RECORD VERSION

STATEMENT BY

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INTEGRATED MISSILE DEFENSE

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Introduction

Chairman Nelson, Ranking Member Sessions, and Members of the Committee, thank you for your ongoing support of our military and for the opportunity to appear before this panel. In my view, this Committee is a strong ally of the Army and the missile defense community, particularly in our continuing efforts to field missile defense forces for the Nation and our allies. I consider it a privilege to be counted in the ranks with my fellow witnesses as an advocate for a strong global missile defense capability.

My current responsibility entails two roles. The first is as the Army's senior commander for space and missile defense. The second role is as a Soldier on the Joint Missile Defense Team and Commander of the Joint Functional Component Command for Integrated Missile Defense, a part of the US Strategic Command. In this role, I serve as the Joint user representative working closely with the Missile Defense Agency (MDA), other services, and Combatant Commanders to ensure that our national goals of developing, testing, and deploying an integrated missile defense system are met in an operationally sound configuration.

Chairman, as proven during last year's July 4th North Korean missile launches, Army Soldiers are trained and ready to operate the Ground-Based Midcourse Defense (GMD) Element of the Ballistic Missile Defense System (BMDS) at Fort Greely, Alaska, and the Joint National Integration Center at Schriever Air Force Base in Colorado. These

Soldiers, as part of the Joint team, continue to serve as our Nation's first line of defense against a rogue nation's launch of an intercontinental ballistic missile toward our shores. I am proud to represent them along with the other members of the Army and Joint integrated missile defense community.

United States Strategic Command JFCC-IMD

The Joint Functional Component Command for Integrated Missile Defense (JFCC-IMD) was established in January 2005 as one element of the US Strategic Command (USSTRATCOM) and reached full operational capability early in 2006. The JFCC-IMD is manned by Army, Navy, Air Force, Marine Corps, and civilian personnel. This joint-manning arrangement and our strong partnership with our collocated MDA team enable us to execute the integrated missile defense mission by leveraging the existing robust infrastructure.

USSTRATCOM, through the JFCC-IMD, continues to aggressively execute its mission to globally plan, integrate, and coordinate missile defense operations. Through stressing operational scenarios, integrated missile defense has experienced robust growth and maturity and has improved its ability to defend this nation. Although, there is much work yet to be done, JFCC-IMD continues to lead the Department's transformation toward more robust integrated missile defense capabilities. The Soldiers, sailors, airmen, Marines, and civilians of this Joint warfighting organization execute our mission to plan, integrate, and coordinate global missile defense operations and support by operationalizing new capabilities from MDA, developing global missile defense plans in collaboration with the Geographical Combatant Commanders, and conducting cross-geographical combatant commander exercises to eliminate seams and

gaps to maintain a strong defense against changing threats. Execution of the essential mission includes providing warning of missile attack to other Combatant Commanders and providing assessment of missile attack. In all, JFCC-IMD continues to build operational competence of the integrated missile defense capability and warfighter confidence in executing our mission.

Ballistic Missile Defense System Progress

This past year has been a year of operational achievement for integrated missile defense as we successfully placed the Ballistic Missile Defense System (BMDS) on alert in response to a credible ballistic missile threat from North Korea. This limited defense capability marked the beginning of global missile defense as warfighters from three combatant commands and allies integrated respective assets and personnel toward a single mission against a common threat. The scale of this integration is unprecedented – non-missile defense assets were integrated with legacy and state-of-the-art technologies to provide a shield to protect our homeland. Additionally, we achieved unparalleled integration of the Department's intelligence capabilities to enable timely and responsive indications and warning to support missile defense readiness. We expect the warfighting capability provided by such integration of assets, platforms, doctrine, and personnel to continue to grow in coming years.

