



Torchbearer National Security Report



Resetting the Force:

The Equipment Challenge



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Resetting the force—preparing redeployed Soldiers and their equipment for future missions—reflects how we care for our people and prepare units for upcoming training and deployments while positioning the Army to be more responsive to emerging threats and contingencies. Amidst the constant demands of combat and stability operations, the Army’s equipment is aging far more rapidly than projected. Due to high operational tempos, a harsh environment and limited depot maintenance available in theater, ground and air vehicles in Operations Enduring Freedom and Iraqi Freedom are experiencing usage five to six times greater than expected. Future unit readiness is at risk.

To mitigate risk, the Army is taking a series of steps to reverse the stress of combat on equipment as forces redeploy. The program, called Reset, consists not only of repairing and modernizing equipment, replacing battle losses and equipment which are uneconomical to repair, and recapitalizing (to include implementing lessons learned) but also reorganizing into and training on the new brigade-centric modular formations. In this latest edition of AUSA’s signature Torchbearer National Security Report series, we focus our examination on Equipment Reset and the resources it will take to complete it.

We hope you find this report a useful resource and that you will continue to look to AUSA for thoughtful, credible analysis of contemporary national security issues.

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Executive Summary

Resetting the force takes time and funds.

Dr. David S. C. Chu, Under Secretary of Defense (Personnel and Readiness)
in testimony before the Senate Armed Services Committee, 30 June 2005

Major combat and stability operations in Afghanistan and Iraq are placing tremendous demands on Soldiers and their equipment. Over the past three years (2003–2005), the Army has deployed more than 40 percent of its equipment to Operations Enduring Freedom (OEF) and Iraqi Freedom (OIF). As a result, the Army needs to reset those units **by preparing Soldiers and their equipment for future missions**. As Army units return from deployments, they face significant challenges in rebuilding their combat power. This is not new in America's history. What is significant, however, is the magnitude and length of current operations. The increased operating tempo combined with an already aging fleet and significant combat losses challenge the Army's ability to sustain operational availability for its systems. **The Reset program is designed to reverse the effects of combat stress on the Army's equipment.**

The Army resets units forward to the new modular formations—not back to their legacy designs. Reset is not just equipment-focused; it is:

- reorganizing returning units into modular unit designs;
- retraining essential tasks to incorporate lessons learned from OEF and OIF;
- providing considerable training and professional development for Soldiers and leaders;
- adjusting prepositioned stocks of ammunition and equipment to support the force; and
- bringing unit readiness back up to Army standards.

This Torchbearer Report focuses primarily on the last aspect while outlining a future reset challenge involving prepositioned stocks.

Despite usage levels five to six times above peacetime expectations and in the midst of an extremely harsh environment, equipment readiness in theater remains high, above the peacetime goals of 90 percent for ground equipment and 75 percent for aviation. **However, this high in-theater equipment readiness comes with a price—in this case both monetary and in terms of impact on the remainder of the Army.** As Army maintainers correctly emphasize in-theater readiness, Army Materiel Command is working to ensure repair parts availability for the entire force worldwide, especially for units preparing to deploy who undergo accelerated preparatory training prior to deploying. The mission many of these units face in fighting insurgents in Afghanistan and Iraq is different from that for which the units were initially designed, equipped and trained.

Reset, then, comprises a series of actions to restore units to a desired level of combat capability commensurate with mission requirements and availability of resources:

- replacing battle losses and washed out equipment (damaged to the degree that repair is not economical);
- recapitalizing equipment that needs extensive refurbishment, implementing lessons learned where sensible/affordable; and
- repairing existing equipment in accordance with applicable Army maintenance standards.



The express purpose of Equipment Reset is to bring unit equipment to combat-ready condition, either for the unit's next rotation in support of current operations or for other, unknown future contingencies. The 1st Cavalry Division, for example, having returned in 2005 from a year-long rotation in Iraq, is resetting itself in anticipation of another deployment, perhaps as soon as 2006, and/or to be available for an unexpected crisis/natural disaster. All of its tanks and most of its infantry fighting vehicles are in the maintenance shop after operating an average of 5,000 miles per vehicle through dust and heat.

[In 2003, the average age of the Abrams tank fleet was more than 14 years. These tanks have a design life of 20 years, with expectation of operating slightly more than 800 miles a year. In OIF, in one year, these tanks are being driven in excess of 5,000 miles, often on hard surfaces as opposed to cross-country, for which they were designed. Building on a RAND study, the Army conducted analysis in 2004 and determined that the equipment in Iraq was aging much faster than

would be expected. **The analysis shows that the effective increase in aging of vehicles deployed to the theater for one calendar year resulted in five years of wear and tear.** The resulting stress decreases the remaining useful life of the vehicle.]

In addition to the reset of equipment as it returns with units from OEF/OIF, the Army must address the impact of these operations on prepositioned stocks and the equipment that has remained in theater. The Army's prepositioned stocks from Southwest Asia assets, afloat assets and European assets have been employed in the current conflict. These assets are maintained in theater and are removed from theater to higher-level maintenance only when required. The equipment will require a significant amount of reset following the current conflict; until that equipment is reset, the nation will be accepting risk in its ability to deploy forces in the time required.

When the 4th Infantry Division returned from Iraq in 2004, it needed to replace, repair or refurbish 71,000 pieces of equipment. But it also had to absorb thousands of newly assigned Soldiers (many directly out of basic/advanced individual training) and to reorganize the entire division into a modular force, to include manning and equipping a new 4th Brigade. While supplemental appropriations have been critical in fixing current challenges and in addressing some of the lifecycle issues that have resulted, additional support is necessary. **To complete the Reset program, the Army will require increased funding above the baseline budget for at least two years after hostilities have ceased.**

Therefore, Congress must:

- fund the Department of Defense (DoD) at an amount approximating 4 percent of the Gross Domestic Product; and
- increase the Army's share of the DoD budget to at least 28 percent to meet Army requirements.



