

RECORD VERSION

STATEMENT BY

**LIEUTENANT GENERAL N. ROSS THOMPSON, III
PRINCIPAL MILITARY DEPUTY TO THE ASSISTANT SECRETARY OF THE ARMY
FOR ACQUISITION, LOGISTICS AND TECHNOLOGY AND
DIRECTOR, ACQUISITION CAREER MANAGEMENT**

AND

**LIEUTENANT GENERAL STEPHEN M. SPEAKES
DEPUTY CHIEF OF STAFF OF THE ARMY, G-8**

BEFORE THE

**SUBCOMMITTEE ON AIR AND LAND FORCES
COMMITTEE ON ARMED SERVICES
UNITED STATES HOUSE OF REPRESENTATIVES**

ARMY ACQUISITION, RESET, AND MODERNIZATION PROGRAMS

FIRST SESSION, 111TH CONGRESS

MAY 21, 2009

**NOT FOR PUBLICATION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

Introduction

Chairman Abercrombie, Congressman Bartlett, and distinguished Members of the Subcommittee on Air and Land Forces, we thank you for this opportunity to discuss Army Acquisition, Reset, and Modernization Programs in the Fiscal Year 2010 budget request. We are pleased to represent Army leadership, members of the Army acquisition workforce, and the more than one million courageous men and women in uniform who have deployed to combat over the last seven years and who have relied on us to provide them with world-class weapon systems and equipment for mission success. We thank Members of this Committee for your steadfast support and shared commitment to this goal.

We would like to begin by discussing those who are at the heart of everything we do: the Soldier. They are over a million strong – men and women, Active and Reserve – polished by seven years of war. We have more Soldiers deployed today than at the height of the surge. We now have a generation of Soldiers not seen in over 30 years: hardened by battle, having made sacrifices that most of us cannot begin to imagine, forever embodying the strength of this Nation. We know that they will continue to face a complex and ever-changing operational environment. And as we enter a period of transition – a shift from major operations in Iraq to Afghanistan – it is even more important that we carefully and closely manage how we are equipping our most precious asset, Soldiers. To that end, we are here today to discuss our refined plans for continuing to equip, reset, modernize the force and execute a responsible withdrawal from Iraq.

The Army Equipping Strategy

The Army has had the historical goal of fully equipping all units to their Modified Table of Organization and Equipment (MTOE). Because our operational demands outpace our ability to fully restore readiness, equipping to this standard is no longer possible. Since we began to develop modular formations and implement the Army Force Generation (ARFORGEN) model, we have evolved an equipping strategy to meet the variable needs of a force being managed under cyclic readiness and attain

“equipping balance.” Equipping balance is Soldiers operating within ARFORGEN having the right equipment amounts, types, and modernization to meet their mission requirements – whether in combat, training to go to combat, or operating as part of the Army’s generating force. The exception to this strategy is units conducting Homeland Defense and Defense Support to Civil Authorities missions: they will always be fully equipped.

To achieve balance, the Army Equipping Strategy encompasses three major lines of operation. The first one, the unit-focused main effort, is ARFORGEN-based equipping. The second is focused on using equipping sets to manage “friction.” The third is targeted at institutional processes, and is called “building enduring readiness.” This strategy provides a framework by which the Army, through full partnership between the Active Army, the Army National Guard, and the Army Reserve, can more effectively manage equipment to meet mission requirements.

ARFORGEN-Based Equipping

ARFORGEN-based equipping is defined by a series of equipping metrics or goals tied to each phase of the ARFORGEN cycle: Reset, Train-Ready, and Available. Units in reset should have minimal specific equipping expectations. However, this does not mean that they will not have equipment. Units will have much, but not all, of their individual equipment and other equipment that is not subject to reset outside of their units, such as at depots. Equipment will be delivered or fielded to units during the reset phase to prepare them for entry into the Train-Ready Pool. The delivery of this equipment will require careful synchronization with the arrival of new personnel into the unit and to ensure that the unit is prepared to receive, account for, store, and maintain the equipment. Also during this phase, the Reserve Component units will be properly equipped to meet their obligations in support of HLD and State and Territory Governors.

Within the next phase, Train-Ready, units can expect to have about 80 percent of their MTOE authorization. This is essential to provide the Army strategic depth and flexibility. The Army has long insisted that Soldiers “train as they will fight.” The reduced equipping levels in the Train-Ready phase of ARFORGEN will require

Commanders to adapt and plan training with consideration of the expected levels of equipment fill. Because the equipping goals of the strategy provide some level of predictability, developing effective training should be achievable.

As units approach the Available phase, they will be filled to the full requirements for their assigned mission. Some equipment authorizations will be specific to that mission and will not reflect what is authorized in the unit's MTOE. This level of fill can be referred to as "90%+." The equipment needed to move to 90%+ may be provided before deployment, but in many cases the final equipping will be provided by Theater Provided Equipment (TPE) or other equipment sets. For those units without an assigned mission that enter the Available phase, they will be equipped to their full MTOE requirements.

