SENATE COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT

STATEMENT OF ADMIRAL C. D. HANEY COMMANDER UNITED STATES STRATEGIC COMMAND BEFORE THE SENATE COMMITTEE ON APPROPRIATIONS SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT

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INTRODUCTION

Mr. Chairman and distinguished members of the committee, I am honored to be here today. Thank you for the opportunity to provide testimony on the critical need to modernize America's nuclear deterrent capabilities and especially the air-delivered nuclear deterrent forces. I am also pleased to be here with Ms. Rose Gottemoeller, Under Secretary of State, Arms Control and International Security; Ms. Madelyn Creedon, the Department of Energy's (DOE) Principal Deputy Administrator for the National Nuclear Security Administration (NNSA); and Mr. Robert Scher, Assistant Secretary of Defense for Strategy, Plans and Capabilities. I thank you all for your continued support to our Nation's defense.

Our ability to ensure global security depends upon the modernization of our aging nuclear enterprise. Recapitalization of our delivery platforms and weapons; reinvestment in our intellectual capital and infrastructure; and continued improvements to our Nuclear Command, Control, Communications (NC3) and early warning systems are vital to maintaining a safe, secure, effective and credible nuclear deterrent force. As nuclear threats continue to endure and evolve, our nuclear enterprise plays a critical role in providing strategic stability in an uncertain world.

GLOBAL SECURITY ENVIRONMENT

Today's global security environment is complex, dynamic and volatile. The dangers presented by this unpredictable security environment are compounded by the continued propagation of asymmetric methods, the unprecedented proliferation of advancing technologies, including advances in air-defense technologies, and the increasingly provocative and destabilizing behavior by potential adversaries like Russia, China, North Korea and Iran. Some nations are investing in long-term military modernization programs, including capabilities that could pose an existential threat to the United States. A number of others are developing new

capabilities, sustaining, and/or modernizing their nuclear forces, including weapons and platforms that are mobile, hardened and underground.

Russia. Russia's new security strategy makes clear that it seeks to re-assert its great power status at the cost of its neighbors and regional stability. Russia is modernizing its conventional and strategic nuclear military programs, emphasizing new strategic approaches, declaring and demonstrating its ability to escalate if required, and maintaining a significant quantity of non-strategic nuclear weapons (NSNW). Russia has engaged in destabilizing actions in Syria and Ukraine (Eastern and Crimea), continues to make overt and implied threats against our friends and allies in Europe, while also violating the Intermediate-range Nuclear Forces Treaty and other international accords and norms. Finally, Russia is rapidly developing advanced counter-space and cyber capabilities.

Despite these activities, there is continued adherence to the New Strategic Arms Reduction Treaty (New START) by both nations. One benefit of New START is that it promotes stability by maintaining essential equivalency in nuclear weapon numbers and strategic capability. It also promotes transparency via inspections and helps assure our non-nuclear allies, alleviating their need to pursue nuclear deterrent capabilities. However, to maintain strategic stability and ensure a viable and credible strategic and extended deterrence / assurance capability as we draw down to New START central limits, the systems we retain must be safe, secure, effective and credible. This is especially important given there is no arms control agreement limiting Russian NSNW. Most concerning is that these uncounted weapons are intended for regional use in conditions short of intercontinental war.

In compliance with a series of treaties, the United States has reduced its stockpile by 85 percent relative to its Cold War peak. Instead of dozens of delivery systems, we now have four

strategic delivery platforms. We seek no new military capabilities in our nuclear forces. Rather, we seek to retain and modernize only those capabilities needed to sustain a stable and effective strategic and extended deterrence / assurance capability. We are on track to achieve New START limits of 1550 deployed warheads and 700 deployed delivery systems by February 2018.

