

**RECORD VERSION**

**STATEMENT BY**

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

**BEFORE THE**

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UNITED STATES HOUSE OF REPRESENTATIVES**

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## **Introduction**

Chairman Dicks, Congressman Young, and distinguished Members of the Subcommittee on Defense – thank you for this opportunity to appear before you to discuss Army ground equipment and other acquisition programs. It is a privilege for me 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 eight years and who have relied on us to provide them with world-class weapon systems and equipment for mission success. Your steadfast support and shared commitment to this goal are appreciated throughout our ranks.

In providing our Soldiers with world-class capabilities, we remain ever mindful that our most important asset is our people – our acquisition and contracting workforce. We appreciate the support provided by Members of this Subcommittee and Members of Congress as we work to rebuild this important workforce to handle the increasing workload in managing our acquisition programs as well as the number of contracted actions and contracted dollars, which in the last 15 years has increased in excess of 500 percent. At present, we have roughly 41,000 civilian and 1,600 military workforce members who manage roughly 25 percent of the Army's budget and a diverse portfolio of more than 600 programs.

As background, Section 852 of the 2008 National Defense Authorization Act, Public Law No. 110-181, directed the establishment of the Defense Acquisition Workforce Development Fund which enabled the Department of Defense to recruit and hire, develop and train, and recognize and retain its acquisition workforce. In April 2009, the Secretary of Defense directed Defense Acquisition Workforce Growth of 20,000 defense acquisition civilian personnel by Fiscal Year 2015. Our goal is to in-source current contractor positions performing inherently governmental (or closely associated with inherently governmental functions) and to hire new defense acquisition positions. The Army has a target to in-source roughly 4041 contractor positions, which includes roughly 151 in-sourced positions for Army contracting, and to hire about 1,885

new acquisition personnel, which includes approximately 1,650 new positions for Army contracting.

Along with the additional workforce personnel, we thank you for authorizing five additional General Officer billets for contracting. We have promoted three Colonels with a strong contracting background to General Officer in the past three years. I served most recently as the Commanding General, Joint Contracting Command Iraq/Afghanistan and today we have Brigadier General Camille Nichols, serving in that capacity. With your help and the help of the Office of the Secretary of Defense, we are working aggressively to reverse the years of decline in authorized strength levels and restore the skill level of our acquisition and contracting workforce to deal with the growing complexities of our business environment.

The Army's acquisition and contracting workforce is a critical resource that requires unique education, training, and experience in order to perform vital acquisition functions. We are working to ensure the readiness and sustainment of our professional civilian and military workforce by promoting leadership and professional development opportunities and thereby ensure quality products and services for our Soldiers.

### **The Army Modernization Strategy**

The Army Modernization Strategy is determined by the Deputy Chief of Staff of the Army, G-8, and reflects an overarching vision to meet the equipping demands of the 21<sup>st</sup> Century by developing and fielding an affordable and interoperable mix of the best equipment available to allow Soldiers and units to succeed in both today's and tomorrow's full spectrum military operations. The Army Modernization Strategy relies on three interrelated lines of effort:

- 1) Develop and field new capabilities to meet identified capability "gaps" through traditional or rapid acquisition processes.

- 2) Continuously modernize equipment to meet current and future capability needs through upgrade, replacement, recapitalization, refurbishment, and technology insertions.
- 3) Meet continuously evolving force requirements in the current operational environment by fielding and distributing capabilities in accordance with the Army Resource Priorities List and Army Force Generation model.

### **The Cornerstone of Army Modernization – The Brigade Combat Team Modernization Strategy**

In April 2009, Secretary of Defense Robert M. Gates provided guidance and directed the Army to “accelerate the initial increment of the program to spin out technology enhancements to all combat brigades” and noted the lack of a clear role for the Mine-Resistant, Ambush-Protected (MRAP) vehicle in the current vehicle programs. The Army was further directed to “cancel the vehicle component of the current Future Combat System (FCS) program, reevaluate the requirements, technology, and approach – and then re-launch the Army’s vehicle modernization program . . .”

Following the Secretary of Defense’s April 2009 decisions, the Army directed the U.S. Army Training and Doctrine Command (TRADOC) to develop recommendations to modernize our Brigade Combat Teams (BCTs) incrementally and to determine the operational requirements for a new Ground Combat Vehicle. In response, TRADOC established Task Force 120 (TF 120) which evaluated the Army’s short- and long-term modernization requirements to ensure proposed solutions mitigated the Army’s highest risk capability gaps. TF 120 delivered its recommendations to senior Army leaders in early September 2009, which focused on capability packages, Ground Combat Vehicle operational requirements, and BCT network integrated architecture. These recommendations form the basis for the incremental modernization of all the Army’s BCTs.