Managing Friction

The second line of operation addresses "friction." It reflects the reality that a significant percentage of equipment is in strategic transportation or in reset and unavailable to the unit. The Army has done extensive studies which suggest that roughly 20 percent of Army inventory, within certain capabilities, can be characterized as "friction." Whether the equipment is providing needed utility in our equipping sets, fielded as a result of an operational needs statement, deployed with "ad hoc" formations, going through reset or is in transit over strategic distances, the equipment is not present in a unit whose MTOE or TDA originally justified the procurement. Success in the managing this friction is measured by how well the Army can see its own equipment inventories and make informed decisions about how to allocate that inventory to build Army readiness, how to meet the goals established in the ARFORGEN-based Equipping, and what new equipping goals will be feasible over time.

The Army will continue to plan for and procure equipment at the level defined by the "Army Acquisition Objective (AAO). This AAO represents the level of procurement the Army requires to fill all MTOE and TDA authorizations, including Army Prepositioned Stocks, as well as a small quantity of additional systems to provide maintenance floats and war reserve stocks, as well as dealing with friction. Some outside observers have

viewed the differing readiness expectations of the early phases of the ARFORGEN cycle to imply that we can achieve equipping efficiencies, and therefore buy equipment at a quantity less than the full Army requirement. This observation, however, fails to account for the impact of friction. It also fails to account for the requirement to provide some level of strategic depth above and beyond the dedicated forces in the Available pool. It is precisely those differing readiness expectations during the ARFORGEN cycle that allows the Army to provide the flexibility and agility necessary to address the “costs” of friction. Procuring any lower than the AAO would have significant impacts on the ability of the Army to respond to changing equipping requirements in active theaters (i.e., Operational Needs Statements), compromise our strategic depth, and weaken surge capability in the DoD industrial base.

Building Enduring Readiness

Building enduring readiness is the third line of operation. This line of operation is focused on Army management policies and structure. The Army has performed essential, creative, and effective work to develop new ways of dealing with equipping challenges in the current strategic environment. This line of operation is focused on capturing that good work and indoctrinating it and improving it. Success in this line of operation is measured by the Army’s ability to improve the utility of equipping goals and guidance over time as we better understand how varying levels and types of equipment affect Army readiness in all phases of ARFORGEN. This will enable to the Army to bring resources and requirements into better synchronization with cyclic equipping readiness requirements.

Achieving Equipping Balance

These three lines of operation establish the primary vision and guidelines the Equipping Strategy. They will be operationalized primarily by the work of the Army Materiel and Readiness Enterprises, and in annually updated annexes with the Army Campaign Plan. Most importantly, they will be operationalized as we institutionalize the culture of equipment stewardship and ARFORGEN-based equipping.

Equipping an organization as large and complex as the Army requires sophisticated planning, synchronization, and execution. Success is primarily measured by increasing how well equipping contributes to overall Army Readiness, or achieving equipping balance. As we move toward the goal of increased readiness, Soldiers and Commanders should have clear expectations as to what level of equipment they will receive – and when. Commands and staffs should have a clear understanding of how to allocate equipment most efficiently and effectively to support Army training and readiness goals. Finally, the Army should be postured to ask itself the hard questions on how to best position Army Equipping for the future.

Reset

Just as important to readiness as ensuring Soldiers have the right equipment to fight is ensuring their needed equipment is returned from the Theater and properly reset. Reset is a cost of war, and it prepares our Soldiers and their equipment for an unpredictable future and evolving threats. I cannot overstate the importance of resetting units and rebuilding their readiness in a deliberate way – it is the difference between having a hollow force and one that's truly ready for whatever missions the Nation requires. If we pause for a moment, we will fall behind.

Over the past year, we have reset nearly 130,000 items of equipment, and we expect to sustain this pace for as long as we have substantial forces deployed. To stay on track, we require the FY09 OCO request of \$3.5 billion for reset by July. The FY10 OCO request of \$11 billion includes \$7.9 billion in Operations and Maintenance and \$3.1 billion for procurement. We will continue to work with Theater to determine the impact of the withdrawal from Iraq and its impact on FY10 funding.

Modernization

The adage that “we never want to send our Soldiers into a fair fight” is at the core of the Army Modernization Strategy. Modernization is the key to ensuring our Soldiers maintain a decisive advantage over whatever enemy they face, while improving their survivability. We are pursuing a strategy that rapidly fields equipment to the current

force; upgrades equipment for Soldiers going into combat and modernizes select systems; spins-out technologies, and modernizes Brigade Combat Teams. In every aspect of modernization, we leverage lessons learned from Soldiers in the current fight to speed fielding of enhanced capabilities to the force, and concurrently develops capabilities Soldiers need today.

We are transitioning immediately from a Future Combat System (FCS) Brigade Combat Team (BCT) Strategy to a BCT Modernization Strategy. To more rapidly develop the capabilities the Army needs for today's fights, our BCT modernization strategy is focused on building a versatile mix of mobile, networked BCTs that can leverage mobility, protection, information, and precision fires to conduct full spectrum operations across the spectrum of conflict. Such an approach will enable Soldiers to receive key "high-payoff" systems that are quickly integrated into BCTs.

