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THE HOUSE ARMED SERVICES COMMITTEE
STRATEGIC FORCES SUBCOMMITTEE

STATEMENT OF

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BEFORE THE

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SUBCOMMITTEE ON STRATEGIC FORCES

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Mr. Chairman, Mr. Turner, and members of the subcommittee, thank you for the opportunity to testify regarding key strategic issues for the Department of Defense. It is a pleasure to join the Commander of U.S. Strategic Command, General Chilton, in discussing DoD policies and posture relating to nuclear weapons, missile defense, combating weapons of mass destruction (WMD), space, and cyberspace. The Department of Defense shares the Committee's view that these are critical and interconnected issues. In fact, as you know, last year we established a new office for Global Strategic Affairs in the Office of the Secretary of Defense for Policy to better focus the Department's efforts in these areas.

It would be difficult to overstate the importance to the nation of these strategic issues, which have been the focus of intensive study in DoD over the last year.

- In February, Congress received the report of the first-ever Ballistic Missile Defense Review (BMDR), as well as the Quadrennial Defense Review report, which emphasizes the importance of combating WMD and improving our capabilities in cyberspace.
- DoD and the Office of the Director of National Intelligence recently submitted an interim report on the Space Posture Review, and we continue to work together on a National Security Space Strategy that we intend to submit to Congress this summer.
- Working closely with the Departments of State and Energy, as well as others, we are nearing completion of the Nuclear Posture Review (NPR).

We recognize the importance of working closely with Congress on all of these issues, and are pleased to continue that process today.

U.S. Nuclear Policy and Posture

Today's nuclear security environment has changed dramatically since the end of the Cold War. While the threat of nuclear war has become increasingly remote, the dangers posed by nuclear weapons and materials have increased. As the President made clear in his Prague speech in April 2009, today's most immediate and extreme threats are nuclear terrorism and the proliferation of nuclear weapons. At the same time, we need to sustain strategic stability with Russia, even as we work to reduce both nations' strategic nuclear weapons.

The Administration is nearing completion of the 2010 Nuclear Posture Review, and will present the final report to Congress in the coming weeks. The NPR report will be a foundational document for this Administration, a practical work plan for accomplishing the objectives set out by the President in his April 2009 Prague speech. It will provide concrete steps to reduce the role and numbers of nuclear weapons with the ultimate goal of a world free of nuclear weapons, while sustaining, as long as nuclear weapons exist, a safe, secure, and effective nuclear arsenal. A key aim of the NPR is to strengthen deterrence, as well as assurance of allies and partners, and the report will outline a number of specific steps to do so.

As mandated by Congress, the NPR report will address U.S. arms control objectives, including in the ongoing New START negotiations. Detailed NPR analysis helped define U.S. negotiating positions, including on the central limits of the Treaty on strategic warheads and delivery vehicles. U.S. and Russian negotiators are now meeting in Geneva to complete an agreement that will reduce operationally deployed strategic nuclear weapons to their lowest levels in decades. This Treaty will enhance U.S. and Russian security by reinforcing stability at lower numbers of nuclear weapons, and increasing predictability through provisions to ensure effective verification.

One of the early conclusions of the NPR was that the United States should retain a nuclear Triad under a New START, comprised of intercontinental ballistic missiles (ICBMs), submarine launched ballistic missiles (SLBMs), and nuclear-capable heavy bombers. The FY 2011 budget submitted to Congress reflects this conclusion.

- *ICBMs*. The Department will continue the Minuteman III life extension program to sustain the fleet to 2030, as directed by Congress.

- *Strategic Submarines (SSBNs).* The current fleet of Ohio-class submarines will begin to retire in the 2027 timeframe. In order to maintain an at-sea presence for the long-term, the United States must begin development now of a follow-on strategic submarine. To begin the process, the Navy will take the necessary steps to begin technology development.