The North Korean incident last summer also underscored the growing maturity of the cross-JFCC integration within USSTRATCOM in executing its global mission. JFCC-IMD collaborated closely with the JFCCs for Intelligence, Surveillance and Reconnaissance (JFCC-ISR) and Space (JFCC-Space) to integrate the intelligence, surveillance, reconnaissance, and space assets for the missile defense missions. This

effort afforded the use of intelligence, surveillance, reconnaissance, and space assets that previously had not been included in the missile defense mission. Similarly, JFCC-IMD collaborated closely with JTF-Global Network Operations to maximize availability of a robust communication network to link the decision-makers in Washington with commanders across the globe. We have also integrated our planning efforts with the JFCC for Global Strike and Integration (JFCC-GSI) to ensure we integrated both offensive and defensive capabilities into potential courses of action. Our approach today for a missile defense contingency is designed to examine and integrate a broader array of capabilities into our planning and execution. In short, JFCCs are maturing in a deliberate and coordinated pace to extend the New Triad in its global mission.

JFCC-IMD's readiness demonstrated during last summer's incident is a testimony to the robust warfighter exercise and test program. During the past year, we planned and conducted three major combatant command-level exercises involving US Pacific Command, US Northern Command and US Strategic Command. These exercises enabled combatant commanders to exercise concepts of operations and tactics, techniques, and procedures, and improve our planning and execution of missile defense operations. These activities enhance warfighter competence in prosecuting a global missile defense capability. JFCC-IMD's global missile defense exercise program also extended to our coalition partners. These international exercises further bolstered our allies' resolve in conducting combined missile defense operations and extending partnership into co-development of future capabilities.

Warfighter Contributions to System Development

Warfighters participate in key BMDS tests to build confidence in its capabilities. JFCC-IMD led warfighter participation in the first distributed ground tests on the operational BMDS, geographically distributed from Colorado to Alaska, and Washington to Japan. This test demonstrated the growing sophistication and complexity of BMDS assessments that are increasingly operationally relevant. Furthermore, warfighters collaborated with MDA to successfully conduct key flight tests to bolster our Nation's confidence in the effectiveness of the integrated missile defense capabilities.

Within a 90-day period, we successfully intercepted ballistic missiles at low and high altitudes; in midcourse and terminal phases; and, in endo- and exo-atmospheric environments with the PATRIOT Advanced Capability-3 (PAC-3), the AEGIS Standard Missile-3, the Terminal High Altitude Area Defense (THAAD), and our long-range Ground-Based Interceptor. Conducting these system-level flight and ground tests required the use of operational assets, the very assets that would be used to defend this nation against a possible North Korea missile attack. JFCC-IMD worked closely with the Combatant Commanders and MDA to coordinate the availability of these assets to ensure sustained operational readiness during the conduct of the system-level tests.

The JFCC-IMD was able to balance the requirements of both operations and tests, but this period of robust achievements underscored the warfighter's requirement to expedite development and deployment of a concurrent testing, training, and operations capability. Concurrent test, training and operations will permit developers and operators to maintain full operational mode of the BMDS while simultaneously developing, testing, or training on the system. The need for the concurrent test,

training and operations capability is especially pronounced for the one-of-a-kind assets that are shared between the warfighter, developer, and trainer communities.

Absent a mature concurrent test, training and operations capability, JFCC-IMD aggressively conducts an asset management process to ensure the highest level of operational readiness during conduct of materiel development and tests. Supported by an indications and warning system, the asset management process has been the key enabler to operationalize new capabilities, perform operationally relevant tests, and conduct system-wide upgrades. During the past year, the asset management process facilitated warfighters and materiel developers in optimizing the use of the deployed elements while fielding additional assets. In addition, warfighter participation in the flight and ground testing increased our confidence in the system's performance.

Increasing the Capability of the System

JFCC-IMD, in partnership with MDA and the Services, has integrated additional missile defense sensors and shooters to enhance theater and strategic mission capabilities. We have increased the robustness of our sensor capability by deploying a mobile sensor in Japan, increasing the number of AEGIS ships enabled with the long range search and tracking capability, and are deploying a midcourse discrimination sensor in the waters of Alaska. We have continued deployment of the Navy's Ballistic Missile Defense AEGIS Standard Missile-3, PATRIOT Advanced Capability-3 missiles, and increased the number of Ground-Based Interceptors. Additionally, in my role as the JFCC-IMD Commander, I have been in discussion with European

Command to build a stronger partnership with our Allies and to host a midcourse radar and interceptor site to counter the Iranian threat.

