capability, and future enhancements to the GBI, most notably the Multi-Object Kill Vehicle (MOKV).
- Sensor and discrimination capabilities to include the continued development of the Long Range Discrimination Radar (LRDR) and increasing the sensor network based on the conclusion of the Department's Sensor Analysis of Alternatives. At some point soon our nation must commit to deployment of a global space-based sensor system with discrimination capability.
- Increase the robustness of regional missile defense capability and capacity to include continued deployment of the Aegis Ballistic Missile Defense and the Terminal High-Altitude Area Defense (THAAD) capabilities and implementation of the recommendations from the Department's Joint Regional Integrated Air and Missile Defense Capability Mix (JRICM) study.

We cannot be successful in this endeavor by investing solely in active missile defense capabilities– we must strengthen all pillars of missile defense including the capability to enable a left-of-launch capability in the Missile Defeat enterprise. We are exploring efficiencies that can be gained by fusing non-kinetic, cyber, electromagnetic, and kinetic capabilities to deny, defend, and defeat adversary threats. Furthermore, additional efforts should be invested in the Department's ability to find, fix, track, target, engage, and assess (F2T2EA) threats and the adoption of corresponding policy and organizational constructs.

We must strengthen our collaboration with our allies and explore further integration of our collective capabilities toward an effective mutual defense. We are investing in collaboration with our allies across multiple venues, including the USSTRATCOM-hosted Nimble Titan wargame. This biennial wargame is conducted with our key allies in partnership with the Department of State and our Geographic Combatant Commands. We continually explore and experiment with potential collaboration and integration approaches with our allies to inform development of policy, military, and investment options.

Finally, we depend on flight-testing – it is critical to assessing and validating the performance of the operational system in actual flight environments. The high cost of flight-testing often limits the number of flight test opportunities. The Missile Defense Agency endeavors to maximize the opportunity for learning to advance capability development through flight test success or failure. The body of data collected in flight-testing is robust, and we discover unexpected findings in every test. Flight test failures are unplanned, but when failures happen – learning occurs. The root cause is determined, corrective actions are implemented, and the overall capability of the system improves.

CYBER

Cyber is still a critical mission assigned to USSTRATCOM. We continue to work closely with U.S. Cyber Command to ensure our nation is prepared to respond to any and all challenges within this domain. I applaud the direction signed into law in the FY17 National Defense Authorization Act and remain committed to the elevation of U.S. Cyber Command to be a unified command as soon as possible. They will be providing a detailed posture statement on cyber in the near future.

INITIATIVES

To ensure U.S. conventional power and deterrence are just as strong in the future as they are today, technological and operational innovation is crucial. The pace at which potential adversaries are improving their capability is a challenge. Holding adversary targets at risk will continue to be challenged as advanced offensive and defensive systems hinder our ability to effectively maneuver in anti-

access/area denial environments. One of my top priorities is anticipating change and confronting uncertainty with agility and innovation. USSTRATCOM has been a participant with Third Offset Strategic Portfolio Reviews that ultimately lead up to Investment Decisions. One example of USSTRATCOM's contribution is the Global Operations Innovation Initiative (GOII).

USSTRATCOM continues to be the lead advocate for development and deployment of Conventional Prompt Strike (CPS) weapons systems, which can influence all forms of conflict and offset adversary advantages. While there are many hypersonic activities ongoing within the Department, I support CPS as the leading technology maturation effort in the realm of hypersonics.

The challenge of holding adversary targets at risk will continue to grow as advanced offensive and defensive systems hinder our ability to maneuver in anti-access / area denial (A2AD) environments. CPS weapons will provide a responsive, long-range, non-nuclear strike capability against distant, defended, time-critical threats. Having a hypersonic strike capability enhances our overall deterrent posture by providing the President additional options to hold targets at risk that do not justify crossing the nuclear threshold.

I support ongoing Department efforts to mature hypersonic boost-glide vehicles and non-nuclear warhead technologies through ground and flight-testing, as well as modeling and simulation efforts – we foresee an operational need for a CPS capability by the mid-2020s. While the next CPS flight test, scheduled for the 4th quarter of 2017, will demonstrate operationally representative flight components, our adversaries are developing similar long-range hypersonic strike weapons.

CONCLUSION

USSTRATCOM is a global warfighting command. Today's deterrence forces remain safe, secure, reliable, and ready. Nevertheless, the U.S. faces significant challenges in sustaining the required capabilities to continue to provide strategic deterrence on behalf of our nation. Our Nation's strategic capabilities must be a core focus of our national security spending. I am sure that sustained Congressional support, combined with the hard work of the exceptional men and women who support United States Strategic Command, will ensure that we remain ready, agile, and effective in deterring strategic attack, assuring our allies and partners, and addressing both current and future threats.