

RECORD VERSION

STATEMENT BY

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AND
U.S. ARMY FORCES STRATEGIC COMMAND**

BEFORE THE

**COMMITTEE ON ARMED SERVICES
STRATEGIC FORCES SUBCOMMITTEE
UNITED STATES SENATE**

SECOND SESSION, 109TH CONGRESS

APRIL 4, 2006

**NOT FOR PUBLICATION
UNTIL RELEASED BY THE
COMMITTEE ON ARMED SERVICES**

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Introduction

Mr. Chairman, Senator Nelson, and Members of the Strategic Forces Subcommittee, thank you for your ongoing support of our military and for the opportunity to appear before this distinguished panel, once again. This Committee continues to be a great friend of the Army and the missile defense community, particularly in our efforts to field missile defense forces for the Nation and our allies. I consider it a privilege to be counted in the ranks with Mr. Flory, Mr. Duma, and Lieutenant General Obering as advocates for a strong global missile defense capability.

I appear before this committee in two roles. The first is as an Army Commander for missile defense and a proponent for the Ground-based Midcourse Defense (GMD) System. The second is as a soldier in the Joint Missile Defense Team and Commander of the Joint Functional Component Command for Integrated Missile Defense (JFCC-IMD), a part of the United States Strategic Command (USSTRATCOM), and 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 (IAMD) are met.

Mr. Chairman, as I reported last year, Army soldiers are trained, ready, and operating the GMD System at Fort Greely, Alaska, and the Joint National Integration Center (JNIC) at Schriever Air Force Base in Colorado. Just a couple of years ago, we activated the GMD Brigade in

Colorado Springs, Colorado, and a subordinate GMD Battalion at Fort Greely. These soldiers, as part of the Joint team, are our Nation's first line of defense against any launch of an intercontinental ballistic missile toward our shores. I am proud to represent them along with the other members of the Army's Air and Missile Defense (AMD) community.

USSTRATCOM JFCC-IMD

The JFCC-IMD was established in January 2005 as one element of USSTRATCOM and reached full operational capability on early in 2006. This organization complements the capabilities inherent in other USSTRATCOM JFCCs and Joint Task Forces (JTFs) which plan, coordinate, and integrate USSTRATCOM's other global missions of Space and Global Strike, Intelligence Surveillance and Reconnaissance (ISR), Net Warfare and Global Network Operations, and the newest element, the USSTRATCOM Center for Combating Weapons of Mass Destruction (WMDs).

The JFCC-IMD is manned by Army, Navy, Air Force, and Marine Corps personnel. It is headquartered at the JNIC at Schriever Air Force Base, Colorado. This arrangement enables us to execute the IMD mission by leveraging the existing robust infrastructure and our strong partnership with our collocated MDA team.

In the past year, USSTRATCOM, through the JFCC-IMD, has aggressively executed its mission to globally plan, coordinate, and integrate missile defense. In collaboration with geographic Combatant Commands, we are developing IMD plans within a regional area of operations in the context of USSTRATCOM's global mission instead of individual theater plans.

Based on guidance from the Commander, USSTRATCOM, we

have also developed plans to take existing MDA assets, currently in test and development status, and rapidly transition them, in an emergency, to an operational warfighting capability. This allows USSTRATCOM to provide additional critical IMD capabilities to the Combatant Commands in times of crisis. Examples of this capability include early activation and deployment of the AEGIS SM3 Missile and the sea-based and Forward Based X-band Transportable (FBX-T) Radar to operational locations in the Pacific region, where, by the end of 2006, they will join a global network of radars. USSTRATCOM initiated planning efforts to integrate the capabilities of all the JFCCs to support the “New Strategic Triad,” as it determines the next steps needed to fulfill our commitment to an integrated missile defense capable of defending the U.S., its deployed forces, friends, and allies.

JFCC-IMD works closely with the other JFCC elements of USSTRATCOM and the Combatant Commands to make Offense – Defense Integration, ISR, and the other mission areas integral aspects of how we fight, to ensure the optimal application of limited resources.

The IMD community, led by the USSTRATCOM Commander and his Unified Command Plan Authority, has conducted numerous capability and readiness demonstrations, integrated flight and ground tests, and Combatant Command exercises to develop and validate the operators’ tactics, techniques, and procedures. As we work toward our system’s future operational capability, increased warfighter involvement in the testing and exercising of the Ballistic Missile Defense System (BMDS) ensures both the viability of the defense and the confidence of its operators.