The Command, Control, Battle Management, and Communications System is an essential evolutionary component of the BMDS that greatly enhances both planning and execution capabilities. The command and control system contributes to all phases of integrated missile defense from optimizing planning to synchronizing the automated execution of the BMDS. During the past year, upgrades to the command and control system have extended situational awareness, planning, and sensor management capability to key components of US Strategic Command, US Northern Command, and US Pacific Command. Additionally, critical command and control system situational awareness nodes are utilized by the White House, National Military Command Center, and Secretary of Defense Executive Support Center.

As we move forward in the next year, much work remains to be done. We will continue to integrate and conduct cross-geographic combatant commander planning and exercises, deploy new capabilities, and increase allies' involvement in global missile defense. We will continue to advocate for system improvements that close capability gaps and improve system performance. Fielding more capable command and control systems, sensors, and kill vehicles, such as the Multiple Kill Vehicle, will provide the warfighter with a system capable of addressing a broad range of threats. Our continuing goal is to develop a seamless missile defense system, that integrates all available capabilities, to deter and dissuade the proliferation of missile threats, and if necessary, defeat them to protect our Nation, deployed forces, friends, and allies.

Air and Missile Defense—an Overview of the Fiscal Year 2008 Army Budget Submission

In addition to deploying the BMDS, MDA, the Services, and the Combatant Commanders continue to focus on improving theater air and missile defense capabilities. Both the Ground-Based Midcourse Defense and Theater Air and Missile Defense Systems are vital for the protection of our homeland, deployed forces, friends, and allies. Air and missile defense is a key component in support of the Army's core competency of providing relevant and ready land power to Combatant Commanders.

As you are aware, real world events over the past year have increased the relevance, urgency, and importance of theater air and missile defense as well as cruise missile defense. Medium and short-range ballistic missile and cruise missile threats continue to grow, especially in light of increased proliferation of missile defense technology. These threats, combined with Iran's and North Korea's increased interest in nuclear capabilities, are of particular concern.

As highlighted in the 2006 Quadrennial Defense Review, a number of potentially hostile states possess or seek weapons of mass destruction. This is especially troubling when considered along with ballistic and cruise missile proliferation. For these states, weapons of mass destruction – particularly nuclear weapons – provide the means to assert regional domination and intimidate others. As such, the Quadrennial Defense Review specifically highlighted the need for integrated defenses against short-, intermediate-, and intercontinental-range ballistic and cruise missile systems.

The House Armed Services Committee Defense Review Report, released in December of 2006, concluded that the U.S. force structure must expand and U.S. capabilities must improve to reduce the risk to the

security of the American people to an acceptable level and noted that a robust BMDS is critical to defeat strategic threats to the United States and its allies. The report also noted that Operation Enduring Freedom and Operation Iraqi Freedom are consuming key missile defense capabilities, leaving other worldwide commitments under-resourced.

In light of these reports and their findings, the Army, in concert with the Department of Defense and MDA, is taking the necessary steps to ensure that the U.S. homeland, allies and deployed forces are provided the necessary protection from these threats. With that as a background, I would now like to focus on the Army's Fiscal Year 2008 budget submission for air and missile defense systems. The President's Budget, presented to Congress on February 5th, includes approximately $1.75 billion with which the Army proposes to execute current Army air and missile defense responsibilities and focus on future development and enhancements of both terminal phase and short-range air and missile defense systems. In short, the Army is continuing major efforts to improve the ability to provide warning, acquire, track, intercept, and destroy theater air and missile threats.