Resetting the Force: The Equipment Challenge

*[If operations in Afghanistan and Iraq ended today]
it [would] take us at least two years to reset the force. . . .
We're using the equipment three to 10 times more than expected.*

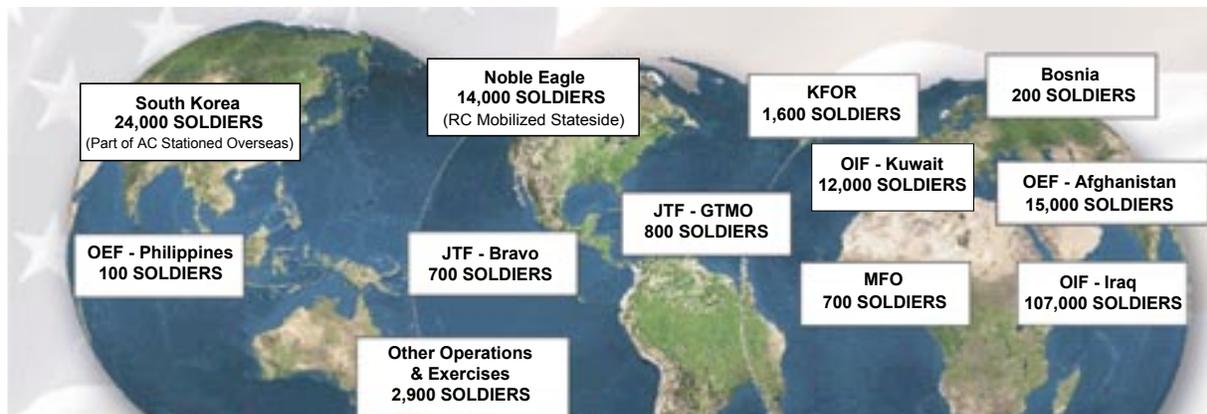
General Peter J. Schoomaker, Chief of Staff, U.S. Army
in testimony before the Senate Armed Services Committee, 30 June 2005

Introduction

The challenge facing the U.S. Army (and other services) is daunting: to maintain the operational readiness necessary to win the Global War on Terrorism (GWOT) while transforming capabilities to defeat any future threat to the nation. Fundamental to the Army's

ability to meet future threats is the absolute requirement to rapidly return operational units to an effective level of readiness upon their return from operational employment. Over the past three years (2003–2005), the Army has deployed more than 40 percent of its

Army Global Commitments



AC STATIONED OVERSEAS - 111,000
AC STATIONED STATESIDE - 374,000

Army Personnel Strength			
Component		RC Authorized for Mobilization / On Current Orders	
Active (AC)	485,000	Active (AC)	N/A
Reserve (RC)		Reserve (RC)	
Army Reserve	197,000	Army Reserve	39,000
Army National Guard	331,000	Army National Guard	82,000
	1,013,000		

GTMO: Guantanamo
JTF: Joint Task Force
KFOR: Forces of Kosovo

OEF: Operation Enduring Freedom
OIF: Operation Iraqi Freedom
MFO: Multinational Force & Observers

251,000* Soldiers Overseas in 120 Countries
*Includes AC Stationed Overseas AS OF 6 SEP 05

Source: Headquarters Department of the Army



equipment to Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF). The operational tempo (OPTEMPO) and consequent wear on the Army's deployed equipment greatly exceeds that experienced in the Army's peacetime training environment. **The increased OPTEMPO combined with an already aging fleet and significant combat losses challenge the Army's ability to sustain operational availability for its systems.** How does the Army meet this challenge? Can the Army sustain the readiness of its systems?

Background

Major combat and stability operations in Afghanistan and Iraq continue to place tremendous demands on Soldiers and their equipment. As a result, the Army needs to reset those units by preparing Soldiers and their equipment for future missions. The Army resets units forward to the new modular formations—not back to their legacy designs. **Reset is not just equipment-focused;** it is:

- reorganizing returning units into modular unit designs;
- retraining essential tasks to incorporate lessons learned from OEF and OIF;
- providing considerable training and professional development for Soldiers and leaders;
- adjusting prepositioned stocks of ammunition and equipment to support the force; and, last but not least,
- bringing unit readiness back up to Army standards.

This Torchbearer Report focuses primarily on the last aspect—bringing unit readiness back up to Army standards—while outlining a future reset challenge involving prepositioned stocks. (For information on reorganizing units into modular unit designs and force



stabilization, see Torchbearer National Security Report “The U.S. Army . . . A Modular Force for the 21st Century,” March 2005.)

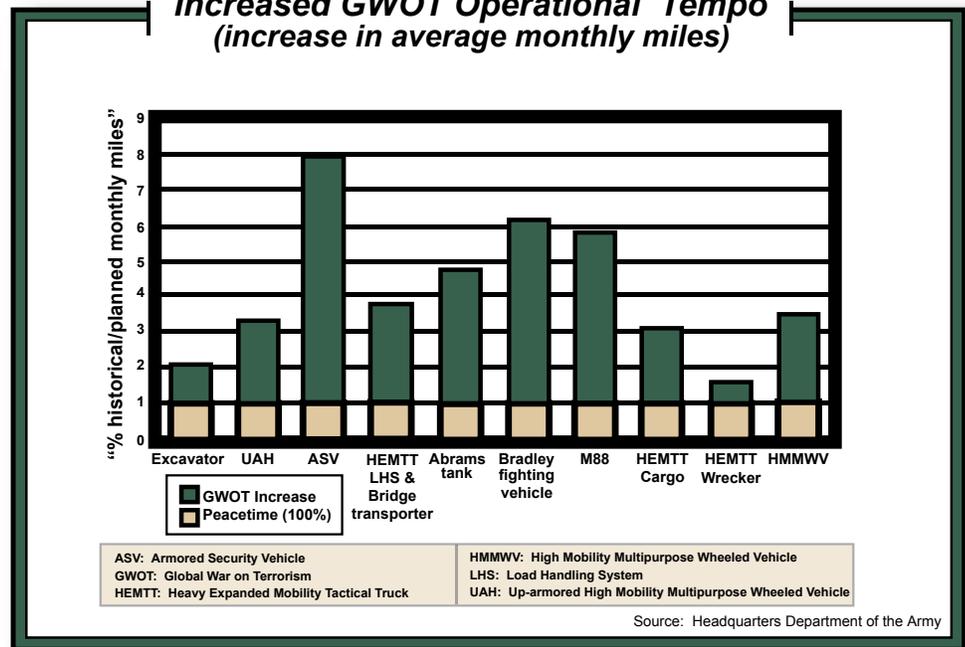
As Army units return from deployments, they face significant challenges in rebuilding their combat power. The Army has undergone this process many times in its history—most recently following Operation Desert Storm (ODS) in the 1990s. However, the magnitude of the current process is historic in proportion. The length of current operations is an additional factor that has taxed the Army. Although the buildup to ODS took six months, the actual engagement lasted less than five days; the majority of Army units were deployed for less than nine months. The number of units now deployed, along with the current pace of operations and the harsh conditions in which they are operating, has placed enormous stress on both people and equipment. **The Equipment Reset program is designed to reverse the effects of combat stress on the Army's equipment.**



