Introduction

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

Today, I appear before this committee in two roles. The first role is as the Army representative for missile defense and proponent for the Ground-based Midcourse Defense (GMD) System. In my second role, I am a member of the Joint missile defense team as the Joint Functional Component Commander for Integrated Missile Defense (JFCC IMD) in support of the United States Strategic Command (USSTRATCOM), and the joint user representative working closely with the Missile Defense Agency, other services, and combatant commanders to ensure that our national goals of developing, testing and deploying an integrated missile defense system are met.

Mr. Chairman, as we speak, Army soldiers are trained and ready to operate the GMD System and are deployed at Fort Greely, Alaska, and the Joint National Integration Center at Shriever Air Force Base, Colorado.
Over a year ago, we activated the GMD Brigade in Colorado Springs, Colorado, and a subordinate GMD Battalion at Fort Greely, Alaska. 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 Community.

**New Army Role for Integrated Missile Defense**

Integrating our missile defense capabilities is of paramount importance to the Joint force. In January 2005, Commander, USSTRATCOM established a Joint Functional Component Command for Integrated Missile Defense (JFCC IMD) and appointed me, as Commander of JFCC IMD. The mission of the JFCC IMD is to integrate and globally synchronize missile defense systems and operations to provide an optimized layered missile defense against missiles of all ranges and in all phases of flight. The JFCC IMD conducts USSTRATCOM’s responsibilities for IMD planning, coordination, and integration and ensures day-to-day operational support responsibilities are coordinated. This allows USSTRATCOM to focus on strategic level integration and advocacy of their Unified Command Plan assigned missions. JFCC IMD does not execute missile defense operations; that is a geographic combatant commander function.

JFCC IMD is one of four joint functional component commands recently established by Commander, USSTRATCOM. The other three are JFCC Intelligence, Surveillance and Reconnaissance (JFCC ISR), JFCC Network Warfare (JFCC NW), and JFCC Space and Global Strike (JFCC S&GS). These JFCCs work in concert to accomplish their assigned global missions.
Focusing specifically on missile defense, I would like to outline how this cross mission integration works to support both the USSTRATCOM mission and that of the geographical combatant commanders. The preferred means of addressing an adversary’s offensive missile capability is to destroy the missiles before they can be launched. JFCC ISR and the space elements of JFCC S&GS work collaboratively to locate the launch site and supporting infrastructure and provide that information to the warfighter. In essence, they “find the archer before he releases the arrow.” If successful in locating the archer, the combatant commanders attempt to destroy the missiles on the ground or render them ineffective by kinetic or non-kinetic means. Any missiles that survive the offensive strikes are then engaged by the active defense forces of the combatant commands after launch.

JFCC IMD is presently developing a flexible Concept of Operations (CONOPS) based on the new strategic triad and, in concert with the geographical combatant commanders, will synchronize theater missile defense plans into the overall global missile defense campaign. One of the critical responsibilities of the JFCC IMD outlined in the CONOPS is to examine the theater plans and recommend allocation of missile defense assets, as well as means to address shortfalls in active defense assets through offensive and defensive integration across multiple theaters.

Advocacy to the warfighter is as important to the JFCC IMD role as operations. One of my primary functions is to determine what the warfighter needs in the field and carry those requirements and characteristics back to the development community. To achieve this, we are in the process of operationalizing the Warfighter Involvement Process (WIP) and the development and execution of wargames and experiments to validate our operational concepts and future capability needs. In
summary, the JFCC’s mission will be to provide an optimized, integrated, missile defense system to the geographical combatant commanders.

A major part of the JFCC IMD’s capabilities are inherent in its technical partnership with the Missile Defense Agency (MDA), which is charged with building our global Ballistic Missile Defense System (BMDS). This unique relationship allows rapid deployment of RTD&E assets from the MDA test bed to the warfighter and rapid implementation of technical solutions in the field. It is truly a new way of doing business.