USSTRATCOM, through the JFCC-IMD, is leading the planning of global missile defenses with the development of the global IMD Concept

of Operations (CONOPS). The CONOPS relies on the development and coordination of engagement sequence groups (ESGs) and the advocacy of desired global missile defense characteristics and capabilities.

USSTRATCOM-developed global IMD CONOPS serves as a roadmap for the warfighting community to guide the development of more detailed IMD planning and execution. These CONOPS contains two fundamental principles. First, the geographic component commanders execute the IMD fight within their Areas of Responsibility (AORs). Second, multi-mission sensors are centrally tasked by USSTRATCOM Commander to optimize their use in forming ESGs.

As a key requirement for IMD planning, the identification of ESGs as the optimal pairing of sensor and weapon capabilities required to provide active missile defense for the designated defended area is critical. The ESGs are a tool the IMD community uses to help operate the BMDS by balancing operational necessity with the realities of ongoing research, development, and testing in the near term. As more elements and components are made available, ESGs will serve to optimize our global missile defense system.

The USSTRATCOM commander represents all the component commands as the advocate for IMD. He executes this responsibility at two levels. First, for those elements already deployed, Headquarters, USSTRATCOM J8, in collaboration with the JFCC-IMD, conducts the Warfighter Involvement Process (WIP) to evaluate the adequacy of the current capabilities of the BMDS. This process can encompass anything from identifying simple human interface changes or modifications to developing refined planning tools. These needs are prioritized by USSTRATCOM for review and approval and are provided to MDA for consideration. The second level of advocacy focuses on future capability

needs. These future elements and components will provide additional capabilities that enable a more robust, reliable, and capable system.

The critical element that ties the entire BMDS system together is the Command and Control Battle Management Communications, or C2BMC. C2BMC is an essential evolutionary component of the BMDS that will greatly enhance both planning and execution capabilities. C2BMC contributes to all phases of BMD from optimizing planning to synchronizing the automated execution of the BMDS. Upgrades to the Command, Control, Battle Management, and Communications System will extend situational awareness capability to Pacific Command and European Command by the end of 2006.

As our planning processes have matured over the past year, JFCC-IMD's innovative use of new collaborative planning capabilities in major combatant command exercises has demonstrated the effectiveness of distributed crisis action planning. JFCC-IMD was able to support the Combatant Commands with development of new defense designs and optimized locations for BMDS in exercises such as USSTRATCOM's GLOBAL LIGHTNING and PACOM's TERMINAL FURY.

Through our partnership with MDA, the Services, and the warfighters at the Combatant Commands, USSTRATCOM is setting the stage to evolve the BMDS beyond its current capability to that of providing more robust missile defense for the homeland, deployed forces, friends and allies. We are actively engaged with MDA and the Services in the development and deployment of BMDS elements and components ensuring a layered, multi-phase operational capability for the Combatant Commands.

Air and Missile Defense—an Overview of the Fiscal Year 2007 Army Budget Submission

In addition to deploying a GMD system, MDA, the Services, and the Combatant Commanders are focused on improving Theater Air and Missile Defense (TAMD) capabilities within the context of the evolving BMDS in Integrated Air and Missile Defense (IAMD) Joint Integrating Concept. Both GMD and TAMD 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.

I would now like to focus on the Army's Fiscal Year 2007 budget submission for Air and Missile Defense (AMD) systems. The President's Budget, presented to Congress on February 6th, includes approximately \$1.57 billion with which the Army proposes to perform current Army AMD responsibilities and focus on future development and enhancements of both terminal phase and short-range AMD systems. In short, the Army is continuing major efforts to improve the ability to acquire, track, intercept, and destroy theater air and missile threats.

The Army, as part of the Joint team, is transforming its AMD forces to meet the increasingly sophisticated and asymmetric threat environment encountered by the Joint warfighter. The Army has the lead to conduct the IAMD Capabilities Based Assessment. This analysis will comprise the front end of the Chairman of the Joint Chiefs of Staff Joint Capabilities Integration Development System. The study will identify key joint, agency and combat command IAMD capability gaps and will recommend doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) transformation actions. The document is envisioned to fulfill time-phased IAMD needs across the range of military operations.