Current Operations

Some 15–30 percent of the Army’s equipment is in Iraq today. This equipment is experiencing operating tempos five to six times greater than that of peacetime levels and in a harsh environment that includes both extreme temperatures and fine sand that works into all equipment subcomponents. The pace of operations allows for only sporadic vehicle maintenance under less than desirable conditions. Improvised explosive devices (IEDs) and extensive use of off-road vehicles in an urban environment have inflicted damage to vehicles far beyond that experienced by the Army in previous contingencies.

**Increased GWOT Operational Tempo
(increase in average monthly miles)**



Quantities of Army Equipment Deployed in Fiscal Year 2005

Commodity	Number of Vehicles/Aircraft*	Fleet Size (PB05)	Percentage of Fleet in Use
Wheeled Vehicles			
Light Tactical Vehicles	36,665	116,979	31
Medium Tactical Vehicles	6,498	71,163	9
Heavy Tactical Vehicles	5,537	25,041	22
Totals	48,700	213,183	23
Combat Vehicles			
M1 Abrams Fleet	819	4,392	19
M2/M3 Bradley Fighting Vehicle Fleet	884	3,719	24
M113 Armored Personnel Carrier	1,287	13,387	10
Stryker	311	930	33
Totals	3,301	22,428	15
Aviation			
Light Reconnaissance	96	352	27
Utility	238	1,619	15
Cargo	66	459	14
Attack	86	713	12
Totals	486	3,143	15

*Reflects vehicle and aircraft deployments in Operation Iraqi Freedom (OIF) as of September 2004.

PB05: President’s Budget Fiscal Year 2005

Source: Headquarters Department of the Army

Despite usage levels five to six times above peacetime expectations and in the midst of the extremely harsh environment, equipment readiness in theater remains high, above the peacetime goals of 90 percent for ground equipment and 75 percent for aviation. To accomplish this, the Army has increased stockage levels of critical spare parts and prioritized these parts and repair efforts in Southwest Asia. Army Materiel Command (AMC) has established repair facilities in theater to maintain equipment, returning systems quickly to units after damage has been repaired. The Stryker



forward repair activity, for example, run by General Dynamics Land Systems under the direction of AMC's Army Field Support Battalion-Qatar (AFSB-Qatar), recently presented the first two refurbished Strykers to Army inspectors. Lieutenant Colonel Jon Buonerba, commander of AFSB-Qatar, stated, "If we can repair these [battle-damaged Strykers] and get them back in the fight, we'll save the Army lots of money and help sustain the operational readiness of the Stryker force."

However, this high in-theater equipment readiness comes with a price—in this case both monetary and in terms of impact on the remainder of the Army. As Army maintainers correctly emphasize in-theater readiness, Army Materiel Command is working to ensure repair parts availability for the entire force worldwide, especially for units preparing to deploy who undergo accelerated preparatory training prior to deploying. The mission many of these units face in fighting insurgents in Iraq and Afghanistan is different from that for which the units were initially designed, equipped and trained.



Impacts to individual fleets vary dependent upon the conditions for which they were built versus the environment in which they are now operating. A prime example of this is the High-Mobility Multipurpose Wheeled Vehicle (HMMWV), now equipped with additional armor plating and air conditioning. More

Impact of Current Operations on Army Equipment Fleets

	% of Army fleet deployed to OIF/OEF	Ratio OPTEMPO to peacetime level	Readiness in theater	Readiness remainder of Army
Apache	16%	3x	77%	below 60%
Black Hawk	20%	2x	77%	below 50%
Abrams	14%	4x	90%	below 80%
Bradley	15%	5x	89%	below 80%
HEMTT	15%	5x	91%	85%

The reset of these aircraft is being conducted to counteract the effects of the environment and higher OPTEMPO in theater, but the program is both time- and part-intensive.

To begin to counteract this stress, the Army is resetting Abrams tanks both at home station and in depots. The Army also increased the Abrams SEP recap by 60 vehicles in FY05, with possible increases in following years for both the AIM and SEP variances.

The Army's requirements for Bradley vehicles have substantively increased as the Army transforms to a modular force. In FY05 the Army began to recap more than 1,000 vehicles to offset this stress and increased requirements.

The Army intends to procure more than 600 HEMTTs and recap more than 500 to meet modularity demands and to counteract the effect of stress on these vehicles.

AIM: M1A1 Abrams Integrated Management
 SEP: M1A2 Abrams System Enhancement Program
 OPTEMPO: Operational Tempo
 OIF: Operation Iraqi Freedom

OEF: Operation Enduring Freedom
 HEMTT: Heavy Expanded Mobility Tactical Truck
 Recap: Recapitalization

Source: Headquarters Department of the Army



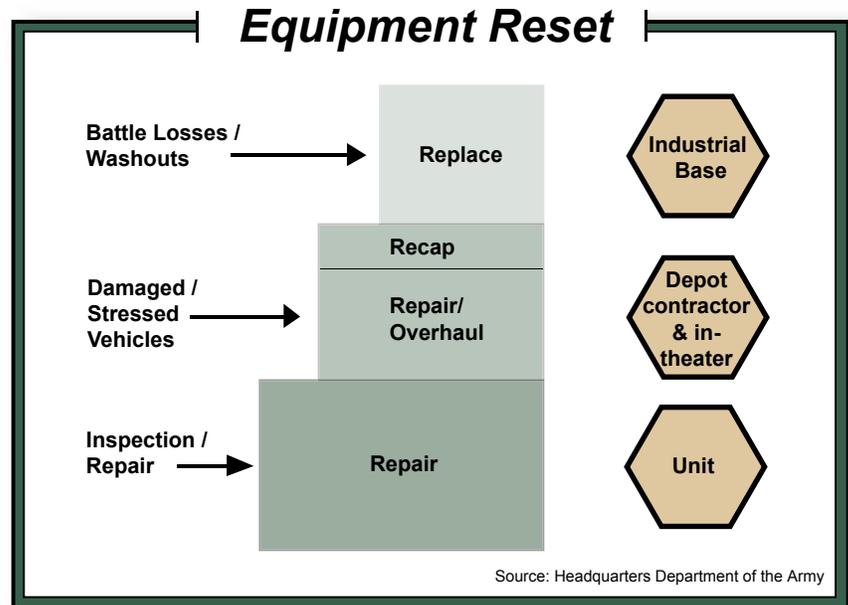
than 20 percent of the HMMWV fleet (36,000+) is deployed in OIF. The vehicle was originally designed to last 15 years at peacetime usage levels; the average age of the fleet in OIF in October 2004 was 13 years. Many of the HMMWVs are starting their third year in OIF at five times the normal rate of usage. Most of the deployed HMMWVs have add-on armor or are up-armored, putting additional weight—and therefore additional stress—on the vehicles.