With respect to the **Future Combat Systems (FCS)** program, the FY2010 President's Budget calls for us to 1) accelerate fielding of spin-outs to all 73 BCTs starting in FY2011; 2) halt the development and procurement of FCS manned ground vehicles; and 3) halt the development and procurement of the Non-Line-of-Sight-Cannon (NLOS-C).

The Army plans to halt the current FCS program after the System of Systems Preliminary Design Review. We will move from a modernization strategy focused on fielding 15 FCS BCTs and spin-outs of FCS systems, as mentioned earlier, to a BCT modernization strategy focused on building a versatile mix of networked BCTs and enablers that can leverage mobility, protection, information, precision intelligence and fires to conduct effective full spectrum operations across the spectrum of conflict.

This BCT modernization strategy will incorporate the valuable technological and network advances we have drawn from the FCS program, as well as the key technologies that are already in use in Iraq and Afghanistan (e.g., MRAP, biometric devices and intelligence systems), into our modular formations to enhance their full spectrum capabilities.

To fill our need to replace our Cold War era ground combat vehicles, we will develop a ground combat vehicle concept that incorporates the lessons of the past

seven years at war and the technological advances from the FCS program to build a vehicle capable of full spectrum operations. We plan to field this vehicle in five to seven years.

With regard to existing vehicle upgrades, the Army's combat platform modernization program is focused on standardizing 31 Heavy Brigade Combat Team (HBCT) sets with two variants of the **Abrams** tank and **Bradley Infantry Fighting Vehicle**, two of the Army's highest priority combat vehicle recapitalization programs. This modernization will provide 27 operational HBCTs and four strategic HBCTs. At present, the Army has nearly completed fielding modularized HBCTs, which gives every brigade a common structure. The short term modernization goal is to populate these brigades with only two variants of the Abrams and the Bradley – the Abrams M1A2SEP v2 is being paired with its partner the Bradley M2A3 and the Abrams M1A1AIM SA is being teamed with the Bradley M2A2ODS SA. This modernization plan aligns compatible combat platforms with common modular formations.

Stryker has planned procurement of 3,616 vehicles with 2,765 having been accepted to date. The Stryker program received a Full Rate Production decision on eight of 10 configuration variants, including the Infantry Carrier Vehicle, Reconnaissance Vehicle, Commander Vehicle, Mortar Carrier Vehicle, Fire Support Vehicle, Anti-tank Guided Missile Vehicle, Engineer Squad Vehicle, and Medical Evacuation Vehicle. The remaining variants – the Nuclear, Biological and Chemical Reconnaissance Vehicle and the Mobile Gun System – are in Limited Rate Production. The Secretary of Defense authorized, and the Army has funded, the procurement and fielding of seven Stryker BCTs to fulfill National security requirements. This will equip seven brigade-size units including maintenance floats, a strategic pool of ready-to-fight systems, Institutional Training Base, Test Articles, a Depot Repair Cycle Float Pool managed by the U.S. Army Materiel Command, other operational requirements, Nuclear Biological and Chemical Reconnaissance Vehicles to fill non-SBCT armored Chemical, Biological, Radiological and Nuclear requirements, and vehicles to support theater operations in Afghanistan.

Modernization of the Army's **Tactical Wheeled Vehicles** continues to be a critical step in providing the Soldier with the best possible protection, payload and performance in each vehicle of the fleet. We are working to balance competing factors, including support to current operations and future readiness while synchronizing our wheeled vehicle procurement, recapitalization and sustainment efforts.

We continue sending **Up-Armored High Mobility Multipurpose Wheeled Vehicles (UAH)** into theater and upgrading the vehicles' ability to protect our Soldiers. Initiatives such as Fragmentation Kits 6 and 7 are being procured for installation on UAHs to counter Improvised Explosive Device (IED) and sniper attacks. At the same time, we are investing in a myriad of technologies that will increase the platform's capabilities to engage the enemy. Systems such as acoustic gunshot detection systems, Remote Weapons Stations, and Long Range Advanced Scout Surveillance System are intended to increase the ability of our Soldiers to identify and engage the enemy.

In other areas of our Tactical Wheeled Vehicle (TWV) fleets, we plan to field within the next few months the first of approximately 6,000 medium vehicles built in line with our Long Term Protective Strategy (LTPS). These vehicles will be capable of easily accepting armor kits that provide better protection when needed and allow removal of the kits when the protection is not needed. We are working with the U.S. Army Training and Doctrine Command to finalize LTPS and ensure that the TWV fleet armoring requirements reflect the latest lessons learned. LTPS trucks will be fielded to the next deploying units to ensure that Soldiers receive the most capable armor protection during their deployments.

For survivability against the current threat, the Army delivered more than 10,600 Mine Resistant Ambush Protection (MRAP) vehicles to Iraq, Afghanistan and Kuwait in the last 15 months, of which nearly 9,400 are in operational use. During that time, we received insightful assessments from commanders and Soldiers regarding MRAP performance, capabilities, and recommended improvements. The next evolution of MRAP is the **MRAP-All Terrain Vehicle (M-ATV)**. A Request for Proposal was released in December 2008 and evaluation of vendor proposals is underway. One of

the Army's equipping tenets is to provide our Soldiers with the best available equipment and capabilities that technology will allow.