China. In addition to pursuing regional dominance in the East and South China Seas, China continues making significant military investments in nuclear and conventional capabilities. China is re-engineering its long-range ballistic missiles to carry multiple nuclear warheads and continues to develop and test hyper-glide vehicle technologies. China's pursuit of conventional prompt global strike capabilities, offensive counter-space technologies, and exploitation of computer networks raises questions about its overarching intentions. While China periodically reminds us of its "No First-Use" nuclear policy, these developments – coupled with a lack of transparency on nuclear issues such as force disposition and size – may impact regional and strategic stability and are cause for continued vigilance and concern.

North Korea (DPRK). The DPRK's behavior over the past 60 years has been very erratic, and is cause for significant concern among our allies and partners in the Asia–Pacific region, particularly Japan and South Korea, as well as the international community at large. Kim Jong-Un continues to defy international norms and resolutions, as demonstrated by a number of provocative actions this year, including the DPRK's fourth nuclear test. We also see the DPRK working to develop Intercontinental Ballistic Missile (ICBM) and Submarine Launched Ballistic Missiles capabilities, as well as an improved Intermediate Range Ballistic Missile. The DPRK's coercive, irresponsible rhetoric and actions undermine regional stability. The US nuclear modernization strategy must provide credible extended deterrence in this region to assure our allies that they need not pursue nuclear programs of their own.

Iran. Iran follows the mandates of the Joint Comprehensive Plan of Action, but it continues to develop ballistic missiles and cyberspace capabilities – and we remain focused on countering its destabilizing activities in the region.

Violent Extremist Organizations (VEOs). Ungoverned or ineffectively governed regions remain incubators for those who seek to attack the world's peaceful societies. VEOs recruit and operate freely across political, social, and cyberspace boundaries. Weapons of mass destruction (WMD) in the hands of VEOs would be catastrophic to say the least, and highlights the importance of our non-proliferation and counter-WMD efforts.

In summary, the global strategic environment is increasingly complex. Unlike the bipolar world of the Cold War, today's multi-polar world with state, non-state and mixed-status actors is an environment consisting of many players with diverging interests. This dynamic severely challenges regional security and global strategic stability. Undoubtedly, future conflicts will not be contained within prescribed borders, stove-piped domains, or segregated areas of responsibility. Rather, we must view threats as transregional, multi-domain and multi-functional, requiring a comprehensive approach to strategic deterrence, assurance and escalation control.

USSTRATCOM IN THE 21ST CENTURY

USSTRATCOM counters diverse and complex threats through the execution of its fundamental mission: to detect and deter strategic attacks against the U.S. and our allies, and to defeat those who attack if deterrence fails. USSTRATCOM is assigned nine distinct responsibilities: Strategic Deterrence; Space Operations; Cyberspace Operations; Global Strike; Joint Electronic Warfare; Missile Defense; Intelligence, Surveillance and Reconnaissance; Countering Weapons of Mass Destruction; and Analysis and Targeting.

These diverse missions are strategic in nature, global in scope, and intertwined with Joint Force capabilities, the interagency process and require a Whole-of-Government approach. Each mission supports, or is interconnected with the others, and their combined capabilities enable a comprehensive approach to strategic deterrence, assurance and escalation control in the 21st century.

Strategic deterrence is a complex subject that is foundational to our nation's security. It depends on the situation and we must master it to ensure that no adversary will gain the benefits they seek, no adversary can escalate their way out of a failed conflict, and all adversaries understand that we can and will, if necessary, respond in a time, place, and manner of our choosing.

Deterrence is a fundamentally human endeavor, firmly rooted in psychology and social behavior. At the most basic level, deterrence is achieved through one of two mechanisms. The first is an aggressor's recognition that unacceptable costs may be imposed for taking an action and recognition that foregoing this action may result in lesser costs. The second is an aggressor's belief that the contemplated action will not produce its perceived benefit, or that not acting will produce a greater perceived benefit. These elements combine to convince potential adversaries that they will not succeed in an attack, and even if they try, the costs will far outweigh the benefits. USSTRATCOM's capabilities underpin these fundamental elements of deterrence, affording the United States the ability to maintain strategic stability.