The Army, as part of the Joint team, continues its transformation of air and missile defense forces to meet the increasingly sophisticated and asymmetric threat environment encountered by the Joint and Allied warfighter. The air and missile defense force will meet this threat by adhering to the following imperatives:

- One seamless integrated force
- Advanced engagement concepts
- Defense in depth
- 360-degree defense

- Early and continuous engagements
- Assure friendly use of airspace
- Support information dominance

Integrated Air and Missile Defense

In order to fulfill these imperatives, the Army is transforming its air defense force from its current separate systems architecture to a component-based, network-centric, Integrated Air and Missile Defense system of systems. The Integrated Air and Missile Defense Program focuses on systems integration, common battle command and control, joint enabling networking, and logistics and training to ensure operational requirements, such as force lethality, survivability, transportability and maneuverability, are achieved. Benefits of developing and fielding such a capability include:

- Expanded defended areas against the full-spectrum of threats
- Integrated defense design which eliminates single nodes of failure
- Flexibility in choice of interceptors
- Ability to battle manage weapons, sensors, and inventories
- Seamless training adjustments for battle managers across the Integrated Air and Missile Defense Force
- Closing current capability gaps

The Integrated Air and Missile Defense Program employs an evolutionary acquisition strategy that leads to the objective net-centric system of systems plug-and-fight capability. The approach calls for a restructuring of current Army air and missile defense systems into

components of sensors, weapons, and battle management command, control, communications, computers, and intelligence with a standard set of interfaces among the components using a standardized communications network. This modularization of missile defense capabilities will allow Joint Forces Commanders to scale and tailor assets and forces based upon the specific operating environment in which they are employed.

Technology insertions to the Integrated Air and Missile Defense will continue throughout each increment as high-payoff technologies mature and are ready for integration. Incremental development of the program allows the Army to more quickly field new and improved capabilities to the warfighter. The proposed Fiscal Year 2008 President's Budget supports the evolution of an Integrated Air and Missile Defense capability.

Air and Missile Defense Organizational Structure

As part of air defense transformation, the Army has created composite air and missile defense battalions. These battalions address capability gaps, permitting us to defeat cruise missiles and unmanned aerial vehicles while maintaining our ability to defend critical assets from the ballistic missile threat. Composite air and missile defense battalions will capitalize on the synergies of two previously separate disciplines: short-range air defense and high-to-medium altitude air defense. Additionally, the Army no longer provides an organic air defense artillery battalion to its Divisions. Instead, divisional air defense artillery battalions are pooled at the theater-level to provide air and missile defense protection based on situation and mission requirement. The pool of Army air and missile defense resources will address operational requirements in a tailored and timely manner. This pooling concept supports the Army's

effort to move to modular designs that allow force tailoring of units better sized to meet the Combatant Commanders' needs and homeland security and defense requirements.

Within the context just provided, allow me to briefly discuss the three main component areas of the Army's air and missile defense construct: Terminal Phase Ballistic Missile Defense, Cruise Missile Defense, and Force Protection.

Terminal Phase Ballistic Missile Defenses

The PATRIOT/Medium Extended Air Defense System (MEADS) capability is designed to counter theater ballistic missile threats in their terminal phase in addition to cruise missiles and other air-breathing threats. Combining these systems with the Terminal High Attitude Area Defense System capability being developed by MDA with a planned fielding in Fiscal Year 2009, brings an unprecedented level of protection against missile attacks to deployed U.S. forces, friends, and allies well into the future.

PATRIOT/PAC 3 Overview

Chairman, since the combat debut of the PATRIOT Air and Missile Defense System during Operation Desert Storm, the Army has continued to implement a series of improvements to address the lessons learned. During Operation Iraqi Freedom, we saw the debut of the improved PATRIOT Configuration-3 system, including the effective use of the Guidance Enhanced Missile and the PATRIOT Advanced Capability 3 (PAC-3) Missile. PAC-3 is the latest evolution of the phased materiel improvement program to PATRIOT. Combining developmental testing and operational data, this program enables the development and

deployment of a new high-velocity, hit-to-kill, surface-to-air missile with the range, accuracy, and lethality necessary to effectively intercept and destroy more sophisticated ballistic missile threats. Today's PATRIOT force is a mixture of PAC-2 and PAC-3 configured units. To maximize the full advantage of the PAC-3 capabilities, the Chief of Staff of the Army has directed the Army to pure-fleet the entire PATRIOT force to the PAC-3 configuration. In response to Combatant Commanders' requirements, the Vice Chief of Staff of the Army directed the creation of two additional Patriot battalions to help relieve the stress on the PATRIOT force and increase the Army's strategic responsiveness in the area of terminal ballistic missile defense. These directives underscore the importance of PATRIOT to the nation's overall National Military Strategy and are necessary to maximize the capabilities for protecting the security interests of both the United States and our allies.