Subsequently, in November 2009, the Secretary of Defense approved the Army’s BCT Modernization Plan which includes the following elements:

- Modernizing the network over time to take advantage of technology upgrades, while simultaneously expanding it to cover ever increasing portions of the force;
- Incorporating MRAPs into our force;
- Rapidly developing and fielding a new Ground Combat Vehicle that meets the requirements of the 21<sup>st</sup> Century Army; and
- Incrementally fielding Capability Packages that best meet the needs of Soldiers and units as they train and then deploy.

### Army Network

Central to the Army's modernization efforts is an enhanced and interoperable communication network that gives the Army a decisive advantage across the spectrum of conflict. The Army Battle Command Network will improve our situational awareness and collaborative planning capabilities by sharing essential information from an integrated platform or a disconnected Soldier to their Command Post. Network modernization uses two primary transport programs which will incrementally move the Army to a single and expanding Army Battle Command Network: Warfighter Information Network-Tactical and Joint Tactical Radio System.

**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 will 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 60 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 Division 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 communications while the unit is on-the-move. Increment 2 was approved for a Milestone C Low Rate Initial Production decision in February 2010. Fielding to the Force is expected following its Initial Operational Test in the first quarter of Fiscal Year 2012.

Increment 3 capabilities bring the full networking 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 introduced under this increment brings even more robust communications, providing three tiers of communications that result in less reliance on overburdened 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 anti-jam protected satellite communications on the move.

The **Joint Tactical Radio System** (JTRS) is a Department of Defense (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. JTRS development is 85 percent complete. For the Army, JTRS will provide a tactical radio communications network for Infantry, Heavy, and Stryker Brigade Combat Teams 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.

## Incorporating MRAPs into our Force

In response to deadly Improvised Explosive Devices (IEDs) in Iraq and Afghanistan, the Nation made a tremendous investment in fielding MRAPs that have saved lives by providing significantly improved protection for our Soldiers. The Army is incorporating these vehicles throughout its unit formations. Additionally, we used the basic design of the MRAP vehicles as the foundation for the **MRAP All-Terrain Vehicle (M-ATV)**, modifying it for the mountainous terrain found in Afghanistan and other regions around the world. The MRAP Family of Vehicles provides the versatility our forces need to rapidly move around the battlefield, particularly in an IED environment, with the best protection we can provide.

## Developing a New Manned Ground Combat Vehicle

The **Ground Combat Vehicle** is the Army's next-generation Infantry Fighting Vehicle, combining lessons learned from the survivability of the MRAP vehicle, the tactical mobility of the Bradley Fighting Vehicle, and the operational mobility of the Stryker. The Army released a Request for Proposals (RFP) on February 25, 2010, for the Technology Development phase of the Ground Combat Vehicle effort. The first combat vehicle designed from the ground up to operate in an Improvised Explosive Device (IED) environment, the Ground Combat Vehicle will have enhanced mobility that will allow it to operate effectively in both urban and off-road environments. It will be designed to host the Army's network. And, it will have the capacity available to accept future upgrades incrementally as technologies mature and threats change. Because of the pace of change and the operational environment, the Army is pursuing a Ground Combat Vehicle program timeline that provides the first production vehicles in seven years.

## Capability Packages

Capability Packages provide the Army a regular, timely process to enable our deployable units with the latest materiel and non-materiel solutions based on the

evolving challenges of the operating environment. The best available capabilities will go to the Soldiers who need them most, based on the threats they are likely to face. Our incremental packaging approach will help ensure that we provide the best available technologies to upgrade our units as they prepare to deploy.

The **Increment 1 Early-Infantry Brigade Combat Team (E-IBCT)** completed the FY09 Limited User Test (LUT) in September 2009, and completed a successful Milestone C Low Rate Initial Production (LRIP) decision at the December 2009 Defense Acquisition Board (DAB) meeting. The Defense Acquisition Executive approved the initial LRIP procurement of one BCT set of Increment 1 systems. Follow-on DAB In-Progress Reviews are planned for April and December 2010 to assess continued development progress, supporting the procurement of 2nd and 3rd BCT sets. Additional technical and operational testing is planned for 2010 to support the December 2010 DAB decision. Technical Testing begins in April 2010 and culminates in a September 2010 LUT. The Army awarded the LRIP contract for the initial Brigade on February 24, 2010. Increment 1 systems included in the LRIP contract are: The Network Integration Kit, Class I Unmanned Aircraft System, Small Unmanned Ground Vehicle, Urban-Unattended Ground Sensors, and Tactical-Unattended Ground Sensors. The NLOS-LS completed the flight LUT in February 2010. The results of this LUT are expected in April 2010. The NLOS-LS will request a Path Forward decision at the DAB In-Progress Review in April 2010.