Integrated AMD System of Systems

The Army is transforming its Air Defense Force from its current separate systems architecture to a component-based, network-centric, IAMD System of Systems (SoS). The IAMD SoS program focuses on systems integration, common battle command and control, joint enabling networking, and logistics and training, to ensure operational requirements, such as force protection, lethality, survivability, transportability and maneuverability are achieved. The IAMD SoS program will employ an evolutionary acquisition strategy consisting of a series of increments leading to the objective capability. This SoS approach calls for a restructuring of systems into components of sensors, weapons and Battle Management Command, Control, Communications, Computers, and Intelligence (BMC4I) with a standard set of interfaces among these components using a standardized set of networks for communication.

Technology insertions to the IAMD SoS will continue throughout each increment as high-payoff technologies mature and are ready for integration. Incremental development of the IAMD SoS allows the Army to field new or improved capabilities to warfighters faster, by producing and deploying systems and components as the technologies mature. Funding in the proposed Fiscal Year 2007 President's Budget supports the first steps in achieving an IAMD SoS architecture.

Air and Missile Defense Battalions

As part of Air Defense Transformation, the Army is creating composite AMD battalions. These battalions address capability gaps, which permit us to defeat cruise missiles and unmanned aerial vehicles (UAVs) while maintaining our ability to defend critical assets from the

ballistic missile threat. The composite AMD battalions will capitalize on the synergies of two previously separate disciplines: short-range air defense and high-to-medium altitude air defense. The current plan is to organize eight battalions as PATRIOT-pure units, four battalions as AMD battalions, and create one battalion, in Korea, as a maneuver AMD battalion. This transformation is underway.

Within the context just provided, allow me to briefly discuss each of the programs that support the Army's AMD Transformation.

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 Theater High Attitude Area Defense (THAAD) 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 and MEADS Overview

Mr. Chairman, since the combat debut of the PATRIOT AMD System during Operation Desert Storm, the Army has continued to implement a series of improvements to address the lessons learned. During Operation Iraqi Freedom (OIF), 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 has enabled 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 Army is moving toward pure-fleeting the entire PATRIOT force to the PAC-3 configuration.

As I highlighted last year, PATRIOT saved many lives when defending against Iraqi ballistic missile attacks during OIF. However, 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 OIF fixes and continued aggressive participation in joint interoperability improvements in situational awareness. All funded OIF fixes are on schedule to be completed by the end of Fiscal Year 2007, pending any materiel release issues.

The PATRIOT system remains the Army's mainstay TAMM system and our nation's only deployed land-based short-to-medium range BMDS capability. The current PATRIOT force must be maintained through sustainment and recapitalization efforts, until the MEADS is fielded, projected to begin in 2015.

MEADS is a cooperative development program with Germany and Italy, to collectively field an enhanced ground-based AMD capability. The MEADS program, which supports the President's goal for international cooperation in missile defense, will enable the joint integrated AMD community to move beyond the critical asset defense designs we see today. MEADS will provide theater level defense of critical assets and continuous protection of a rapidly advancing maneuver force as part of a

Joint IAMD architecture. Major MEADS enhancements include 360-degree sensor coverage, a netted and distributed battle manager that enables integrated fire control, and a strategically deployable and tactically mobile, AMD system. While the PAC-3 missile is the baseline missile for the international MEADS program, the Missile Segment Enhancement (MSE) missile is being developed to meet U.S. operational requirements. MSE will provide a more agile and lethal interceptor that increases the engagement envelope.

Combined PATRIOT/MEADS Approach

With the approval of the Defense Acquisition Executive, the Army embarked on a path to merge the PATRIOT and MEADS programs, establishing the PATRIOT/MEADS Combined Aggregate Program (CAP) with the objective of achieving the MEADS capability through incremental fielding of MEADS major end items into PATRIOT. PATRIOT/MEADS CAP is an important capability that will operate within MDA's BMDS. It is in fact, the number one Army priority system for defense against short and medium-range Tactical Ballistic Missiles and air breathing threats (i.e. cruise missiles and UAVs). The PATRIOT/MEADS CAP will be capable of operating within a joint, interagency, and multinational interdependent operational environment. It will provide wide-area protection at strategic, operational, and tactical levels.

PATRIOT/MEADS CAP will also provide BMC4I, introduce lightweight deployable launchers, upgrade the PAC-3 missile, and eventually provide the full MEADS capability to the entire force. The MEADS system offers a significant improvement in the ability to deploy strategically while maintaining tactical mobility. The system uses a netted and distributed architecture with modular and configurable battle

elements, which allows for integration with other Army and Joint sensors and shooters. These features and capabilities will allow MEADS to achieve a robust 360-degree defense against all airborne threats. By establishing the CAP, the joint integrated AMD architecture has become more robust. 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. We are confident that this path will provide our service members, allies, friends, and the Nation with the most capable AMD system possible.