- *Heavy Bombers*. The Department proposes to invest over $1 billion over the next five years to support upgrades to the B-2 stealth bomber. These enhancements will help

sustain survivability, and improve target defeat capabilities when the bombers are used in a conventional role. As a follow-on to the QDR, the DoD is now studying the appropriate long-term mix of non-nuclear long-range strike capabilities, including penetrating and standoff bombers, cruise missiles, and conventionally-armed ballistic missiles. Results from this in-depth study will support FY 2012 budget decisions.

The NPR has also reached conclusions regarding necessary investments to sustain our nuclear stockpile and modernize our nuclear infrastructure. As a result, the Administration proposed a 13 percent increase in FY 2011 in the National Nuclear Security Administration budget. A portion of this funding supports the W76 and B61 Life Extension Programs (LEPs) and allows for a follow-on LEP study to identify the path forward for the W78 warhead. The NPR will establish the guidelines for this and future LEP work.

Additionally, the NPR determined that investments in infrastructure are needed, including:

- Funding the Chemistry and Metallurgy Research Replacement nuclear Facility at Los Alamos National Laboratory, as the replacement for the existing, 50-year old CMR plutonium materials facility;

- Building a new Uranium Processing Facility at the Y-12 Plant in Oak Ridge, Tennessee; and

- Strengthening the science, technology, and engineering base as a prerequisite for conducting weapon systems LEPs, certifying weapons without nuclear testing, and providing annual stockpile assessments as well as supporting efforts to counter nuclear terrorism.

These investments are not only consistent with our nonproliferation and arms control agenda; they are essential to it. Guaranteeing the safety, security, and effectiveness of our stockpile, coupled with broader research and development efforts, will allow us to pursue nuclear reductions without compromising our security.

The NPR report will outline additional steps to reduce the role and numbers of nuclear weapons, while strengthening deterrence and sustaining a safe, secure, and effective nuclear arsenal. As

the NPR nears completion, the Administration will welcome the opportunity to consult further with members of this subcommittee and the Congress.

Missile Defense

Ballistic missile threats from regional actors are growing both quantitatively and qualitatively, a trend we expect to continue over the next decade. The ballistic missiles systems of potential adversaries are becoming more flexible, survivable, and accurate, while attaining greater ranges. For example, North Korea continues to develop the ICBM-class Taepo Dong II, while Iran is developing a Space Launch Vehicle (SLV) capability that could provide the basis for a future ICBM capability.

As directed by the President and Congress, the Department of Defense recently completed the first ever Ballistic Missile Defense Review (BMDR). This review comprehensively evaluated our ballistic missile defense policies, strategies, plans, and programs. Released in February, the BMDR report outlines a strategy and policy framework that focuses on balancing investments to develop and field near-term regional missile defense capabilities, while also funding developmental efforts to hedge against future uncertainties.

The BMDR identified six major priorities that will shape our missile defense approach:

1. The United States will continue to defend the homeland against the threat of limited ballistic missile attack.

2. The United States will defend against regional missile threats to U.S. forces, while protecting allies and partners and enabling them to defend themselves.

3. Before new capabilities are deployed, they must undergo testing that enables assessment under realistic operational conditions.

4. The commitment to new capabilities must be fiscally sustainable over the long term.

5. U.S. BMD capabilities must be flexible enough to adapt as threats change.

6. The United States will seek to lead expanded international efforts for missile defense.

Defending the Homeland

With currently deployed capabilities, the United States can defend the homeland against a limited ballistic missile attack by states such as North Korea or Iran should that threat emerge. By the end of FY 2010, the United States will deploy a total of thirty Ground Based Interceptors (GBIs) at Ft. Greely, Alaska, and Vandenberg Air Force Base, California. Today, only Russia and China have the capability to conduct a large-scale ballistic missile attack on the United States, but this is very unlikely and not the focus of U.S. ballistic missile defenses.