The planning, integration, and synchronization of missile defense systems includes the full missile defense spectrum of shooters (GMD, Terminal High Altitude Air Defense (THAAD), and AEGIS Standard Missile-3), sensors (Upgraded Early Warning Radars, Cobra Dane Radar, Sea Based X-Band (SBX) Radar and the Forward Based X-Band Transportable (FBX-T) Radar) and Command, Control, and Battle Management (C2BM) systems. Critical to this planning effort is the continued spiral development of the Command, Control, Battle Management and Communications (C2BMC) capability and other collaborative planning tools that can provide dynamic and real-time analysis of courses of action.

This new joint command will be manned by Army, Air Force, Navy, and Marine Corp personnel. Its headquarters will be located at the Joint National Integration Center, at Schriever Air Force Base, Colorado, allowing us to leverage the existing robust infrastructure and our strong partnership with the MDA to execute IMD planning and operational support responsibilities. The JFCC IMD, which initiated operations in February 2005, is focusing on asset management, intelligence collection, planning, and global situational awareness. We are in the process of attaining full operational capability by September 2005.
Air and Missile Defense—an Overview of the Fiscal Year 2006 Army’s 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, as well at the recently published 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—providing relevant and ready land power to Combatant Commanders.

Today, I have been asked to focus on the Army’s Fiscal Year 2006 budget submission for air and missile defense (AMD) systems. The President’s Budget, presented to the Congress on February 7th, includes approximately $1.25 billion with which the Army proposes to perform current Army AMD responsibilities and focus on future development and enhancement 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 air and missile defense forces to meet the increasingly sophisticated and asymmetric threat environment encountered by the joint warfighter. A common Battle Command System (BCS) with integrated fire control will enable the use of a single coherent common air picture to engage the threat with any number of assets; thereby allowing Army and Joint air and missile defense forces to see first, understand first, act first, and finish decisively. This evolution will enable us to transform from point defense
systems to an area defense capability with units that are tailorable and modular to support the mission needs of the Joint Force’s requirements.

**Terminal Phase Ballistic Missile Defenses**

The PATRIOT/MEADS capability is designed to counter theater ballistic missile threats in their terminal phase in addition to cruise missile and other air breathing threats. Combining these systems with the THAAD capability, being developed by MDA with a planned fielding in Fiscal Year 2009, brings an unprecedented umbrella of security 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 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 (OIF), we saw the debut of the improved PATRIOT Configuration-3 system, including the effective use of the Guidance Enhanced Missile (GEM) and the PATRIOT Advanced Capability 3 (PAC 3) missile. During OIF, PATRIOT saved many lives defending against Iraqi ballistic missile attacks.

The PATRIOT system remains the Army’s premier theater air and missile defense system and our Nation’s only deployed short-to-medium range ballistic missile defense capability. PAC-3 is the latest evolution of the phased materiel improvement program to PATRIOT. Combining developmental testing and operations, 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.
The Medium Extended Air Defense System (MEADS), is a cooperative development program with Germany and Italy to collectively field an enhanced ground-based 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 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 integrated air and missile defense 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, air and missile defense 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 by the Defense Acquisition Executive, the Army embarked on a path to merge the PATRIOT and MEADS programs. In so doing, the PATRIOT/MEADS Combined Aggregate Program (CAP) was established. The objective of CAP is to achieve the objective 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 (TBM)s and air breathing threats (cruise missiles and UAVs).
The PATRIOT/MEADS CAP will be able to operate within a joint, interagency, and multinational interdependent operational environment. It will provide wide-area protection at the strategic, operational, and tactical levels of operations.

To comply with directions from both Congress and the Department of Defense, the Army has combined the RDT&E funding for PAC-3 and MEADS into a single funding line in the Fiscal Year 2006 budget request. This combined funding has enabled the Army to accelerate incremental fielding of transformational MEADS capabilities into the Patriot force. Incremental fielding reduces sustainment costs and delivers increased anti-missile defense capability across the force earlier. It also offers the most efficient use of limited, valuable resources while giving maximum flexibility in funding to meet the changing needs of the warfighter.