While PATRIOT saved many lives defending against Iraqi ballistic missile attacks during Operation Iraqi Freedom, there were some operational deficiencies. The Army has undertaken steps to correct them and address lessons learned. The Army has pursued two thrusts—identification and execution of a $41.6 million program for nine specific Operation Iraqi Freedom fixes and continued aggressive participation in Joint interoperability improvements in situational awareness. The development, testing and materiel release for the nine enhancements is on schedule to be completed by the end of this fiscal year. Several enhancements have already completed fielding. The remaining enhancements are either currently being fielded or are planned to start this spring. Based on the current fielding schedule, all remaining Operation Iraqi Freedom fixes will complete fielding to the units by Fiscal Year 2009.

The PATRIOT system remains the Army's mainstay Terminal Air and Missile Defense System and our Nation's only deployed land-based short-to-medium range BMDS capability. The current PATRIOT force must be sustained and recapitalized until MEADS is completely fielded. Fielding of MEADS is scheduled to begin in 2015 and be completed by 2028.

Combined PATRIOT/MEADS Approach

With the approval of the Defense Acquisition Executive, the Army embarked on a path that merged the PATRIOT and MEADS programs, establishing the PATRIOT/MEADS Combined Aggregate Program with the objective of achieving the MEADS capability through incremental fielding of MEADS major end items into PATRIOT. PATRIOT/MEADS Combined Aggregate Program is an important capability that will operate within the BMDS. It is, in fact, a top Army priority system for defense against short- and medium-range tactical ballistic missiles and air breathing threats. The PATRIOT/MEADS Combined Aggregate Program will be an integral part of the Integrated Air and Missile Defense System of Systems and capable of operating within a Joint, interagency, intergovernmental, and multinational interdependent operational environment. It will provide wide-area protection at strategic, operational, and tactical levels.

The PATRIOT/MEADS Combined Aggregate Program will also provide battle management command and control in accordance with the IAMD provided common battle command system, introduce lightweight deployable launchers, upgrade the PAC-3 missile, and eventually provide the full MEADS capability to the entire force. By establishing the PATRIOT/MEADS Combined Aggregate Program, the Joint integrated air and missile defense architecture will become more robust in key ways.

First, MEADS enhancements are integrated into the existing system. Second, as lessons are learned from the present missile defense capability, they will be incorporated into the MEADS follow-on system.

MEADS is a cooperative development program with Germany and Italy to field an enhanced ground-mobile air and missile defense capability. The MEADS program, which supports the President's goal for international cooperation in missile defense, will enable the joint integrated air and missile defense community to operate more effectively on future battlefields. MEADS will provide theater level defense of critical assets and continuous protection of a rapidly advancing maneuver force as part of the Joint integrated air and missile defense architecture. Major MEADS enhancements include 360-degree sensor coverage and a strategically deployable and tactically mobile air and missile defense system that can be deployed and controlled as part of the integrated air and missile defense architecture. The PAC-3 Missile Segment Enhancement is currently under development and will be integrated into the MEADS program. The Missile Segment Enhancement Missile will provide a more agile and lethal interceptor that increases the engagement envelope. We are confident that this path will provide our service members, allies, friends, and our Nation with the most capable air and missile defense system possible.

Terminal High Attitude Area Defense System Overview (THAAD)

The Department of Defense is committed to fielding an advanced capability to defend against tactical ballistic missiles as soon as possible. THAAD is designed to provide critical defense against short and medium range ballistic missiles. As a result, MDA is funding and manufacturing four THAAD fire units for the Army in an accelerated fielding that will begin

in 2009. This investment represents an initial THAAD capability for the warfighter and the next major step towards a comprehensive, layered theater ballistic missile defense. Follow-on THAAD upgrades are planned in future budgets to meet an ever increasing and evolving threat.