The Army and the entire missile defense community continue to strive to improve our nation's missile defense capabilities. The PATRIOT and PAC-3/MEADS CAP research, development, and acquisition budget request for Fiscal Year 2007 is approximately \$916.5 million. This request procures 108 PAC-3 missiles, purchases spares for the system, and reflects the necessary PATRIOT development to keep the system viable as we pursue development of PAC-3/MEADS CAP capabilities.

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 WMD warhead, the effect of a cruise missile could be catastrophic. It is clear that the required systems and capabilities necessary to counter this emerging threat need to be accelerated to field a cruise missile defense (CMD) capability as soon as possible. The Army's CMD program is an integral piece of the Joint Cruise Missile Defense architecture, and we are proud of our contributions to this effort. Critical Army components of the

Joint CMD architecture are provided by the Joint Land Attack Cruise Missile Defense Elevated Netted Sensor (JLENS), the Surface-Launched Advanced Medium Range Air-to-Air Missile (SLAMRAAM), and an integrated fire control capability. 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.

JLENS Overview

JLENS brings a critically needed capability to address the growing CM threat. To support an elevated sensor, the JLENS program is developing unique lightweight fire control and surveillance radars to detect, track, and identify CM threats. JLENS will support engagements using the SLAMRAAM/Complementary Low Altitude Weapon System (SLAMRAAM/CLAWS), Navy Standard Missile, and PATRIOT/MEADS weapon systems. JLENS uses advanced sensor and networking technologies to provide precision tracking and 360-degree wide-area, over-the-horizon surveillance of land-attack cruise missiles. The Fiscal Year 2007 JLENS funding request of \$264.5 million supports development of a full JLENS capability, with the first unit equipped by 2011.

SLAMRAAM Overview

SLAMRAAM will provide a CMD system to maneuver forces with an extended battlespace and a beyond line-of-sight, non-line-of-sight engagement capability critical to countering the CM threat, as well as UAV threats. SLAMRAAM uses the existing Joint AMRAAM missile currently used by the Air Force and the Navy, thereby capitalizing on the Joint harmony that the Department of Defense (DoD) is striving to achieve. The Army and the Marine Corps are also executing a joint cooperative

development for SLAMRAAM/CLAWS to meet the needs of soldiers and Marines in Homeland Defense as well as overseas deployments. The Fiscal Year 2007 funding request of \$49 million supports the scheduled Initial Operational Capability (IOC) target of 2011.

Sentinel Radar Overview

The Sentinel Radar is an advanced, three-dimensional, phased array air defense radar and a critical component in the Army's ability to conduct air surveillance for the maneuver force. Sentinel is a small, mobile battlefield radar that supports the joint air defense sensor network in detecting cruise missiles, UAVs, and helicopter threats, thereby contributing directly to the overall Single Integrated Air Picture (SIAP) and supporting multiple Homeland Defense missions. Its Enhanced Target Range and Classification (ETRAC) radar upgrades will enable it to support engagements at extended ranges and reduce the time required to perform target classification. Additionally, these upgrades support next generation combat identification for friendly air, thereby reducing the possibility of fratricide and providing an enhanced positive friendly and civil aviation identification capability. The Fiscal Year 2007 funding request of \$17.6 million provides for joint identification and composite sensor netting development efforts, four ETRAC system upgrade kits, and development and integration of improvements to support joint interoperability.

Air, Space, and Missile Defense Command and Control

The Army is increasing its command and control capabilities on the battlefield. The Army's Air and Missile Defense Commands (AAMDCs) will help integrate TAMD operations, by integrating, coordinating, and

synchronizing Joint attack operations, active defense, passive defense, and C4 operations in the theater, and also globally tie into our JFCC-IMD.

Concurrent with the creation of AMD composite battalions, the Army has developed, and is now in the process of fielding, air defense airspace management (ADAM) cells throughout the force. ADAM cells will perform four missions: plan AMD coverage, contribute to third-dimension situation awareness and understanding, provide airspace management, and integrate operational protection. With an emphasis on receiving and sharing the Joint air picture from multiple sources and assets through the battle command network, ADAM cells will provide commanders with situational awareness as well as the traditional friendly and threat air picture, enabling commanders to effectively manage their aerial assets. ADAM cells are already being fielded to the Army to meet modularity requirements, with two ADAM cells at the Division Headquarters and one to every Brigade in the Army, to include both the active and reserve forces. This high-priority system has been supported through supplemental appropriations to this point. The Fiscal Year 2007 funding request of \$49.5 million provides 15 ADAM Cells for the active and reserve components.