Our future plans include production of an affordable, sustainable, long-term system such as the **Joint Light Tactical Vehicle (JLTV)**, a family of vehicles with companion trailers capable of performing multiple mission roles that will replace the High Mobility Multipurpose Wheeled Vehicle starting in 2015. JLTV is a Joint Army/U.S. Marine Corps and U.S. Special Operations Command program designed to provide protected, sustained, networked mobility for personnel and payloads across the full range of military operations. JLTV will require a design that supports inherent and supplemental armor, scalable to mission.

The Army provides every Soldier in theater with **Interceptor Body Armor (IBA)**, a centerpiece program for the Army that is saving lives every day. IBA is a modular design that provides protection against fragmentation and small arms ammunition. The current Army body armor provided to Soldiers – **Improved Outer Tactical Vest (IOTV)** equipped with Enhanced Small Arms Protective Inserts (ESAPI) plates – meets operational requirements and is proven both in rigorous testing and in combat to be the best body armor in the world.

The Army has continually improved its body armor over time in response to emerging threats and warfighter needs. The current IOTV has three primary improvements: (1) a quick release, (2) less weight, and (3) more area coverage. The quick release allows removal of the body armor in case of an emergency, to avert drowning, or enable medical personnel ready access to an injured Soldier. In seeking the next generation of body armor, the Army continually collaborates with industry to meet Army requirements.

The Army is investing research, development, test, and evaluation funds to develop technologies at the system and component levels that can reduce the weight of body armor and for future developments of the next generation body armor. In the near term, the Army is looking into the use of plate carriers which offer a further weight savings by reducing the area of coverage of ballistic protection while enhancing Soldier survivability through increased mobility and operational effectiveness. Special

Operations Forces are already using a plate-carrier vest called the Modular Body Armor Vest (MBAV), and the Marine Corps is using a plate carrier called the Scalable Plate Carrier. The Army just completed an evaluation of the MBAV, and plans to issue MBAV with ESAPI to approximately 500 Soldiers deploying to Afghanistan, for an in-Theater assessment.

A Soldier Protection Demonstration – ongoing from May 11-20, 2009, at Yuma Proving Grounds in Arizona – is evaluating six plate carrier systems, including the Special Operations Forces MBAV and the Marine Corps Scalable Plate Carrier. The results of the demonstration will provide Army leadership with the information necessary to determine which plate carrier vest is required to meet the needs of units in Theater.

The latest advancement in Soldier protection is the introduction of the **Next Generation Small Arms Protective Inserts (XSAPI)**. An XSAPI plate weighs (depending on size) approximately 6-11 ounces more than an ESAPI plate but protects Soldiers against an emerging threat projectile. Currently, Headquarters Department of the Army approved a requirement for a contingency stock of 120,000 sets of XSAPI. XSAPI is currently in production with deliveries to Theater expected to be completed by November 2009.

The Army intends to conduct a **competition for a new carbine** in FY2010. The new carbine's requirement document is in staffing within the Army Staff and will soon be forwarded to the Joint Staff for Joint Requirements Oversight Council (JROC) approval. The draft Request for Proposal (RFP) will be released to industry as soon as the requirement document is approved. The release of a formal RFP will start the process for a competition that may result in a new carbine for the U.S. Army. Additionally, the PM continues a rigorous improvement program of the Army's current carbine, the Colt M4.

Joint Tactical Radio System (JTRS) is a DoD initiative to develop a family of software-programmable tactical radios that provide mobile, interoperable, and networked voice, data and video communications at the tactical edge of the battlefield. For the Army, JTRS will initially provide a tactical radio communications network for Spin Outs as well as Infantry, Heavy, and Stryker Brigade Combat Teams (BCTS) by

providing the tactical networking transport capability through scalable and modular networked communications. It will also provide the current force a mobile, ad hoc networking capability using, new advanced waveforms --- Soldier Radio Waveform and Wideband Networking Waveform.

The majority of the radios in the Ground Mobile Radio (GMR) Program and the Handheld, Man-pack and Small Form Fit Program will be procured for the Army. GMR will provide the Army a multi-channel (up to four channels) operation, allowing full functionality of each legacy radio it replaces. In addition, GMR will include an integrated global positioning system (GPS) capability based on the Selective Availability Anti-Spoofing Module-based GPS receiver with a Precise Time and Time Interval output.

HMS will provide a Scalable and modular Software Communications Architecture compliant networked radio frequency communication capability to meet Army Handheld, Man-pack (Mounted & Dismounted) and Embedded Radio requirements. The program will deliver a Handheld (2 Channel) radio, a Man-pack (2 Channel) radio, and various Small Form Fit radios for various ground sensors/unattended vehicles/unmanned air vehicles.

Warfighter Information Network – Tactical (WIN-T) is the transformational command and control communications system that provides the backbone wide area tactical network at echelons from theater through company in support of full spectrum operations. Following the program's restructure in 2007, the Army plans to field the latest networking capability to our Soldiers in four increments, as advanced technologies for enhanced communications becomes available. At present, the Army has already fielded Increment 1 to more than 50 percent of the total force giving our Soldiers a communications network that is largely satellite based, allowing for beyond line-of-sight communications and commercial Internet networking technology.