DoD is committed to deploying effective missile defenses, including for the Ground-based Midcourse Defense (GMD) system to defend against a limited ballistic missile attack on the United States. The Department will continue to develop, test, field, and improve the system, including the purchase of ground-based interceptors, construction and maintenance of missile fields and silos in Alaska and California, improvements to equipment already fielded, and a rigorous test program to ensure the GMD system provides an effective and reliable capability to protect the nation.

The Administration is pursuing a range of activities that will strengthen both regional defenses and our homeland defense capabilities. For example, efforts to strengthen our land-, sea-, air-, and space-based sensor networks in regions around the globe can provide valuable detection and tracking information that the GMD system can use to engage threat missiles. And investments in command and control upgrades can improve both regional defenses and homeland defense.

DoD is also hedging against the possible growth of the long-range ballistic missile threat. Efforts in this area include: completing Missile Field 2 at Ft. Greely Alaska, which will provide silos for up to eight additional interceptors; strengthening existing capabilities in Alaska and California; developing and testing a two-stage GBI; pursuing multiple paths to develop and deploy new sensors; and continuing to research directed energy systems for a ballistic missile defense role.

Defending Against Regional Threats

The United States has made significant progress in developing and fielding short- and medium-range missile defense capabilities, but there is more work to do. The Administration will pursue

a phased, adaptive approach to missile defense within key regions, an approach that is tailored to the threats and circumstances unique to each region. In so doing, we will work with allies and partners to strengthen regional deterrence architectures, building on the foundation of strong cooperative relationships.

As you know, on September 17, 2009, the President announced that on the advice of the Secretary of Defense and the Joint Chiefs of Staff, the Administration would pursue a phased, adaptive approach (PAA) to U.S. missile defenses in Europe. U.S. capabilities will be complementary to NATO missile defense efforts. Indeed, our goal is for PAA to contribute to a NATO territorial missile defense initiative. This approach will have four phases, with the first established in 2011, and increasing capabilities in each subsequent phase.

We have had robust cooperation with our European Allies for the PAA. The Czech Republic continues its strong support for missile defenses and we appreciate their interest in being involved with the PAA. Further, Poland committed last year to host a land-based site for the Standard Missile-3, or Aegis Ashore, to be deployed in 2018. And most recently, Romania committed to host an Aegis Ashore site, starting in 2015.

The flexibility of the phased adaptive approach will allow new capabilities to be deployed as technologies and threats mature. Looking beyond Europe, we will strengthen regional deterrence architectures by pursuing a phased adaptive approach that can be tailored to the scale, scope, and pace of the circumstances unique to any given region.

Broadly, our goal is to create an environment in which the development, acquisition, deployment, and use of ballistic missiles by regional adversaries can be deterred – and if necessary defeated. Strengthening international cooperation with allies and partners in Europe, East Asia, and the Middle East is critical to achieving that goal.

The United States is working with NATO allies to develop Active Layer Theater Ballistic Missile Defense (ALTBMD), a command and control system for regional BMD systems deployed in a NATO context. If NATO approves, ALTBMD will be enhanced to perform a territorial BMD role in Europe, and the PAA in Europe will be the U.S. contribution to a NATO BMD system to protect Alliance populations and territories, as well as U.S. forces, in accordance with Article 5 of the Washington Treaty.

The United States is also working closely with our allies and partners in East Asia. With Japan, for example, we have made considerable strides in BMD cooperation and interoperability. We are also consulting with other allies in the region, such as Australia and South Korea, to identify possible avenues of cooperation in BMD.

Similarly, we are working with countries in the Middle East to evaluate and meet their missile defense requirements. Some countries, including Kuwait and Saudi Arabia, have PATRIOT systems, while the United Arab Emirates is interested in acquiring PATRIOT and THAAD systems. We also actively cooperate with Israel on the Arrow and David's Sling programs in pursuit of operational cooperation to address regional threats.