The Army's comprehensive Reset strategy is addressing the impacts of stress on the vehicle fleet. Part of this comprehensive strategy includes Army plans to procure new vehicles and recapitalize 11,000 HMMWVs in FY 2006, providing a heavier suspension and drive train to withstand the requirements of use in theater. **The extraordinary and unprecedented level of current commitments over such a short time requires an equally extraordinary response to ensure the Army maintains its capability and readiness to respond to national security requirements.**

Equipment Reset—What is It?

Reset comprises a series of actions to restore units to a desired level of combat capability commensurate with mission requirements and availability of resources:

- **replacing** battle losses and washed out equipment (damaged to the degree that repair is not economical);
- **recapitalizing** equipment that needs extensive refurbishment, implementing lessons learned where sensible/affordable; and
- **repairing** existing equipment in accordance with applicable Army maintenance standards.



The express purpose of Reset is to bring unit equipment to combat-ready condition, either for the unit's next rotation in support of current operations or for other, unknown future contingencies. The 1st Cavalry Division, for example, having returned in 2005 from a year-long rotation in Iraq, is resetting itself in anticipation of another deployment, perhaps as soon as 2006, and/or to be available for an unexpected crisis. All of its tanks and most of its infantry fighting vehicles are in the maintenance shop after operating an average of 5,000 miles per vehicle through dust and heat.

Replacement of Losses

The Army is replacing more than 800 major systems in FY 2005. Equipment to be replaced—either lost in battle or washed out—ranges from the Apache helicopter to ground combat vehicles such as Abrams tanks and Bradley fighting vehicles, to wheeled vehicles such as the Stryker and tactical wheeled vehicles. The cost of these replacements is more than \$600 million. As the Army replaces these vehicles, it is buying more modernized equipment, capable of performing on today's and tomorrow's battlefields.



Significant Losses

Appropriation	Quantity	Major items in category
APA	18	13 Apaches, 5 Black Hawks
MIPA	10	10 Improved Target Acquisition Systems (ITAS)
OPA	719	356 trucks, 2 Fox Recon Vehicles, 278 Water Point Systems, 83 other
WTCV	60	38 Bradleys, 12 M113 FOV, 2 FAASV, 2 AVLB, 6 Stryker
Total	807	

Significant losses replaced through funding in the Fiscal Year 2005 supplemental

APA: Army Prepositioned Afloat	FOV: Family of Vehicles
MIPA: Missile Procurement Army	FAASV: Field Artillery Ammunition Supply Vehicle
OPA: Other Procurement Army	AVLB: Armored Vehicle Launched Bridge
WTCV: Weapons and Tracked Combat Vehicles	

Source: Headquarters Department of the Army

In addition to these replaceable losses, the Army has experienced other losses that are irreplaceable. A prime example of this is the OH-58D Kiowa Warrior scout helicopter. The Army has lost 27 OH-58Ds, and no production line is currently in operation to replace them. This, and losses of other systems, means that the Army will accept risk in its equipment fleets until a new generation of equipment is fielded to make up these losses. The OH-58D will be replaced by the Armed Reconnaissance Helicopter (ARH), which is scheduled to begin fielding in FY 2007. Until that time, the existing fleet will fly additional hours to ensure the Army's missions are executed.

Vehicle safety improvements have decreased casualties, and IED detection equipment has reduced damage to vehicles. Unfortunately, future losses will still be experienced. Recently, the Government Accountability Office (GAO) recommended that Congress consider approval of procurement funding for anticipated losses before they occur. The reason for the recommendation is that the supplemental appropriations,

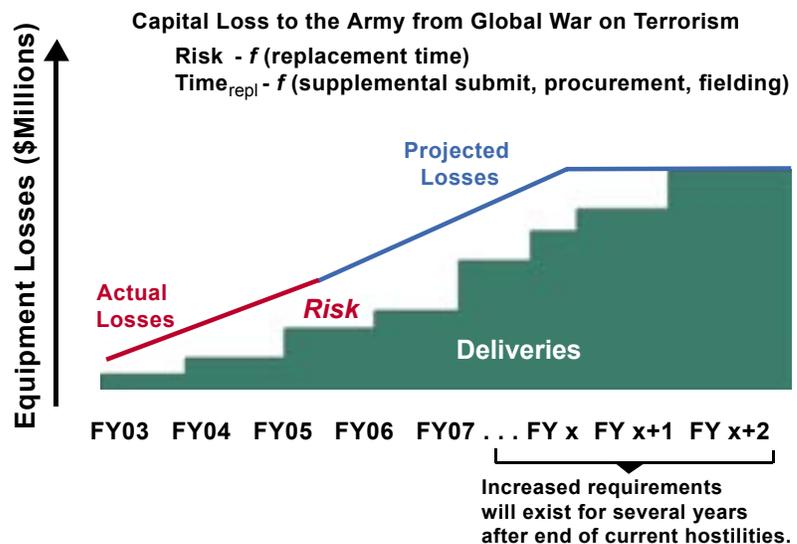
which pay for vehicles lost in combat, take time for approval—valuable time lost when trying to replace critical equipment.

These losses of major Army equipment make it all the more important that Army procurement programs remain fully funded and on track. Congress appropriated funds in the Defense Authorization Acts of FY 2003, FY 2004 and

FY 2005 to buy critical systems in use today. These appropriated funds allowed the Army to accelerate existing programs to replace equipment losses.