Achieving comprehensive strategic deterrence, assurance and escalation control requires flexibility and the analysis of numerous courses of action (COA) to determine the best option or combination of options to address a given situation. These COAs include nuclear weapons systems along with a robust intelligence apparatus; highly diverse conventional and asymmetric

capabilities, including space, cyberspace, kinetic weapons, and missile defenses; global command, control, and communications; and comprehensive plans that link organizations and knit their capabilities together in a coherent way. However, as we look to the future, continued strategic stability is dependent on ensuring our nuclear force modernization plan of record is executed without delay.

Priorities. USSTRATCOM is guided by my six overarching priorities:

1. Deterring strategic attack against the United States and providing assurance to our allies. Strategic attacks can occur through a variety of means in any domain. They may impact many people or systems, affect large physical areas, act across great distances, persist over long periods of time, disrupt economic or social structures, or change the status quo in a fundamental way.

2. Providing the Nation with a safe, secure, effective and ready nuclear deterrent

force. Foundational documents such as the 2010 Nuclear Posture Review, the 2013 Report on Nuclear Weapons Employment Strategy, the 2014 Quadrennial Defense Review (QDR), and the 2015 National Military Strategy have consistently repeated this mandate. I am committed to providing our Nation with a viable and credible nuclear deterrent force.

3. Delivering comprehensive warfighting solutions. To effectively deter, assure, and control escalation in today's security environment, threats must be surveyed across the "spectrum of conflict." Escalation may occur at any point, in varying degrees of intensity, with more than one adversary, in multiple domains, to include "below threshold activities" that would not ordinarily prompt international action. Our actions and capabilities must convince any adversary that they cannot escalate their way out of a failed conventional conflict, and that restraint is always the better option. Doing so requires a deeper, broader understanding of our

potential adversaries, so that we can deny action; hold critical nodes at risk; and prevent activities, perceptions and misperceptions from escalating. We must also look at our military capabilities in a holistic manner, and fully integrate them within our other elements of national power. We must pursue a Whole-of-Government approach to deterrence, including allies and partners in our efforts, with ready forces in all domains.

4. Addressing challenges in space and cyberspace with capability, capacity and resilience. These capabilities are critical to all USSTRATCOM missions, including the strategic deterrent mission.

5. Building, sustaining and supporting partnerships. We aim to work seamlessly with the other Combatant Commands, across the federal government, commercial sector, academia and with partners and allies to apply the scope of the USSTRATCOM portfolio toward a synchronized pursuit of national objectives.

6. Anticipating change and confronting uncertainty with agility and innovation. Sound decision-making requires thorough analysis to prioritize our activities with flexible, agile and adaptable thinking. This effort includes a variety of wargames, demonstrations and exercises to evaluate deterrence and escalation control options.

MISSION AREA CAPABILITIES & REQUIREMENTS

We must maintain a military capability that provides our leadership with the decision space to respond in the best interest of the United States. This includes the ability to mitigate current and future risk as it pertains to nuclear threats. Therefore, prioritizing resources to meet our requirements necessitates a thoughtful assessment of national priorities in the context of fiscal realities. The President's Budget supports my mission requirements, but there is no margin

to absorb risk. Any cuts to the budget will hamper our ability to sustain and modernize our military forces, and will add significant risk to our strategic capabilities.

Nuclear Deterrent Forces

Although the United States possesses conventional weapons and forces that are second to none, we must retain a safe, secure, effective and ready nuclear deterrent force to maintain strategic stability and provide extended deterrence and assurance. Our nation's nuclear capabilities have served the country well for over 70 years. At points throughout this period, tensions have ebbed and flowed in our interactions with adversaries and potential adversaries. One constant during this time has been our nuclear deterrent. The United States deterred strategic attack against our nation and allies and avoided great power war against nuclear-capable adversaries. This capacity to prevent catastrophic conflict has been unprecedented throughout modern history, and highlights the stabilizing influence of America's nuclear arsenal. However, our ability to continue to provide strategic stability depends upon the modernization of our nuclear enterprise. Sustainment alone will not meet future adversarial threats. We simply must modernize.