The DoD is emphasizing capabilities that are flexible, mobile, and transportable, and that can be adapted to perform new or multi-mission assignments. Aegis BMD ships are one example. Aegis is a multi-mission platform that anchors the Navy's surface combatant fleet. Deployed globally, Aegis currently carries SM-3 missile defense interceptors. Our plans call for improving this interceptor in subsequent blocks to enable it to engage ballistic missiles of increasing range. The DoD is also looking to improve THAAD and PATRIOT systems.

In addition to developing flexible new technologies, the Missile Defense Agency is also working on new ways to adapt current technologies to perform new missions. An example is the Airborne Infrared program, which will mate an infrared sensor with the Air Force's latest unmanned aerial vehicle, the Reaper.

Ensuring Rigorous Testing

A priority for this Administration is ensuring realistic and rigorous missile defense testing prior to deployment. DoD plans a testing program to execute 125 tests from FY 2010 to FY 2015, including 15 salvo or multi-intercept missions. These will demonstrate our systems' capabilities against a wide-range of potential real-world scenarios.

We are committed to continuously improving and testing our missile defense capabilities. We intend to improve our models and simulations, expand our flight and ground test programs to test our capabilities against all ranges of ballistic missile threats, test against more complex threat

scenarios, and orient the baseline test program to quickly and efficiently collect the data required to accredit our models and simulations.

Countering the Threat of Weapons of Mass Destruction

I would like to turn now to another top strategic priority for this Administration and for DoD: preventing and countering the proliferation of nuclear, chemical, and biological weapons. An attack using these weapons would have global ramifications, and would threaten our ability to defend U.S. and allied interests and protect our citizens.

While the threat of strategic nuclear war has become remote, the threat of an attack using weapons of mass destruction is of grave and growing concern. For instance, instability resulting from the collapse of a WMD-armed state could lead to rapid proliferation of WMD material, weapons, or technology, and quickly become a global crisis. A nuclear-armed terrorist organization would similarly pose a threat both to the U.S. homeland and to the homelands of our allies and partner nations. Biological or chemical attacks could cause widespread casualties and economic mayhem worldwide.

The 2010 Quadrennial Defense Review (QDR) identified preventing proliferation and countering WMD as one of 6 priority missions for DoD. The QDR highlighted the need to expand capabilities to counter WMD; contain WMD threats emanating from fragile states and ungoverned spaces; and develop an integrated, layered defense network in multiple geographic environments.

The President's April 2009 Prague speech highlighted the importance of reducing nuclear dangers through preventing nuclear proliferation and nuclear terrorism. To that end, DoD is working closely with the Departments of Energy and State to ensure that vulnerable nuclear material is secured worldwide. We are also working with the interagency to strengthen international non-proliferation efforts including strengthening the International Atomic Energy Agency, impeding sensitive nuclear trade, and promoting the peaceful uses of nuclear energy. Further the Administration is committed to a successful NPT Review Conference, the conclusion of a verifiable Fissile Material Cutoff Treaty, the ratification and entry into force of the Comprehensive Test Ban Treaty, and efforts to ensure that the Proliferation Security Initiative and the Global Initiative to Counter Nuclear Threats will be durable and effective.

Additional initiatives include the establishment of a standing Joint Task Force-Elimination Headquarters; strengthening countermeasures and defenses for non-traditional chemical agents; enhancing nuclear forensics; expanding the biological threat reduction program; and developing new verification technologies to support arms control agreements.

Space and U.S. National Security Requirements

Space capabilities are key to prevailing in today's conflicts. In Afghanistan, commanders receive actionable intelligence in minutes, rather than hours, as a result of significant investments in space-based intelligence, surveillance and reconnaissance. In a few short years, space capabilities have gone from unique "one-off" systems, to "nice to have" in the fight, to "got to have it."