### **Additional Acquisition Programs**

The **Sniper Detection** or Counter-Sniper efforts are of significant importance to our deployed forces in harm's way, and we appreciate the support we have received from Congress. Of the \$50M, the Rapid Equipping Force will use \$15M to fill an Individual Gunshot Detection 10-Liner requirement for immediate Warfighter needs based on readily available commercial items to satisfy limited key capabilities. The Program Executive Office Soldier, Project Manager (PM) Soldier Sensors and Lasers (SSL), will use the remaining \$35M for evaluation, procurement, and sustainment of

more technically advanced product than the system earlier procured and fielded by the REF.

The Army's Science and Technology program plays a critical role in achieving our acquisition strategy by pursuing cutting edge, unprecedented technologies for both the current and future force. For example, the **Advanced Distributed Aperture System**, a Joint Capability Technology Demonstration (JCTD) led by the U.S. Special Operations Command (SOCOM) with the Army serving as the Technical Manager and using technologies developed by the Army S&T community, is demonstrating technologies that will provide helicopter pilots with capabilities for 360-degree situational awareness for low level and day/night mission flights. The JCTD concludes in the fourth quarter of FY10 with an operational utility assessment that will enable SOCOM to determine the best acquisition path forward.

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 26 operational HBCT equivalents and five strategic HBCT equivalents. 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. The modular HBCT force structure will be equipped with the two variant Abrams and Bradley fleet by the end of 2013. This modernization plan aligns compatible combat platforms with common modular formations.

**Stryker** has planned procurement of 3,953 vehicles with 3,149 having been accepted as of January 31, 2010. These vehicles support eight Stryker Brigade

Combat Teams (SBCT), with the eighth SBCT being fielded in FY11 to Ft. Bliss, Texas; a Stryker Theater Provided Equipment set supporting the Afghanistan theater; a strategic pool of ready-to-fight systems; Institutional Training Base needs; Test Articles; a Depot Repair Cycle Float Pool managed by the U.S. Army Materiel Command; and other operational requirements. Stryker vehicles have operated more than 24 million miles in combat while maintaining well above required operational readiness rates. 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 Army is currently supporting an effort to improve Stryker survivability by requesting approval to build and test prototype Stryker vehicles incorporating a Double V hull design. Pending independent validation, the Army may incorporate this design onto Stryker vehicles supporting the Afghanistan operation.

The **Paladin Integrated Management (PIM)** program is the Army's fire support modernization effort for the M109A6 Howitzer (Paladin) and the Field Artillery Ammunition Supply Vehicle (FAASV) platforms that support our HBCTs. The Paladin PIM addresses obsolescence and sustainment through the integration of Bradley components and Non-Line of Sight-Cannon (NLOS-C) technologies resulting in an upgraded firing platform. Commonality of key components, including the engine, transmission, final drives, and suspension will reduce Operations and Support costs as well as the logistics footprint of the HBCT.

Modernization of the Army's **Tactical Wheeled Vehicles (TWV)**, continues to be a critical step in providing the Soldier with the best possible protection, payload, and performance in each vehicle of the fleet. The overarching goal of our TWV strategy is to balance (planning, analyzing, coordinating, and executing) the quantity, quality, and sustainment of Army equipment throughout its life cycle to meet combat, training,

generating force, and homeland defense requirements with the appropriate capabilities. Finding the right balance and mix of TWVs requires the Army to assess and adjust investments continually. We will continue to use a combination of new procurement, recapitalization, and reset to achieve our strategic objective by addressing the readiness issues associated with shortages, proper mix, and age/usage in a cost effective manner. The Army will continue to take maximum advantage of existing platforms, making necessary improvements in both capability and reliability. All new vehicles will have scalable armor in the form of A-B Kits executed in accordance with our Long Term Protection Strategy.

At the heart of our modernization plans is the **Joint Light Tactical Vehicle** (JLTV). A joint program with the Marine Corps, JLTV is a family of vehicles with companion trailers capable of performing multiple mission roles that will replace the **High Mobility Multipurpose Wheeled Vehicle** (HMMWV) starting in 2014. The Army has leveraged depot recapitalization for our HMMWV fleet to sustain readiness and meet near-term requirements. We will continue to procure and field the **Family of Medium Tactical Vehicles** (FMTV) to replace vehicles in the medium fleet that are over 30 years old. Our FMTV investment strategy will provide a more sustainable fleet, capable of meeting the Army's future mission requirements. Recapitalization of our **Family of Heavy Tactical Vehicles** fleet will focus on variants of the aging Heavy Expanded Mobility Tactical Truck, the Palletized Load System, as well as the incorporation of MRAPs vehicles into our future force, as they are released from theater. As part of this effort, this investment strategy will also recognize the fiscal and operational realities inherent to the current operational environment. To do this the Army will find ways to manage its TWV fleet readiness in ways that are both creative as well as efficient. Additionally, the Army will move away from the pure-fleet unit-set-fielding prerogatives of the 1990s and consider more appropriate and efficient ARFORGEN-based operational models.