Nuclear Triad. Our nuclear Triad is a requirement. Each leg of the Triad provides unique capabilities and hedges the other legs of the Triad against uncertainty. Combined, they provide a robust deterrent capability in an ever-changing security environment. The policy of maintaining a Triad of strategic nuclear delivery systems was most recently re-iterated in the 2014 QDR. Our ICBMs, Ballistic Missile Submarines (SSBNs), nuclear-capable heavy bombers armed with nuclear Air-Launched Cruise Missiles (ALCM) and gravity bombs, and associated tankers each provide unique and complementary attributes that together underpin strategic stability and extended deterrence /assurance—and each element is in urgent need of continued

investment. Our ICBMs, strategic bombers, and SSBNs were fielded between 1960 and 1980. The extended service of our nuclear delivery platforms is testament to the efforts and ingenuity of our predecessors, as well as our design engineers, maintainers, and industry partners. But these aging capabilities are fast approaching the point at which the effectiveness of our nuclear deterrent will be put at risk. This is critical in a global security environment where other nuclear-capable nations are clearly placing a high priority on developing, sustaining, and modernizing – and in some cases expanding – their nuclear forces. The United States, however, is retaining and modernizing only those systems needed to sustain an effective deterrent.

The Triad provides flexible and tailorable strike options that allow the President alternatives to hold assets an adversary values at risk, while simultaneously hedging against technical problems or changes in the security environment. To do this, the Triad must consist of independently viable weapons systems and platforms which present adversaries with a complex, multi-faceted problem. Additionally, the United States commitment to extended deterrence and assurance of allies is essential to realizing long term nuclear non-proliferation goals.

Air-delivered nuclear weapons offer unique strategic deterrence value in that they are readily capable of providing both strategic and extended deterrence. The B-21 bomber (formerly known as the Long Range Strike-Bomber), Long Range Stand-Off (LRSO) Cruise Missile, and B61-12 gravity bomb are all needed to provide flexibility in strategic deterrence and provide the President tailorable options should deterrence fail. The B61-12 also arms US and allied dual capable aircraft (DCA) in support of NATO commitments.

Bombers. Our B-52 and B-2 bombers are the most flexible and adaptable leg of the nuclear Triad and also provide significant conventional capabilities. Bombers play a key role in stabilizing and managing crises by providing a visible signaling option and rapid hedge against

operational and technical challenges in other legs of the Triad. Ongoing and planned sustainment and modernization activities, to include associated NC3 upgrades, will ensure our bombers provide credible deterrent capabilities until their planned end-of-service-life. I fully support the Air Force program for fielding a new, highly survivable penetrating conventional and nuclear B-21 Bomber. When coupled with a new LRSO cruise missile and the B61-12 gravity bomb, the B-21 will provide the President with flexible options to address a range of contingencies in highly contested and non-permissive, anti-access / area denial environments. Maintaining an air-delivered standoff and direct attack capability is vital to meeting our strategic and extended deterrence commitments and denying geographic sanctuaries to potential adversaries. The LRSO is needed to replace the aging ALCM, which has far exceeded its originally planned service life and is being sustained through a series of service life extension programs. Likewise, the B61-12 is needed to extend the life of aging nuclear gravity weapons and provide continued viability for both the B-2 strategic bomber and DCA supporting our NATO and extended deterrence commitments. The B-21 will be capable of employing both the B61-12 and the LRSO.

While some contend there is no need for both the LRSO and a stealth bomber, I am convinced that both systems are absolutely necessary to provide strategic deterrence and stability. The B21 bomber, the LRSO cruise missile, and the B61-12 gravity bomb – in combination – significantly complicate a potential aggressor's planning and strategic investment. Overcoming such a highly complex strategic problem imposes excessively high costs on any potential aggressor. No conventional weapon or combination of conventional weapons can attain a comparable deterrent effect or maintain strategic stability as well as the combined attributes of the B21, LRSO and B61-12 against a nuclear armed adversary.