More broadly, our national security space systems enable global awareness and connectivity. Satellites provide national decision makers and military forces with asymmetric advantages including tactical and strategic missile warning, critical precision navigation and timing, tactical intelligence, targeting data, weather information, worldwide secure communications, and command and control of conventional and nuclear forces. Last year, the U.S. conducted 65 space launch missions from nine ranges, supporting both national and commercial requirements.

As discussed in the interim report of the Space Posture Review, the space environment is increasingly congested, competitive, and contested.

Space is *congested*: There are over 21,000 objects in the current space catalog and over 1100 active systems on orbit. Our own space ventures have created some space debris, and as more countries enter the space domain with on-orbit assets, increasing space debris could jeopardize the long-term sustainability of key orbital "belts." The 2007 Chinese ASAT test alone created over 2000 pieces of trackable space debris. In February 2009, Iridium 33 (a commercial satellite) and COSMOS 2251 (an operable Russian communications satellite) collided in Low-Earth Orbit (LEO). This collision created another 500 pieces of debris in low earth orbit. The U.S. Space Shuttle has had to maneuver to avoid this dangerous debris, and national security systems have expended valuable fuel to avoid collisions.

Space is also increasingly *competitive*. Today, more than 60 nations or commercial entities have satellites in space. Nations and consortia in Europe have emerged as leading global players in the development of space technologies and applications that support civil, commercial, intelligence, and military use—indeed, many of these entities place a premium on dual-use space capabilities. Among them, Russia has maintained the largest infrastructure to support space operations. Many foreign countries which have more lenient export controls than the United States are increasing their presence in the international market with satellites, sub-components, and launch activities. As a space technology leader, the United States must balance carefully national security oversight of its space-related exports with the long-term health of our domestic space industrial base.

Finally, space is *contested.* China is far from the only actor seeking to develop the capability to deny or interfere with the space capabilities of others. As recently as last month, Iran was jamming commercial satellites to censor television news to their public, and other actors have made similar efforts. In 2003, Iran jammed broadcasts of the Telestar-12 commercial satellite, and Iraq jammed GPS signals during Operation IRAQI FREEDOM. Libya reportedly jammed Telestar-12 in 2005. U.S. and allied space assets today are threatened by both reversible and non-reversible capabilities and by both kinetic and non-kinetic effects, from spectrum jamming to hard kill of satellites.

In an increasingly congested and contested space domain, the Department of Defense must be prepared to operate under sub-optimal conditions, while endeavoring to prevent and deter conflict in space, and defend our space assets when necessary. Part of this is the ability to maintain real-time situational awareness of space events that could influence our capabilities. This is not solely a U.S. interest. Far from it. We are committed to maintaining a viable environment for space operations for all nations, even as we protect U.S. and allied interests in space and deter aggression in space.

To that end, the President has directed the Secretary of Defense provide Space Situational Awareness (SSA) for the U.S. government and, as appropriate, to commercial and foreign entities. The 2010 National Defense Authorization Act provided permanent statutory authority for the Secretary of Defense to provide SSA services to – and accept SSA data and information

from – commercial and foreign entities. The Secretary has directed USSTRATCOM to perform those responsibilities, and General Chilton took on that mission in December 2009.

The Department continues to invest in the SSA architecture to prepare for the continuing increase in international spaceflight, and to ensure that the benefits of space operations continue into the future. Strong U.S. leadership is required to enable safe spaceflight operations – and this leadership, in turn, is essential to fostering the adoption and implementation of international "best practice guidelines" for responsible behavior and use of the space domain.

The Administration is currently reviewing U.S. National Space Policy. The resulting presidential directive will seek to synchronize the broad U.S. equities in space, spanning national security, science and, commerce. Building from this new Presidential directive, the Defense Department and the Office of the Director of National Intelligence (ODNI) will develop a National Security Space Strategy. This effort will help us better align the ends, ways, and means to succeed in a congested, competitive, and contested space environment.