The Army has fielded over 400,000 **M4 carbines**, replacing M16s in all the Combat Brigades and Division headquarters. The smaller, more maneuverable weapon has been the overwhelming individual weapon of choice for our Soldiers in combat. Regardless of the successes we have seen in our small arms, we continue to pursue improvements in our individual weapons' capability. We are currently taking a dual approach to improve the current weapon, the M4, as we move forward with a new carbine requirement. The Project Manager (PM) released a market survey in January 2010, seeking the best industry has to offer for improvements to the current M4. The PM expects to release an RFP soon to compete the upgrade program. Additionally, the Army will conduct a full and open competition to address a new requirement for an individual carbine. Once the Joint Requirements Oversight Council approves the new requirement, the PM will initiate the competition with the release of a Request for Proposal for comments from industry. This is the first step in conducting the competition. The Army is working with the other Services in these programs to ensure their requirements are included in our process and they are always invited to participate in the programs' development and production.

The **Unmanned Aircraft Systems (UAS)** are a rapidly growing capability within the Army. For example, when Operation Iraqi Freedom (OIF) began in March 2003, there were only 3 systems (13 aircraft) deployed in support of that operation. Today, we have 337 systems (1,013 aircraft) in OIF and 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 UAS. It took us less than a year to fly the next 100,000 hours, and now we fly more than 220,000 hours each year. By May 2010, Army UAS will have flown one million flight hours, almost 90 percent of which were flown in support of combat operations.

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

Commander. The 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. The ER/MP UAS will use both Tactical Common Data Link and Satellite Communications data links. The program deployed a Quick Reaction Capability to OIF in July 2009 and will deploy another to OEF in summer 2010 in support of the surge. The Program of Record will field its First Unit Equipped in FY11.

The hand-launched and rucksack portable **Raven** Small Unmanned Aircraft System 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. In addition to the Army, the Raven is fielded to the U.S. Special Operations Command, the Marine Corps, the Air Force, and ARNG, providing support for Overseas Contingency Operations while also providing increased capabilities for domestic mission responsibilities as required. We have fielded 1,318 systems (3,954 aircraft), and there are 291 Raven Systems (873 aircraft) currently supporting Soldiers in Iraq and Afghanistan, with over 201,900 flight hours in OIF and 39,800 flight hours in OEF. The program is meeting all cost, schedule, and performance targets.

The **Shadow** Tactical Unmanned Aircraft System provides DoD and coalition partners with a high quality, reliable, and interoperable UAS. Currently, units are flying at an OPTEMPO of up to eight times what was originally envisioned for the system. While the OPTEMPO remains high, the accident rate has been reduced each year. The Marine Corps is partnered with the Army for purchase of Shadow systems, support equipment, and performance based logistics services. Through this approach, economies of scale provide efficiencies for cost, commonality, and Joint operations. Currently, 75 systems (300 aircraft) have been delivered and fielded to the Army and nine systems (36 aircraft) to the Marine Corps. The readiness rate of the Shadow

system averages above 98 percent. As of February 2010, the total hours flown by Shadow in support of theater operations were 436,885 hours, out of a total program history of 479,806 hours flown. More than 91 percent of all Shadow hours flown since 2,000 have been in support of theater operations.

The **Class I 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 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 UAS 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. Currently, 15 systems (29 aircraft) are in use in OIF, with over 199 flight hours in 407 sorties. The Class I block 0 UAS, a gMAV variant, is in development and testing for the E-IBCT as part of our Capability Packages.

The **Persistent Threat Detection System** 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.

The **Enhanced Medium Altitude Reconnaissance and Surveillance System** (EMARSS) evolved from the Aerial Common Sensor (ACS) requirement set. The EMARSS is a manned multi-intelligence airborne ISR system that provides a persistent capability to detect, locate, classify/identify, and track surface targets in day/night, near-all-weather conditions with a high degree of timeliness and accuracy.

The EMARSS will consist of an Electro-optic/Infrared (EO/IR) Full Motion Video sensor, a Communications Intelligence collection system, an Aerial Precision Guidance system, line-of-sight tactical and beyond line-of-sight communications suites, and a self-protection suite. This combination of attributes provides the ground tactical commander an assured near-real-time operational view of the battlespace enabling tactical ground forces to operate at their highest potential.

### **Conclusion**

Army acquisition 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. Mr. Chairman, Congressman Young, and distinguished Members of this Subcommittee – I look forward to working with you to ensure that our Soldiers are equipped for mission success – today and in the future.