Increment 2 brings initial networking on-the-move capabilities embedded in various platforms to allow a fully operational and connected communications networking capability for our Soldiers (from brigade down to the company level). Increment 2 features include commercial routers, radios, and antennas that are technologically mature, with waveform technology optimized for high-capacity broadband networking

and support that enables high throughput while the unit is on-the-move. Increment 2 is expected to achieve a low rate initial production decision this August, with fielding expected to begin in 2011.

Increment 3 capabilities bring the full on-the-move capabilities that feature a single radio combining the line-of-sight and the satellite waveforms from Increment 2 in a military chassis which includes Global Broadcast Service receive capability. Air-tier development work planned under this increment brings even more robust communications, providing three tiers of communications that result in less reliance on satellite communications. Network Operations will continue to develop in both Increments 2 and 3 to achieve a fully integrated capability for planning, initializing, operating, and managing the entire on-the-move network.

WIN-T Increment 4 represents the last of the developmental program elements and will provide technology insertions to enable enhanced satellite communications protection.

With regard to **Army Aviation**, it has been five years since the Army with the support of Members of Congress and the Office of the Secretary of Defense (OSD) terminated the Comanche helicopter program to allow modernization of the entire Army Aviation fleet. In just those few years, we have seen steady and substantial progress. Today, nine of the 13 systems identified for funding at Comanche termination are in production. By Fiscal Year (FY) 2011, we will have started fielding all the aircraft programs, except the Armed Reconnaissance Helicopter. That means 69 percent of all these programs are in some form of production today – low, initial, or full rate production, with 54 percent in full rate production.

These programs will contribute directly to overseas contingency operations by priority fielding to units preparing to deploy to combat operations or currently deployed in support of combat operations. We want to emphasize that every one of these programs will be fielded to units next in rotation to the warfight or units now supporting the warfight. Currently operating in combat operations are the CH-47F and UH-60M helicopters, the Sky Warrior Alpha, Sky Warrior Block '0', and Raven Unmanned Aircraft Systems and a pre-production variant of the Micro Air Vehicle spun out of the Future

Combat Systems. The Light Utility Helicopter has enabled the return of UH-60s to the warfighting fleet and has allowed retirement of UH-1 and OH-58s in both the Active and Reserve Components.

The Army Aviation fleet is performing extremely well in Iraq and Afghanistan under exceptionally challenging and dangerous conditions. More than 3 million flight hours have been flown since hostilities began in Iraq in March 2003. Our monthly operational tempo (OPTEMPO), depending on the aircraft type, is three to five times higher than normal peacetime mission requirements. Despite these demands, our mission capable rates met or exceeded the 75 percent standard established for Army aircraft.

These numbers have been achieved as the demand for aviation forces and platforms has continued to increase. While numbers of troops deployed ebbs and flows, the demand for aviation forces continues to grow and will be at its peak as a sixth aviation brigade will deploy to theater. Army Aviation has an essential role in overseas contingency operations, and will continue to perform that role until the last Soldier comes home.

The Army is currently managing a number of major aircraft programs that provide the current capability to the commanders in the field, and will provide enhanced capability in the future.

The **UH-60 Black Hawk** is the work horse of Army Aviation. The current UH-60 fleet is comprised of 1,748 aircraft, including 951 UH-60As (produced between 1978 and 1989), 689 UH-60Ls (produced since 1989) and 108 new UH-60Ms. The Black Hawk helicopter is in its 32nd year of production. To date, the Army has employed seven multi-year, multiservice production contracts. The current contract extends from FY2007 to FY2011 and includes Navy H-60 aircraft, as well as Foreign Military Sales aircraft.

The ongoing UH-60A to UH-60L recapitalization program extends the service life of the Black Hawk program while providing the improved capability and safety margin of the UH-60L. The Army plans to induct 38 aircraft in FY2009 and 228 aircraft between FY2010 and FY2015.

The UH-60M program incorporates a digitized cockpit for improved combat situational awareness, lift, range, and handling characteristics for enhanced maneuverability and safety. These improvements also extend the service life of the aircraft. The Army plans to improve the safety of the UH-60M platform with a Preplanned Product Improvement upgrade through the installation of digital source collectors, and improved handling capabilities provided by Fly-By-Wire technology, plus increased rotorcraft interoperability through the integration of a Common Aviation Architecture System shared with the CH-47F Chinook and Special Operations helicopter fleets. Additionally, the Army intends to pursue a Common Engine Program shared with the AH-64 Apache fleet.

The **AH-64D Apache** is the world's most lethal and survivable helicopter. It is the most feared weapon system in the current theater of operations. Continued modernization, including the ongoing fielding of the Modernized Target Acquisition Designation Sight/Pilot Night Vision Sensor, is critical to maintaining that position.