Weapons and Infrastructure. Today's stockpile remains safe, secure, effective and credible and meets operational requirements. However, our nuclear weapons (now averaging 27 years of service) and supporting infrastructure (some dating back to the Manhattan Project) are in dire need of modernization and life extension. Our stockpile is the oldest it has ever been. Surveillance activities, Life Extension Programs (LEPs), and Stockpile Stewardship efforts are essential to mitigate age-related effects and incorporate improved safety and security features without a return to underground nuclear explosive testing. Continued talent pool investment with our nuclear scientists and engineers is also paramount to provide viability to our stockpile requirements.

As a member of the Nuclear Weapons Council (NWC), I work closely with my DOD and NNSA counterparts to ensure we maintain a safe, secure, and effective nuclear stockpile. Active and sustained execution of the NWC's long-term "3+2" strategy to deliver three ballistic missile warheads and two air-delivered weapons (B61-12 and LRSO) is crucial to address near-term technical needs and future capability requirements. W76-1 and B61-12 LEPs are on track and are necessary to maintain confidence in the reliability, safety and intrinsic security of our nuclear weapons. The LRSO will not field a new nuclear warhead. Rather, the W80-4 warhead will reuse the W80-1 warhead design fielded on the current ALCM, supplemented with additional surety features. Early activities are underway to synchronize the LRSO cruise missile program with the W80-4 warhead LEP to ensure these programs are fielded in time to maintain a viable stand-off nuclear capability. The President's Budget ensures schedule alignment of the cruise missile and its associated warhead. The contract for the B-21 bomber was awarded to Northrup Grumman in October 2015.

Budget. Sustaining and modernizing the nuclear enterprise infrastructure is crucial to maintain a viable nuclear deterrent force. It is impressive to see today's systems working well beyond their expected service life, but we cannot rely on this indefinitely. Aging weapon systems and supporting infrastructure are stressing our ability to maintain a viable and credible force.

I share concerns about the cost of modernization, but the greater worry is the cost of not making needed investments. There must be a sustained, multi-decade investment program in our weapons, delivery systems and supporting infrastructure. Referencing Congressional Budget Office studies, while current sustainment cost of our strategic deterrent capability is 3 percent of defense appropriations, the expected cost of nuclear forces during modernization, including sustainment and operation of force as well as recapitalization, will represent approximately 5 percent to 7 percent of the total costs of the planned defense budgets for the next ten years. The importance of the foundational nuclear deterrent force to national security, assurance to our allies, our non-proliferation objectives and strategic stability far outweigh the expense of recapitalization. Failing to provide the resources requested in the FY 2017 budget would delay the development of these programs and unacceptably degrade our credibility and ability to deter and assure. Our Nation must make this investment.

CONCLUSION

Strategic deterrence is foundational to current and future strategic stability and our nation's security. We must maintain the ability to ensure that potential aggressors always see restraint as the better option, that they will not gain the benefits they seek, that they cannot escalate their way out of a failed conflict, and that we can and will, if necessary, respond appropriately to any manner of attack against the United States and our allies.

Achieving strategic deterrence, assurance and escalation control will require a multifaceted, long-term approach to modernizing strategic capabilities and a renewed commitment to sustaining intellectual capital. Investment in our Nation's strategic capabilities is sorely needed and must not be delayed.

The importance of these capabilities to strategic stability are essential when considering nations like Russia, China, and the DPRK continue to develop, field and maintain strategic-range nuclear capabilities. Sustainment alone will not meet future adversarial threats. Modernization is not only necessary to maintain capabilities for today's threats; it is necessary to ensure we have the flexibility and options to address future uncertainty.

In today's uncertain times, your continued support, combined with the hard work of the exceptional men and women of United States Strategic Command, will ensure that we remain ready, agile and effective in deterring strategic attack, assuring our Allies and partners, and addressing current and future threats.