Cruise Missile Defense

In the world today, there exists a real and growing threat from land attack cruise missiles. Cruise missiles are inherently very difficult targets to detect, engage, and destroy because of their small size, low detection signature, and low altitude flight characteristics. When armed with a weapon of mass destruction warhead, the effects from a cruise missile could be catastrophic. The Army's Cruise Missile Defense Program is an integral piece of the Joint cruise missile defense architecture. Critical Army components of the Joint cruise missile defense architecture are provided by the Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS), the Surface-Launched Advanced Medium Range Air-to-Air Missile (SLAMRAAM), the Patriot Missile Segment Enhancement Missile, and an integrated fire control capability inherent in the Integrated Air and Missile Defense System of Systems. We are also working closely with the Joint community to assure development of doctrine that synchronizes our military’s full capabilities against the cruise missile threat.

The Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System brings a critically needed capability to detect, track, and identify cruise missile threats. The system will support engagements using the Surface-Launched Advanced Medium Range Air-to-Air Missile, the Navy Standard Missile, and the PATRIOT/MEADS weapon systems by providing precision tracking and 360-degree wide-area and over-the-

horizon surveillance of land-attack cruise missiles. The Surface-Launched Advanced Medium Range Air-to-Air Missile will provide maneuver forces with a critical, beyond line-of-sight engagement capability to counter the cruise missile threat, as well as unmanned aerial vehicle threats, over an extended battlespace. The Surface-Launched Advanced Medium Range Air-to-Air Missile uses the existing Joint Advanced Medium Range Air-to-Air Missile currently used by the Air Force and the Navy, thereby capitalizing on Joint commonality on the battlefield.

Force Protection

A significant danger in Operation Iraqi Freedom and Operation Enduring Freedom is posed by insurgents employing indirect-fire tactics of quick-attack, low-trajectory, urban-terrain-masked rocket, artillery, and mortar strikes against U.S. forward operating bases in Iraq. To combat this threat, the Army developed Counter-Rocket, Artillery, Mortar (CRAM), an integrated solution of capabilities to provide warning and intercept of rocket, artillery, and mortar threats. CRAM provides a holistic approach to this emerging menace. Horizontal integration across the core functions—command and control, shape, sense, warn, intercept, respond and protect—is providing an integrated modular and scalable capability. This capability provides timely warning of mortar attacks, intercept and defeat of incoming rounds, and accurate location of insurgent mortar crews, enabling a rapid, lethal response. CRAM takes advantage of existing systems and capabilities, combining them in a system of systems architecture to support the warfighter on today's battlefield. The current CRAM solution is truly Joint, in that it uses fielded systems from the Army, Navy and Air Force along with a commercial-off-the-shelf system. To date, CRAM has been supported solely through supplemental

appropriations. Recognizing the enduring nature of the rocket, artillery, and mortar threat, the Army is exploring ways, to include the use of directed energy, to enhance this capability across all of the core functions, thereby making it even more relevant to the future modular force.

Conclusion

Chairman, the Army, a fully contributing member of the Joint team, is relevant and ready, fighting the war on terrorism, and deterring aggression throughout the world, while transforming to meet future threats. With its responsibilities for Ground-Based Midcourse Defense, THAAD, and PAC-3/MEADS Combined Aggregate Program, the Army is an integral part of the Joint team to develop and field an integrated missile defense for our Nation, deployed forces, friends, and allies. In my role as the Joint Functional Component Commander for Integrated Missile Defense, I will continue the development of a Joint BMDS capability to protect our Nation, deployed forces, friends, and allies. The Army has stepped up to the land-attack cruise missile defense challenge by aggressively developing the Joint, integrated, and networked sensor-to-shooter architecture necessary to defeat the emerging threat. The Fiscal Year 2008 budget proposal continues the transformation of the Army's air, space, and missile defense force to support the Army's future force, the Joint Integrated Air and Missile Defense System, and our global BMDS. Transformation will continue to define the characteristics of the emerging air, space, and missile defense force and determine how it can best support the future force operating in a Joint, interagency, intergovernmental, and multinational environment.

I appreciate having the opportunity to speak on these important matters and look forward to addressing any questions you or the other Committee members may have.