The Block III Apache is essential to the Army's current and future forces. It is the Army's only manned aviation platform able to meet the network centric requirements of the future force as well as Joint Force requirements. It is also the first aircraft designed for and fully capable of complete control of Unmanned Aerial Vehicles (UAVs). This characteristic fully enables the synergistic manned-unmanned teaming between attack aircraft and UAVs that is showing such promise on the battlefield. The Apache Block III System Development and Demonstration remains on schedule and within budget. All Acquisition Program Baseline milestones have been met or exceeded to date. A Longbow Apache, with Block III technologies installed, performed well in the recent Future Combat Systems Experiment 2.1/Joint Expeditionary Force Experiment Spiral 3.0 and was the only Army aviation platform participating.

High OPTEMPO in Iraq and Afghanistan, coupled with repeated deployments of Longbow units, have consumed an inordinate percentage of the Apache airframes' useful life. The majority of aircraft will enter Block III remanufacture with less than 50 percent of the airframe's design life (10,000 hours) remaining. Block III remanufacture

is an ideal opportunity to insert new airframes into the Apache fleet at minimal additional cost, providing 100 percent of the design life back to the fielded unit.

The Army is on track with its commitment to modernize the remaining AH64A battalions in the National Guard. The Army will remanufacture two of these battalions in FY10 and 11 leaving only two AH64A battalions in the Army. The modernization plan for the last two battalions of AH64A will be dependent on the outcome of the 'Analysis of Alternatives' for the Armed Scout Helicopter.

The **Light Utility Helicopter** (LUH) program is successfully executing the Army transformation strategy and meeting all cost, schedule, and performance targets as specified in the acquisition strategy. The aircraft has been fielded to the National Training Center at Fort Irwin, California; the Joint Readiness Training Center at Fort Polk, Louisiana; and the U.S. Army Transportation Corps at Fort Eustis, Virginia. Additionally, the LUH has been fielded to Army National Guard (ARNG) units.

The Army is procuring 345 aircraft with a firm fixed price contract. To date, the Army has purchased 128 UH-72 Lakota aircraft -- 58 aircraft have been delivered and more than 54 fielded. The UH-72A has demonstrated exceptional readiness rates that exceed 90 percent. The Lakota is currently conducting Medical Evacuation, VIP, and general support missions. It has also been fielded to ARNG units to conduct disaster relief, counter drug operations, and institutional training missions.

Production of the LUH is transitioning from Germany to Columbus, Mississippi. Forty aircraft were produced in Germany and the remaining 305 will be produced in the United States as part of a three phase production duplication plan. The complete domestic production line operation has begun and will be fully transferred to Columbus by the end of 2009. Increasing domestic content is also part of the production duplication plan and is expected to exceed the 65 percent goal.

The ARNG is pursuing funding to procure, apply, and sustain a Mission Equipment Package – searchlight, Forward Looking Infrared, situational awareness/command and control moving map displays, hoists and Medical Evacuation kits to support the Security and Support battalions in their support of the homeland security/homeland defense/counter-drug mission.

The **CH-47 Chinook** is a proven heavy-lift helicopter, supporting our Soldiers every day in Iraq and Afghanistan and conducting missions that no other helicopter on the battlefield can accomplish. It is the Army's only helicopter capable of intra-theater cargo movement of payloads up to 16,000 pounds. The Army is fully committed to the procurement of 513 Army CH-47F and U.S. Special Operations Command MH-47G aircraft. To date, the Army has taken delivery of 61 CH-47F and 49 MH-47G aircraft, has an additional 222 CH-47F and six MH-47G aircraft on contract, and has fielded four operational CH-47F Chinook units – two of which have deployed to the theater of operations.

The U.S. Army signed a five year firm-fixed price contract for 181 CH-47F Chinook aircraft that will achieve a minimum savings of \$450 million or 11 percent. The multi-year contract provided for 34 option aircraft, 10 of which were executed with the basic contract. The CH-47F Chinook program is on-cost, on-schedule, and has met or exceeded all performance requirements.

The Army and the Department of Defense remain committed to the requirement for a manned **Armed Scout Helicopter** (ASH) capability and the need to deliver this capability to our Soldiers in a responsible and timely manner.

As a capability bridging strategy, the Secretary of the Army approved a strategy to maintain the Armed Reconnaissance Helicopter (ARH) funds within Army aviation and redistribute them into three primary efforts: (1) sustaining and improving the OH-58D Kiowa Warrior; (2) modernizing the ARNG AH-64A fleet; and (3) conducting a competition for and procuring the capabilities associated with the future ASH. The Vice Chief of Staff of the Army and the Army Acquisition Executive jointly signed a Memorandum for the Record codifying this strategy.

To support the potential procurement effort, the Army is conducting a bottom up review of the armed reconnaissance capability requirement to include a thorough assessment of the specific requirements identified for the initial ARH program, as well as initiating a formal 'Analysis of Alternatives'. The analysis will cover the entire spectrum of options – from the potential use of UAVs to the use of a manned/unmanned aircraft mix to the procurement of a new manned platform.

Due to the time required to complete these assessments, the Army is currently evaluating what additional enhancements and life extension work, if any, will be required to continue to safely sustain the Kiowa Warrior fleet until a replacement is procured.

The U.S. Army Audit Agency completed an official After Action Review to identify lessons learned from the termination of the ARH program. The results are being evaluated for assimilation into Army acquisition programs and for use in developing an acquisition strategy to meet the manned ARH requirement.