It will be several years after the end of hostilities in OEF and OIF before all Army losses are replaced. Because the Army does not currently receive funding until after losses have occurred, a bow wave of

Replacing Equipment



Source: Headquarters Department of the Army



requirements develops before the next supplemental appropriation is requested. This equates to increased risk to the Army in these equipment fleets. **Base program funding does not mitigate this risk; base funding is already being applied against current equipment shortages.**

Recapitalization—Preserving the Life of Current Fleets

Recapitalization (Recap) is the Army’s long-term investment strategy to sustain the equipment readiness of the Army. The Army initiated Recap programs in 2002 for 17 critical Current Force systems. [Note: The Army originally planned to recapitalize 26 systems, but to reduce costs it narrowed the list down to 17 key systems.] These aging systems would reach their half life (average fleet age over one half of the design life) by 2010. By investing in intensive rebuild and upgrade programs, enhancing life expectancy and inserting technology, the Army can expect these fleets to provide needed capabilities until a future system of vehicles is developed and acquired. The main reasons for implementing Recap were decreasing readiness



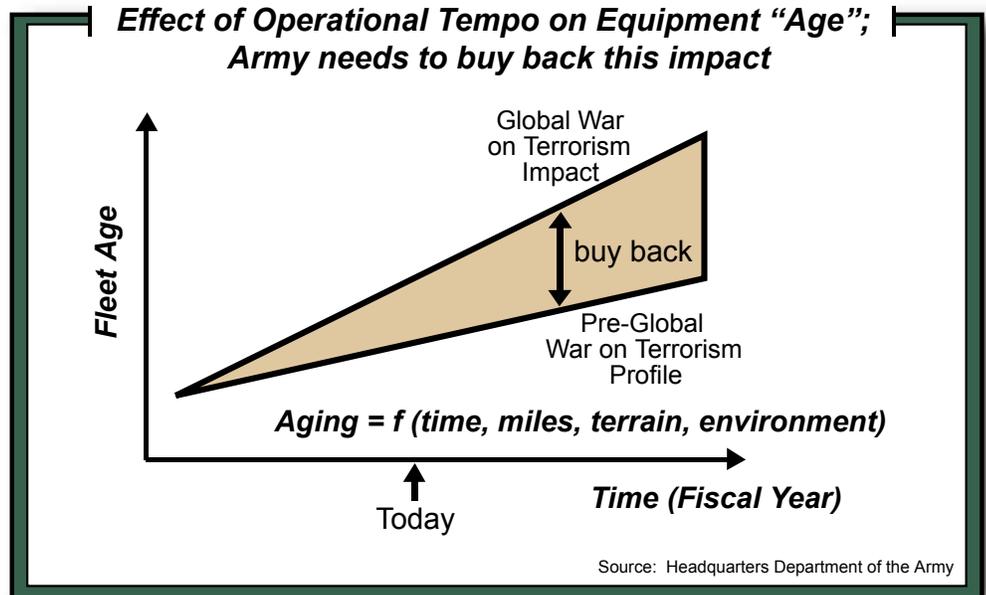
and increased operations and support (O&S) costs as vehicles age, and the need to apply modernization to fleets to ensure that weapon systems remain capable of defeating any adversary.

Specifically, Recap is the rebuild and/or systemic upgrade of currently fielded systems to ensure operational readiness and a zero time/zero miles status. Objectives include extending service life, reducing O&S costs, improving system reliability and enhancing capability. Recap is also conducted to account for damage/stress on vehicles due to the higher OPTEMPO and harsh operating environment in the GWOT. Recap can be subdivided into **rebuild programs**, wherein the vehicle is returned to like-new condition but with no enhancement of capability, and **upgrade programs**, wherein technology and lessons learned are inserted and the vehicle is returned to better than new condition. Recap occurs at the national level of maintenance and is done either in an AMC depot/arsenal, by contractor (usually the original equipment manufacturer, or OEM) or by a partnership of the two. Recap is managed by Program Executive Officers (PEOs)/Program Managers (PMs) in coordination with their AMC partners in the Life Cycle Management Commands (LCMCs).

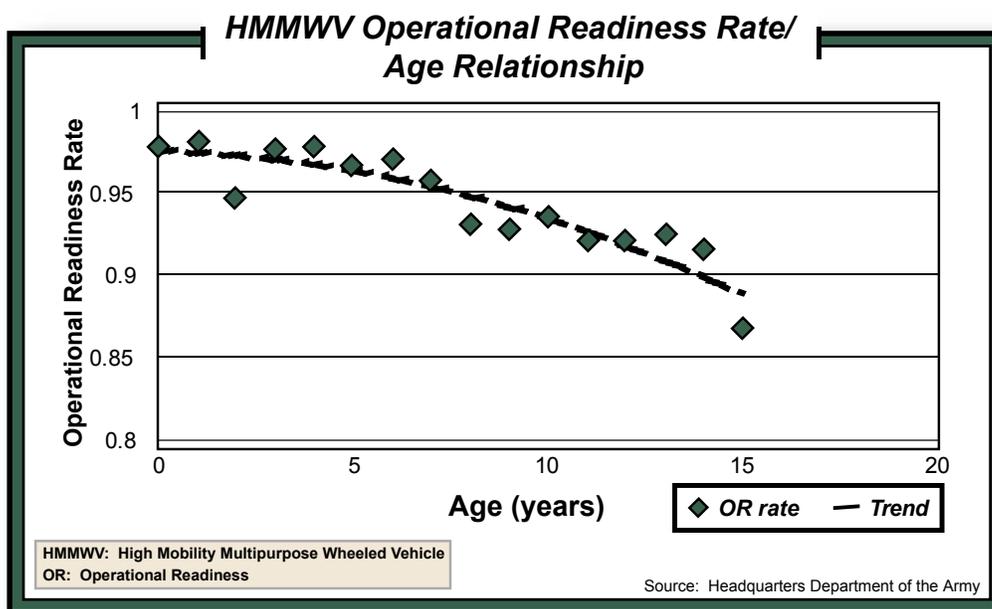




In 2003, the average age of the Abrams tank fleet was more than 14 years. These tanks have a design life of 20 years, with expectation of operating slightly more than 800 miles a year. In OIF, in one year, these tanks are being driven in excess of 5,000 miles, often on hard surfaces as opposed to cross-country, for which they were designed. A recent RAND study detailed the effect of age on parts failure in equipment fleets, determining what types of components had the largest failure rate increases as the equipment got older. Using this work, the Army conducted analysis in 2004 and determined that the equipment in Iraq was aging much faster than would be expected. **The analysis shows that the effective increase in aging of vehicles deployed to the theater for one year resulted in five years of wear and tear.**



The resulting stress decreases the remaining useful life of the vehicle. The Army has designed, through lessons learned, a national-level Reset program for units returning in FY 2006 to ensure returning combat vehicles are restored. Unfortunately, this plan is being implemented after dozens of tank and mechanized infantry battalions have deployed and returned without going through this level of repair. To restore the useful life of the fleet and to counter the effect for those that have already returned, the Army has implemented increases in Recap programs.