PATRIOT/MEADS CAP will provide common Battle Management Command, Control, Communications, Computers, and Intelligence, will introduce lightweight deployable launchers, upgrade the PAC-3 missile, and eventually will provide the full MEADS capability to the entire force. The MEADS system offers a significant improvement in strategic deployability and tactical mobility. The system uses a netted and distributed architecture with modular and configurable battle elements allowing it to integrate 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.

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 2006 is approximately $887 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 acceleration of PAC-3/MEADS CAP capabilities. By establishing the CAP, the joint integrated air and missile defense 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 Nation with the most capable air and missile defense system possible.

Cruise Missile Defense

There exists a real and growing threat from land-attack cruise missiles in the world today. 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. The Army, with the concurrence of the Joint Staff, has provided additional funding to these critical CMD programs to support an accelerated CMD 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 (CM) 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/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 FY06 JLENS funding request of $106.4 million supports development of full JLENS capability, with first unit equip occurring by Fiscal Year 2010.

**SLAMRAAM Overview**

Surface Launched Advanced Medium Range Air-To-Air Missile (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 utilizes the existing Joint AMRAAM missile currently used by the Air Force and the Navy, thereby exploiting the jointness 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 for roles in Homeland Defense as well as overseas deployments. The Fiscal Year 2006 funding request of $55.4 million supports the scheduled Initial Operational Capability (IOC) target of 2008.
**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 of 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 contributing directly to the overall Single Integrated Air Picture (SIAP) and supporting multiple Homeland Defense missions. It’s 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 2006 funding request of $13.4 million provides for joint identification and composite sensor netting development efforts, four ETRAC system upgrade kits and continues the development and integration of improvements to support joint interoperability.

**Air, Space & Missile Defense Command and Control**

The Army is increasing its command and control capabilities on the battlefield. The Army’s Air and Missile Defense Command (AAMDC) will help integrate TAMD operations, by integrating, coordinating, and synchronizing joint attack operations, active defense, passive defense, and C4 operations in the theater. The Joint Tactical Ground Station (JTAGS) Multi-Mission Mobile Processor (M3P) is a key component in the Army’s transformation strategy. It will provide assured missile warning to
geographical combatant commanders using existing theater communication systems to disseminate processed information through a direct downlink from space based infrared assets into the joint theater communications architecture. The JTAGS M3P program will deliver cost-effective joint and common systems for both the Army and the Air Force to support their respective theater and national strategic early warning and cueing missions. The Fiscal Year 2006 funding request of $27.4 million continues development and integration of this joint capability in synchronization with the Air Force’s Space-Based Infrared System (SBIRS) program and provides sustainment of the forward deployed JTAGS units supporting Joint warfighters in EUCOM, CENTCOM, and PACOM.

**Directed Energy Initiatives**

The Army continues to explore directed energy capabilities for weapon system development and integration into Army Transformation applications. High energy laser systems have the potential to be a combat multiplier, meeting air and missile defense needs in the future and enhancing current force capabilities by addressing rocket, artillery, and mortar (RAM) threats. The ability of a high energy laser system to shoot down RAM targets has been repeatedly demonstrated, with mature chemical laser technologies proven in the Tactical High Energy Laser (THEL) program. However, as a consequence of higher Army priorities, the chemical based laser efforts are not programmed to continue in Fiscal Year 2006.

Meanwhile, the Army’s Fiscal Year 2006 science and technology funding request of $21.1 million supports high energy laser technology development focused on solid state laser technologies that will offer an
electric operation and compatibility with the Future Combat System by the year 2015. The Army is participating in a joint high power solid state laser program with the OSD High Energy Laser Joint Technology Office and the Air Force Research Laboratory to pursue several candidate solid state laser technologies with the operating characteristics necessary for weapon system development. Ultimately, high energy lasers 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 Ballistic Missile Defense System in defense of the Nation, deployed forces, friends, and allies. My role as the Joint Functional Component Commander for Integrated Missile Defense will significantly add to the Army's ability to continue development of a Joint BMDS 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-C2-shooter architecture necessary to defeat the emerging threat. The Fiscal Year 2006 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 recent success of our theater air and missile defense 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 members of the Committee may have.