Also in the past year, the Army activated the 94th Air and Missile Defense Command, supporting the US Pacific Command (USPACOM) theater of operations. With the 94th AAMDC activation, there are three Army AMD Commands; two in the active component and one in the reserve component. The 94th AAMDC, designed for Joint and multinational operations, will provide for missile defense in the Pacific theater and will assist in planning theater-level air and missile defenses. The 94th AAMDC will provide the PACOM commander with a more robust theater-based capability. Moreover, the unit's presence in the Pacific adds

depth, because its capability will be readily available to the warfighting commander.

The Joint Tactical Ground Stations (JTAGS), forward deployed today in European Command (EUCOM), Central Command (CENTCOM), and PACOM, are providing assured missile warnings to Combatant Commanders and assigned forces through a direct downlink from space-based infrared assets into the joint theater communications architecture. In addition to protecting the deployed force, these systems alert the BMDS architecture and enhance attack operations. The Fiscal Year 2007 funding request of \$24.9 million sustains the forward deployed JTAGS units supporting Joint warfighters and postures the Army to participate with the Air Force in a future ground mobile system compatible with the Space-Based Infrared System (SBIRS) and follow-on sensors. The planned Multiple Mission Mobile Processor (MP3) Program is being restructured due to the delays in the SBIRS schedule.

Counter-Rocket, Artillery, Mortar (C-RAM)

A significant danger in OIF/OEF today is posed by insurgents employing indirect-fire tactics of quick-attack, low-trajectory, urban-terrain-masked rocket, artillery, and mortar (RAM) strikes against U.S. forward operating bases in Iraq. To combat this threat, the Army developed C-RAM, an integrated solution of capabilities to provide warning and intercept of RAM threats. C-RAM provides a holistic approach to the Counter-RAM mission. 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. C-RAM takes advantage of existing systems and capabilities, combining them in a SoS architecture to support the warfighter on today's battlefield. The current C-RAM solution is truly Joint, in that it uses fielded systems from the Army, Navy and Air Force along with a commercial-off-the-shelf (COTS) system. C-RAM has been supported through supplemental appropriations. The Army will request funding for continued C-RAM fielding in the upcoming supplemental request, and the C-RAM program will be included in the Army's POM beginning in Fiscal Year 2008.

Directed Energy Initiatives

The Army continues to explore directed energy capabilities for weapon system development and integration into Army Transformation applications. High Energy Laser (HEL) systems have the potential of being combat multipliers, meeting air and missile defense needs in the future and enhancing current force capabilities, such as addressing the RAM threats. The ability of a HEL system to shoot down RAM targets has been repeatedly demonstrated, with mature chemical laser technologies proven by the Tactical High Energy Laser (THEL) program.

Meanwhile, the Army's Fiscal Year 2007 science and technology funding request of \$32.8 million supports HEL technology development focused on solid state laser technologies that will offer electric operation and compatibility with the Future Combat System (FCS) by the year 2018. The Army is participating in a Joint high-powered solid state laser program with the Office of the Secretary of Defense High Energy Laser Joint Technology Office and the other Services to pursue several candidate solid state laser technologies with the operating characteristics necessary for weapon system development. In Fiscal Year 2007, while leveraging

the Joint program, the Army is initiating a HEL Technology Demonstrator (HELTD) that will, by Fiscal Year 2013, have the ability to shoot down RAM threats as a stepping stone toward deployment of HELs in a FCS configuration. Ultimately, HELs are expected to complement conventional offensive and defensive weapons at a lower cost-per-shot than current systems.

Conclusion

Mr. Chairman, the Army, a full contributing member of the Joint team, is relevant and ready, fighting the war on terrorism, deployed in Southwest Asia and elsewhere, and deterring aggression throughout the world, while transforming to meet future threats. With its responsibilities for GMD and PATRIOT/MEADS, the Army is an integral part of the Joint team to develop and field the BMDS in defense of the 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 warfighters and our Nation. 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 2007 budget proposal continues the transformation of the Army's ASMD Force to support the Army's Future Force, the Joint Integrated Air and Missile Defense System, and our global BMDS, building on the ongoing success of our theater AMD force in Operation Iraqi Freedom. Transformation will continue to define the characteristics of the emerging ASMD force and determine how it can best support the Future Force operating in a Joint, interagency, 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.