A prime example of an upgrade program is the Army's strategy for its light tactical wheeled vehicles. HMMWVs designed in the early 1980s are rebuilt, enhancing the power-train and suspension



and installing safety items such as occupant restraints and intercom systems. The upgrades allow the vehicle to carry the weight of add-on armor, protecting the occupants but not quickly wearing out the vehicle. These vehicles will be capable of having armor bolted on when deployed and removed when not needed, further decreasing the stress over time and ensuring a longer-lasting, more capable system for Soldiers.

Additional upgrades include conversion of the M2 Bradley to the A3 model, incorporating the commander's independent thermal viewer, a subcomponent identified by returning units as a critical enabler when fighting in urban combat; conversion of older M1A2 Abrams tanks to system enhancement program (SEP) tanks; upgrade of the heavy expanded mobility tactical truck (HEMTT) to the HEMTT Load Handling System (LHS); and upgrade of the M88A1 recovery vehicle to the A2 Hercules configuration, which allows the vehicle to recover the Army's heavier combat vehicles.

Repair of Equipment

Repair is conducted at both the field and national levels, depending on the severity of damage to the equipment. As units redeploy from the theater, the majority of equipment in need of repair is shipped to their home station, while badly damaged/worn equipment is shipped straight to the Army's organic depots, run by AMC, or to contractor facilities, often those of the original equipment manufacturer.

Field Reset is defined as work performed to correct equipment faults within the field level of maintenance, i.e., work done by Soldier mechanics at what is known today as organizational (ORG) or direct support (DS) maintenance, as laid out in Technical Manual Maintenance Allocation Charts for their echelon of maintenance. Field-level reset work is executed by the major Army commands

From Operation Desert Storm (ODS), the Army learned important lessons on the impact of the Iraqi desert on Army equipment. These lessons, codified in Army technical bulletins, are known collectively as Delayed Desert Damage (3D) and Aviation Special Technical Inspection and Repair (STIR). In retrospect, the length of ODS and the pace of operations pale in comparison to Operation Iraqi Freedom. Though 3D provides the initial steps to the current Reset effort, the Army has determined slightly different efforts are needed because of the high usage and the timeframe of current deployments. In Fiscal Year 2003 Army Materiel Command (AMC) conducted a series of inspections in theater on equipment preparing to redeploy. From these inspections, planning factors were developed on the percentage of equipment fleets that required depot-level repair due to the extent of damage. As FY 2005 Reset progressed, certain fleets were identified as requiring additional effort. These pieces of equipment are included in the Army's National Reset Program, administered and conducted by AMC.



(MACOMs), and is done with Soldier labor, augmented by contractor labor as required. **Ideally, this work is performed on or near the installation where the equipment is stationed.** The scope of work at this level involves bringing a piece of equipment back to Technical Manual 10/20 standards, eliminating the effects of delayed desert damage (3D), and performing required services.

National Reset is defined as sustainment maintenance work performed to correct equipment faults that are above field maintenance (that is, above ORG and DS), as laid out in Technical Manual Maintenance Allocation Charts. National Reset, orchestrated by AMC, is performed to a national standard that AMC is responsible for defining. It could be done in an AMC facility, by contractor, by installation directorate of logistics (DOL) maintenance activities, or by any combination of the three. It is conducted in depots, arsenals, on or near installations where the equipment is stationed or, in some instances, at in-theater repair activities.

The AMC Life Cycle Management Commands develop strategies for National Reset in conjunction with their PEO/PM partners and the Installation Management Agency (IMA) (for work done by DOLs). National Reset is also conducted on pieces of equipment that exceed Field Reset capability because of the quantity of work to be performed. Certain types of equipment, such as helicopters, radars, communications security equipment and other complex gear, due to their inherent complexity, will be reset only at the National level.

Aviation Reset

Aviation Reset is conducted at multiple locations across the United States. Aviation Reset implements lessons learned from ODS (when the Special Aviation Technical Inspection and Repair program was developed), normal Army phase maintenance procedures and lessons learned from the current conflict. U.S. Army Aviation and Missile Command (AMCOM), in conjunction with PEO Aviation, plans and executes the Aviation Reset program.

Aviation sustainment also includes Preset, or the preparation of aircraft before going to Iraq. Preset includes:





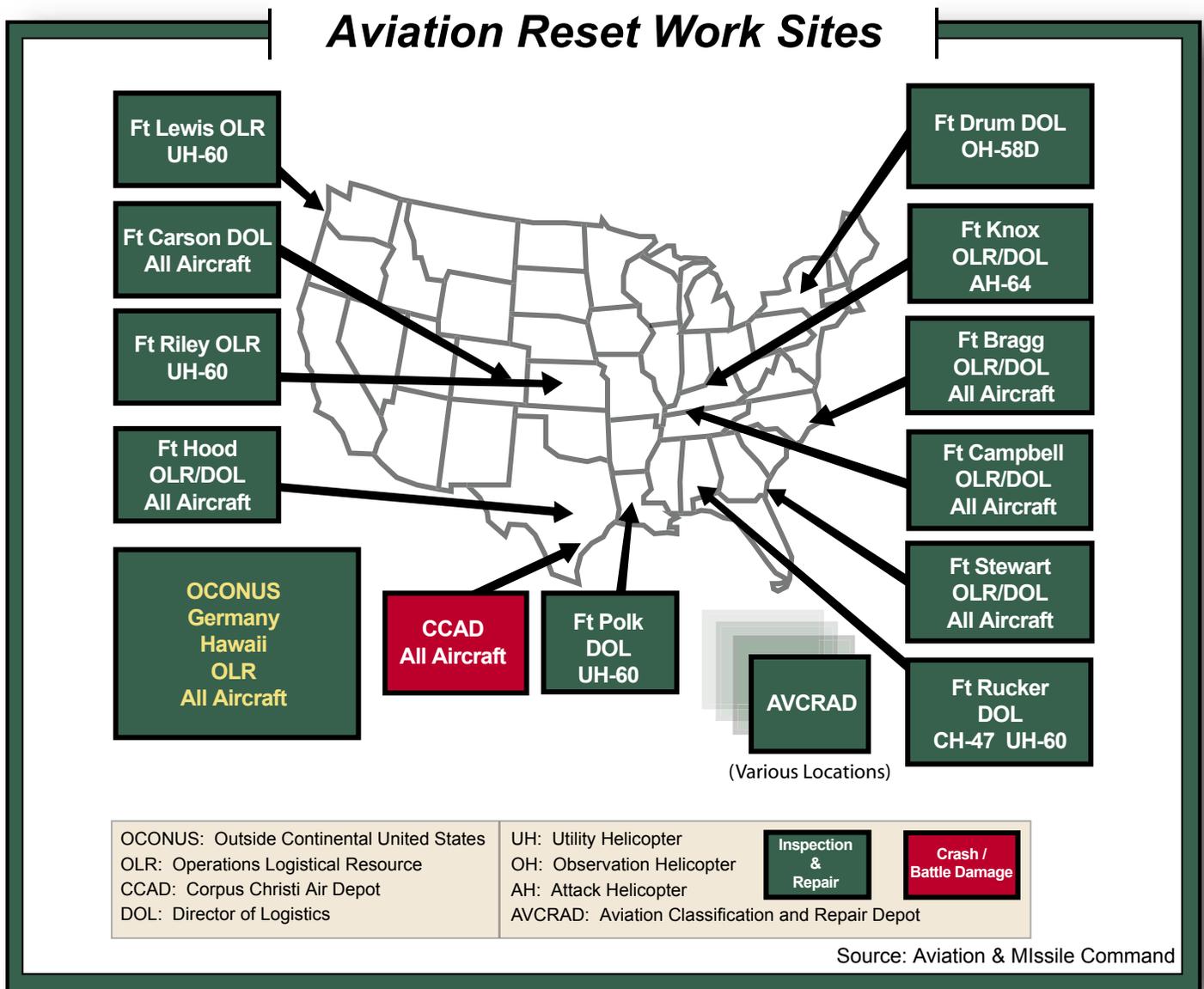
- technology insertions/Mission Equipment Packages (MEPs);
- Standard Modification Work Orders (MWOs);
- Enhanced Desert Maintenance (EDM) kits; and
- new equipment fielding.

Preset ensures the operation of aviation units in Iraq with current safety and protection devices, and reduces the failure rate of aircraft by the installation

of equipment, such as special filters, that will decrease damage from the environmental conditions.

Combat Vehicle Reset

The Army (PM Ground Combat Systems, in coordination with Tank-automotive and Armaments Command, or TACOM), has redefined the Reset strategy used for heavy combat (tracked) vehicles returning from





OEF/OIF. In previous years it sent this equipment to depot if inspections in theater identified faults that could be repaired only at the depot level. Initial estimates from inspections had indicated that this should be approximately 15 percent of the deployed vehicles. The remaining equipment was returned to units' home stations, where needed repairs could be executed at the field level. In FY 2004, 4th Infantry Division returned to Fort Hood, Texas, with 118 M1A2 Abrams SEP tanks, five of which were sent to Anniston Army Depot, Alabama, for repair. The remainder were sent to the Lima, Ohio, tank plant for the installation of side armor. [Note: The application of this armor was planned and programmed in the Army budget and was not conducted for Reset specifically, though the use of Lima facilities was exploited to assist in the Reset process]. As the equipment was prepared for the side-armor installation the turrets were removed—a capability Fort Hood does not possess—and damage was identified that would not have been discovered at Fort Hood. This damage was concentrated on the digital electrical components; sand had infiltrated many of the components, as it does on advanced helicopters, and would have caused failure at a later date had it not been discovered.

Similar discoveries were made on the M2A3 Bradley fighting vehicles, the Paladin self-propelled howitzer, the Field Artillery Ammunition Supply Vehicle (FAASV) and the M113 personnel carrier. The PM, the OEM and TACOM devised a strategy to ensure the reset of these systems in FY 2006, i.e., to repair the higher level of damage that was discovered.

The establishment of a Reset policy with national maintenance standards ensures:

- common understanding of terms of reference, responsibilities and roles in this critical effort;
- standard methodology for allocating funding and for determining outputs;
- unity of command and effort;
- efficiency and effectiveness;
- execution to a common standard of maintenance readiness;
- capability for the Army to prioritize by concentrating focus and effort;
- definitive linkage to lifecycle management and costing; and
- accountability for performance.





Additional Reset Concerns

In addition to the reset of equipment as it returns with units from OEF and OIF, the Army must address the impact of these operations on prepositioned stocks and the equipment that has remained in theater.

To provide the most capable equipment to deployed Soldiers, the Army has kept in theater every vehicle that has had armor applied to it. These vehicles will remain in theater, some for a third year. Many of them will require significant levels of maintenance following the end of hostilities; some may require replacement before that because of increased wear and tear.