The **Joint Heavy Lift** (JHL) was intended to be a Vertical Take Off and Landing heavy-lift aircraft supporting mounted vertical maneuver. The JHL requirement has been incorporated into the U.S. Air Force lead **Joint Future Theater Lift** (JFTL) effort. The JFTL requirements document is under development. The envisioned aircraft will provide a heavy lift (20+ ton) payload capability at 200+ miles, aerial sustainment to the point of need, the ability to operate over tactical and operational distances to/from land or sea bases, and the ability to self-deploy.

The **Aerial Common Sensor** (ACS) program is the Army's future multi-intelligence, manned, fixed-wing, Reconnaissance, Surveillance and Target Acquisition/ISR system that carry multiple highly accurate intelligence sensors, processing tools, air/ground/satellite communications, and onboard operators/analysts. This unique combination of attributes provides the ground tactical commander an assured near-real-time operational view of unprecedented clarity enabling tactical ground forces to operate at their highest potential. ACS is awaiting Defense Acquisition Executive approval to release the Technology Development (TD) Request for Proposal. A successful source selection will result in the award of two competing TD contracts which call for preliminary system design and prototyping efforts. The JROC approved the ACS Capability Development Document in November 2008.

Unmanned Aircraft Systems (UAS) are a rapidly growing capability that Army Aviation has helped to develop. As an example of how quickly this capability has grown within the Army, when Operation Iraqi Freedom (OIF) began in March 2003, there were only six aircraft deployed in support of that operation. Today, we have more than 1,100

air vehicles in either OIF or Operation Enduring Freedom (OEF). This capability continues its fast growth. For example, it took the Army 13 years to fly the first 100,000 hours of UAVs. It took us less than a year to fly the next 100,000 hours, and we fly more than that each year in theater.

The Extended Range/Multipurpose (ER/MP) UAS, **Sky Warrior**, will be deployed and integrated with the Combat Aviation Brigade, with immediate responsive Reconnaissance, Surveillance, and Target Acquisition to the division commander.

ER/MP can carry multiple simultaneous payloads to include: (1) Electro-optical/Infrared/Laser Designator; (2) Synthetic Aperture Radar; (3) Communications Relay; and (4) Weapons. ER/MP UAS will use both Tactical Common Data Link and Satellite Communications data links. The program is on track to deploy a Quick Reaction Capability to OIF in July 2009 and another in summer 2010. The Program of Record will field its First Unit Equipped in FY2011.

The hand-launched and rucksack portable **Raven Small Unmanned Aircraft System** (SUAS) provides the small unit with enhanced situational awareness and increased force protection through expanded reconnaissance and surveillance coverage of marginal maneuver areas. Commanders at the company level have greater ability to shape over-the-hill operations with their own dedicated UAS.

The Raven is fielded to the U.S. Special Operations Command, the U.S. Marine Corps, the U.S. Air Force, and the ARNG to provide increased capabilities for domestic mission responsibilities as required. There are over 1,318 Raven SUAS fielded and more than 300 Raven SUAS supporting Soldiers in Iraq and Afghanistan. The program is meeting all cost, schedule, and performance targets.

The **Shadow** Tactical Unmanned Aircraft System (TUAS) provides DoD and coalition partners with a high quality, reliable, and interoperable UAS. Currently, units are flying at an OPTEMPO of up to three times what was originally envisioned for the system. While the OPTEMPO remains high, the accident rate has been reduced each year.

The U.S. Marine Corps is partnered with the Army for purchase of systems, support equipment, and performance based logistics services. Through this approach,

economies of scales provide efficiencies for cost, commonality, and joint operations. Currently, 66 systems have been delivered and fielded to the Army and six to the Marine Corps. The readiness rate of the Shadow system averages above 94 percent. As of March 2009, the total hours flown by Shadow in support of theater operations were 352,101 hours, out of a total program history of 385,118 hours flown. More than 90 percent of all Shadow hours flown since 2000 have been in support of theater operations.

The **Future Combat Systems Class I and Class IV UAS** will provide significantly enhanced networked capabilities to the force. Class I systems are ducted fan air vehicles with a single integrated gimbal consisting of an electro optical camera, infrared camera, laser range finder, and laser designator. The Class I mission is to provide reconnaissance, surveillance, and target acquisition (RSTA) to the platoon and company. The system's hover and stare capability allows it to stay in one place for an extended period of time while its maneuverability allows it to operate in complex environments that would be impractical for current force fixed wing UAS.

The Class I leverages technologies developed by the Defense Advanced Research Projects Agency as part of the gas Micro Air Vehicle (gMAV) program. The gMAV has interchangeable electro optical and infrared camera and is currently used in OIF by the 56th Stryker BCT. The Class I block 0, a gMAV variant, is in development and testing by Program Manager FCS as part of the Spin Out effort. The Class IV UAS is a brigade-level Vertical Take Off and Landing UAS that provides the brigade commander with a day/night and adverse weather RSTA and communication relay capability. The Class IV UAS has an endurance of 5.3 hours with Vertical Take Off and Landing ability at unprepared and unimproved landing zones. The Class IV carries multiple sensors and communications suites simultaneously and performs onboard processing and sensor cross-cueing while providing full motion video and sensor data using the FCS network's communications. Class IV missions include: RSTA, minefield detection, ground moving target indication, wide area surveillance, wideband communication relay, meteorological survey; and, Manned/Unmanned teaming with manned aviation. Currently there is no Vertical Take Off and Landing UAS fielded.