Recently, the Department and ODNI jointly submitted an interim Space Posture Review to Congress. The final version of this review, anchored around a new National Security Space Strategy, will inform other space-related Congressionally-directed reports, such as our review of space export controls and our 15-year investment strategy. When these and other space-related reviews are completed later this year, we expect to have a comprehensive approach to this critical and dynamic environment, from policy to investment, which will position the national security space sector for future success.

Cyberspace

It is impossible to overstate the DoD's dependence on cyberspace. DoD's information networks provide command and control of our forces, the intelligence and logistics on which they depend, and the weapons technologies we develop and field. In the 21st century, modern armed forces simply cannot conduct high-tempo, effective operations without resilient, reliable information and communication networks and assured access to cyberspace.

To frame what is at stake for DoD, the Department currently operates 15,000 different computer networks across 4,000 military installations around the world. On any given day, there are up to

7 million DoD computers and telecommunications tools in use in 88 countries, using thousands of warfighting and support applications. This makes DoD networks a tempting target in an environment in which foreign governments are developing cyber capabilities to gather intelligence and potentially position themselves to disrupt elements of the U.S. information infrastructure.

USCYBERCOM, as a sub-unified command to USSTRATCOM, will consolidate the day-to-day responsibility for operating and defending DoD's information networks. USCYBERCOM will focus the Department's cyber efforts and allow it to counter cyber threats with a unified effort. USCYBERCOM will have support from the recent stand-up of Service components including the 24th Air Force, the Navy's 10th Fleet, the Marine Forces Cyber Command, and the Army Forces Cyber Command. USCYBERCOM will also ensure that the DoD's full resources, skills, and capabilities are leveraged to ensure the full spectrum of cyber operations for its combatant commanders.

To ensure the long-term ability to protect our networks, we are training cyber experts and equipping them with the latest technologies to protect and defend our information networks and operate in this new war-fighting domain. DoD views development of a cadre of cyber experts as essential to the future effectiveness of US cyber capabilities. To that end, we are seeking to ensure the availability of a workforce of highly skilled cyber security specialists in government, and are currently evaluating the best way to proceed. This group will undoubtedly consist of civilians, personnel from the Armed Services, and contractors. Achieving robust capabilities will require long term planning to ensure that a pipeline of cyber security talent is created from which both the Department of Defense and the nation can benefit.

Effectiveness in the cyber domain will require changes in the way the Department does business. The standard acquisition process is not nimble enough to support or respond to the rapid pace of technological change in the private sector. We must continue to work with industry, the national labs, and DoD's cyber ranges to quickly incorporate technological advances into DoD's operations.

Securing our military networks requires a whole-of-a-government approach. We need to build robust relationships with interagency, industry, and international partners. DoD is working closely with the President's Cybersecurity Coordinator, and with our interagency partners as we develop a way forward on cyber issues. DoD is also collaborating with the private sector, through two main channels: the Enduring Security Framework and the Defense Industrial Base. The Enduring Security Framework is a public-private partnership between the Director for National Intelligence, DoD, the Department of Homeland Security, and the private sector; its goal is to provide a permanent forum for USG-industry dialogue. The Defense Industrial Base offers another platform for public-private partnerships; it is a critical infrastructure partnership council established by DoD to facilitate coordination between USG critical infrastructure programs and private sector owners and operators.

All nations have an interest in a secure cyberspace. The DoD is conducting bilateral conversations with allies to share cyber threat and attack information, and more broadly engaging allies and partners to establish better cooperative multilateral mechanisms for countering cyber threats and thwarting attacks.

Conclusion

The challenges related to the U.S. nuclear posture, missile defenses, counter-WMD efforts, access to space, and cybersecurity are among the most pressing and difficult the Department of Defense is addressing today. In all of these areas, DoD is committed to continuing to strengthen the strategic posture of the United States with improved capabilities, and appropriate interagency, international, and private sector partnerships.