The Army's prepositioned stocks from Southwest Asia assets, afloat assets and European assets have been employed in the current conflict. These assets are maintained in theater and are removed from theater to higher-level maintenance only when required. These prepositioned stocks are a critical element in meeting deployment timelines required for national security. **The equipment will require a significant amount of reset following the current conflict; until that equipment is reset, the nation will be accepting risk in its ability to deploy forces in the time required.**

What Is Needed

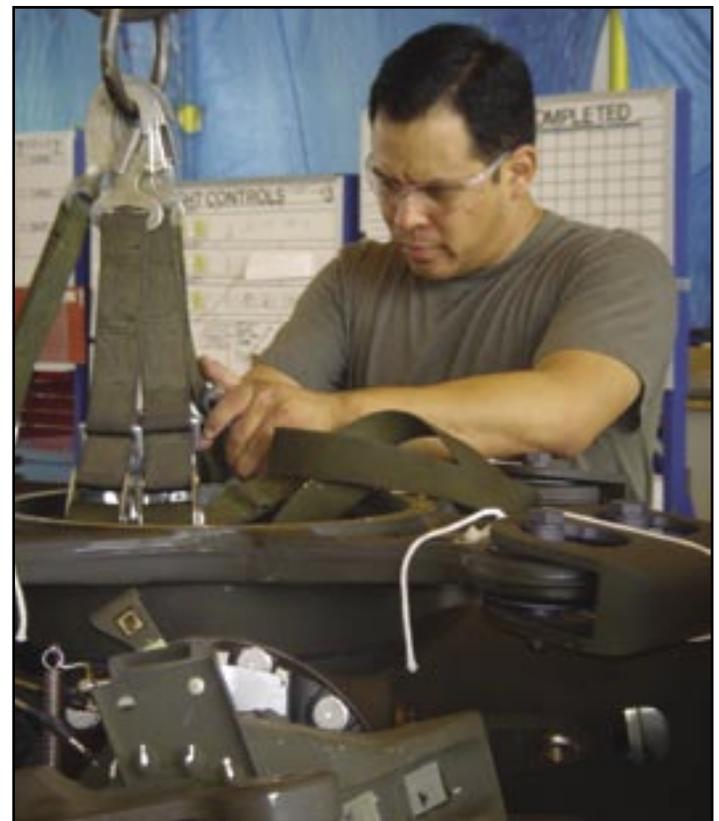
Reset involves much more than just the equipment; it is resetting the force—reorganizing into modular units, incorporating lessons learned, developing leaders and Soldiers and adjusting prepositioned stocks—while bringing unit readiness back up to Army standards. When the 4th Infantry Division returned from Iraq in 2004, it needed to replace, repair or refurbish 71,000 pieces of equipment. But it also had to absorb thousands of newly assigned Soldiers (many directly out of basic/advanced individual training) and to reorganize the entire division into a modular force, to include manning and equipping a

new 4th Brigade. “[We] had to [reorganize] 90 percent of the division,” said the division commander, Major General James D. Thurman. “That’s not just people, that’s equipment and things.”

What is needed is for Congress and the administration to continue their support for Army transformation to a modular force and the eventual resetting of the force. The initial turmoil is countered by huge dividends, over time, in improved readiness of the force, increased ability to generate forces, and enhanced stability and predictability for units and Soldiers and their families.

What Must Be Done

Over the past year, congressional support has helped the Army make tremendous strides in transforming itself, enhancing the capabilities of Soldiers, units and equipment, and rapidly returning units to an effective





Systems Technical Support accounts are misguided. **The Army is funded in the budget for peacetime; while there is a slight offset in these requirements as units deploy, the majority of the costs are fixed and are required whether or not the Army is deployed.** These programs support the forces as they are preparing to deploy. With emerging requirements growing from the Integrated Global Presence and Basing Strategy, the recent round of Base Realignment and Closure issues, and the emerging results of the Quadrennial Defense Review, it must be recognized that the Army has borne the brunt of the impacts from current contingencies, and these impacts have been and will require adequate supplemental and base program resources.

Therefore, Congress must:

- fund the Department of Defense (DoD) at an amount approximating 4 percent of the Gross Domestic Product; and
- increase the Army's share of the DoD budget to at least 28 percent to meet Army requirements.

level of readiness upon their return from operational employment. This support is again critical as the Army continues its efforts to remain ready for current and future challenges.

While supplemental appropriations have been critical in fixing current problems and in addressing some of the lifecycle issues that have resulted, additional support is necessary. The Army must maximize the organic and industrial capability available to ensure that equipment fleets are reset to their pre-OIF/OEF conditions. **To complete reset, the Army will require increased funding above the baseline budget for at least two years after hostilities have ceased.** This funding is critical to ensure the viability of the Army for future contingencies, and to preclude the need for increased Research, Development and Acquisition funding if contingencies occur.

It is imperative that the Army baseline funding not decrease to offset the costs of current operations. Recent considerations by congressional committees to offset the cost of current operations by lowering Army Depot Maintenance and Sustainment





Torchbearer Message

The Army has been and continues to be extensively deployed and fighting in harsh conditions. Operation Iraqi Freedom and Operation Enduring Freedom have taken a heavy toll on Army equipment—both washed out equipment (damaged to the degree that repair is not economical) and losses. This equipment is essential to the Army's ability not only to win the current fight but also to prepare for future fights. Equipment used in OIF and OEF has logged mileage and hours at least five times the rate of peacetime usage, resulting in the need not only to conduct extensive maintenance but to replace much of the equipment in use. To counter these effects, the Army has developed comprehensive Reset strategies for equipment fleets, including the recapitalization and necessary upgrade of key components. Recapitalization will allow the Army to offset the high operational tempo and sustain fleets throughout their expected life cycles.



While the Army executes repair and replacement as quickly as possible, Reset is an ongoing process. This is largely because of the necessity to remain engaged in the theaters and to train other Soldiers for upcoming deployments. Equipment that remains in theater—from prepositioned stocks, left for follow-on units by those redeployed or deployed with current units—is not available for reset this year. Large portions of this equipment were modified for use—mainly by adding additional armor. This equipment will remain in theater until contingencies are complete; it will have to be reset when it is no longer needed for ongoing operations, and then placed back in prepositioned stocks or back in units. It is imperative the Army receive the funding necessary to do this after hostilities cease and units are withdrawn—if not, the Army's unit readiness will be degraded, prepositioned stocks will be unavailable for use, and the Army will not be able to provide life-protecting equipment to Soldiers in peacetime so that they are properly trained and available for future conflict.

In sum, the increased OPTEMPO combined with an already aging fleet and significant combat losses challenge the Army's ability to sustain operational availability. This challenge can be met only with a structured, formal, fully-funded program to reset the Army's equipment when it returns from the operational area, complemented by a long-term Recapitalization program to ensure the Army can sustain readiness of its systems over their life span.

I have testified now for two years, as we've been talking about the supplemental funding required to reset the force—it will take us at least two years to reset the force from what we are consuming in this war.

General Peter J. Schoomaker
Chief of Staff, United States Army
in testimony before the Senate Armed
Services Committee, 30 June 2005



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