The **Persistent Threat Detection System** (PTDS) is a Quick Reaction Capability program with a tethered aerostat equipped with a high resolution electro-optic/infra-red camera system. It is integrated with existing radar, infra-red, and acoustic systems that cue the aerostat payload to provide near real-time eyes on target for continuous surveillance and detection in support of missions in theater. Currently, a total of five systems have been deployed in OEF and three in OIF.

Constant Hawk is another successful Quick Reaction Capability program supporting counter improvised explosive device (C-IED) efforts in OIF. It provides airborne persistent surveillance capability that allows analysts to backtrack a sequence of events, detect the event and identify its origin. We currently have four systems deployed in OIF as part of Task Force Observe, Detect, Identify, Neutralize (ODIN). Due to its demonstrated capability and successes in Iraq, we have three Constant Hawk systems programmed for Task Force ODIN-Afghanistan.

Other Critical Equipping Topics

Equipping the National Guard. The Army has made significant progress in equipping the Army National Guard (ARNG) to enhance their role as an operational reserve. In 2001, ARNG funding was \$1 billion. Since then, with the great support of the Congress, ARNG funding has increased significantly. The average funding for National Guard Equipping from FY02-13 is anticipated to be around \$3.9 billion per year, a 290 percent increase. In addition, a bow wave of equipment is beginning to be delivered to the National Guard: from January 2009 to December 2010, almost 600,000 pieces of equipment are projected to be delivered. So far this year, over 90,000 pieces have been fielded to the ARNG.

Similarly, the ARNG has seen an increase in capabilities through modernization. For instance, the UH-1 Huey has long been a work horse of the ARNG. Now, with the increased numbers of Blackhawk and fielding of the new Light Utility Helicopter, the last Huey is expected to leave the ARNG by the end of FY09. Another example is the famous “deuce and a half,” or 2 ½ ton truck, which has been used for decades by the ARNG for a variety of cargo missions. In 2001, the ARNG had 16,504, or 62 percent, of

these vehicles in the Army. We anticipate that the last 2 ½ ton truck will leave the ARNG by FY11.

Finally, due to increased levels of equipping the 2009 Hurricane Season is the first season since 2004 for which the ARNG has assessed itself as having sufficient equipment on hand to provide the necessary response. This is being done without relying on loaned equipment from the Active Component or the Army Reserve.

Just like the Active and Army Reserve components, however, shortages in equipment remain. This budget request continues progress towards resolving these shortages but it does not complete the requirements. According to the ARNG, their most critical shortages remain in: Army Battle Command Systems, medium trucks, and various Combat Service Support items as such as water purification systems, generators, material handling equipment, and field feeding systems.

Achieving Transparency. Transparency is the process that provides accountability and traceability of a specific piece of equipment, from budget submission through funding authorization and on to procurement and delivery to Army users. One would think that this would be a fairly straightforward task. It is not. Today, we have individual financial and acquisition systems built to control and track funding and contracted amounts. Further, we have property accountability systems designed to keep track of property, but are not linked to the funding source. The gaps between these disparate systems are wide and difficult to link. However, we are on a deliberate path to obtain full transparency. Right now, the Army is collecting data manually and through selected systems to gather the needed information. Our first full set of data is expected to be prepared by July 2009. For the long-term, we will adjust automation systems and adapt processes to support transparency reporting. The Army is fully committed to mastering the challenge of achieving full transparency in the equipping process.

Challenges in Equipping the Force

We are entering into a delicate period of transition between theaters that will either result in the restoration of the force or creation of equipping challenges similar to those faced at the beginning of this war. As the Nation begins a responsible drawdown in Iraq, a critical element of restoring readiness and building strategic depth is the return and restoration of U.S. equipment. Diversion of U.S. equipment that contributes to the Army MTOE will have a negative effect on Army readiness. If it is the National will for the Army to transfer equipment to the Iraqi forces, compensation for those items is needed for replacements so we do not further degrade readiness. For example, there are over 19,000 tactical wheeled vehicles in TPE in Iraq. These vehicles would address some of the truck shortages we have in non-deployed forces. Once the equipment is distributed, it will have a favorable impact on non-deployed readiness – an area of great concern to us.

Of more immediate concern to the Army is the timely passage of the Overseas Contingency Operations supplemental for the remainder of this fiscal year. At the current rate of spending, we will exhaust during the month of July all funds to pay active duty Soldiers and all funds for the day-to-day operation of the Army.

Closing

Modernization is providing our Soldiers with leading-edge technologies and advanced capabilities to fight the wars we are engaged in today while simultaneously preparing them for future threats. It is our duty to ensure that our Soldiers are equipped for mission success, and we thank you for your strong support and demonstrated commitment to this goal.