

An hourglass-shaped graphic with a globe inside. The top bulb is dark blue, and the bottom bulb is light blue. The globe is centered within the hourglass, and the text is arranged around it.

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*U.S. Army and Marine Corps Equipment Requirements:  
Background and Issues for Congress*

Andrew Feickert, Foreign Affairs, Defense, and Trade Division

January 29, 2008

**Abstract.** Equipping Reserve and National Guard units also presents challenges to the services. Traditionally, the Army National Guard and Reserve have been characterized as under-equipped and often times equipped with older equipment than their Active component counterparts. The Army has committed to both man and equip the Army Reserves and National Guard in a similar manner to the Active component. The Army and Marine Corps are also undertaking efforts to re-equip their pre-positioned stocks which were drawn upon to provide equipment for use in Afghanistan and Iraq. The Army and Marines are also actively pursuing the acquisition of new equipment based on wartime experiences. The Army and Marines have a number of equipment-related challenges to rectify which may require significant funding and management efforts.

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# CRS Report for Congress

## U.S. Army and Marine Corps Equipment Requirements: Background and Issues for Congress

Updated January 29, 2008

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Prepared for Members and  
Committees of Congress

# U.S. Army and Marine Corps Equipment Requirements: Background and Issues for Congress

## Summary

The United States Army and Marine Corps have been at war — first in Afghanistan and then Iraq — since November 2001. The Army's and Marine Corps' equipment has been employed in what has been described as “the harsh operating environments of Iraq and Afghanistan” where the heat, sand, and dust as well as operational rates “well in excess of peacetime rates” have taken a heavy toll on the Army's and Marines' equipment.

Re-equipping Reserve and National Guard units that, in many cases, were under-equipped to start with and then required to leave their equipment in theater also presents challenges to the Services. The Army and Marine Corps are also undertaking efforts to re-equip their pre-positioned stocks which were drawn upon to provide equipment for use in Afghanistan and Iraq. There are also concerns that the Army and Marines have not always aggressively pursued the best force protection equipment available and the Army has been questioned on its efforts to improve the standard soldier assault rifle. Congress, in its appropriation, authorization, and oversight roles may be faced with some of the following issues:

- What are the Department of Defense's (DOD's) and the Service's plans to re-equip reserve forces so that they are sufficiently resourced for domestic missions and to properly train for deployments to Iraq and Afghanistan?
- What is the current state of pre-positioned stocks that have been drawn down again to support the Iraq “surge”? What type of equipment is being used to restock pre-positioned stocks and is this equipment fully operational or in a lesser state of readiness?
- How Many MRAPs does DOD intend to procure?
- Have bureaucratic difficulties attributed to the Army and DOD had an adverse impact on efforts to find a suitable replacement for the Army's M-16/M-4 series of assault rifles?

This report will be updated on a periodic basis.

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# U.S. Army and Marine Corps Equipment Requirements: Background and Issues for Congress

## Background

The United States Army and Marine Corps have been at war — first in Afghanistan and, then Iraq — since November 2001. In a similar manner, the Marine Corps has deployed its forces and equipment in what has been described as “the harsh operating environments of Iraq and Afghanistan” where the heat, sand, and dust as well as operational rates “well in excess of peacetime rates” have taken a heavy toll on the service’s equipment, which, in some cases, was more than 20 years old when the conflicts first began.<sup>1</sup>

Equipping Reserve and National Guard units also presents challenges to the services. Traditionally, the Army National Guard and Reserve have been characterized as under-equipped and often times equipped with older equipment than their Active component counterparts. The Army has committed to both man and equip the Army Reserves and National Guard in a similar manner to the Active component.<sup>2</sup> The Army and Marine Corps are also undertaking efforts to re-equip their pre-positioned stocks which were drawn upon to provide equipment for use in Afghanistan and Iraq. The Army and Marines are also actively pursuing the acquisition of new equipment based on wartime experiences. The Army and Marines have a number of equipment-related challenges to rectify which may require significant funding and management efforts.

## Historical Perspective on Equipment

Equipping Army and Marine units has been a long-standing concern of Congress that has taken on added importance as weapons and equipment have become exponentially more sophisticated and expensive. With few exceptions, almost all Army and Marine Corps units have historically faced equipment shortages. In these cases, units either “made do” with the equipment on hand or, if leadership directed, equipment could be transferred from one unit to another — referred to as

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<sup>1</sup> United States Government Accountability Office (GAO) Testimony Before the Subcommittee on Readiness and Tactical Air and Land Forces, Committee on Armed Services, House of Representatives, “Defense Logistics: Preliminary Observations on Equipment Reset Challenges and Issues for the Army and Marine Corps,” GAO-06-604T, March 30, 2006.

<sup>2</sup> Donna Miles, “Army to Ensure Reserve Components Fully Manned, Trained, Equipped,” American Forces Press Service, February 2, 2006.

“cross leveling” — to increase a unit’s equipment holdings at the expense of another unit or organization. Reserve forces, which in the past constituted the nation’s “Strategic Reserve,” usually had less equipment than their active duty counterparts and much of this equipment tended to be older models.

Protracted conflicts — like Afghanistan and Iraq — serve the purpose of identifying what equipment works and what equipment does not, as well as identifying requirements for new equipment. In the later case, the wars in Iraq and Afghanistan have generated requirements for new equipment such as Mine-Resistant, Ambush-Proof (MRAP) vehicles. Protracted conflicts also dramatically increase equipment operational usage rates, resulting in reduced useful life and increasing repair and replacement requirements.

## Equipping the Force

There are a number of dimensions to equipping Army and Marine Corps units that are examined in the following sections. Equipping units might appear to be a relatively straight forward exercise, but there are a variety of factors involved. Funding is perhaps the foremost issue, as funding is often limited, requiring the services often to make trade-offs between equipment needed to sustain operations and equipment for reorganization or modernization efforts. Another issue is that even if funds are readily available, the equipment might not be. Army officials maintain that for some systems, it can take up to three years after receiving funding before they can be fielded to units.<sup>3</sup>

**Equipping Units to Their Authorized Levels.** Prior to units being deployed on operations, the Army and Marine Corps typically attempt to bring these units up to their authorized levels of both personnel and equipment. In terms of equipping forces, there are a number of options available. The first option is to requisition the needed equipment through each service’s respective supply chain, but this option may not be practical if a unit’s equipment needs are significant or if the unit does not have a great deal of time before it deploys. Other options for equipping units include cross-leveling and drawing equipment “in-theater” when a unit deploys. These other two options will be discussed in greater detail in following sections.

**Equipping Units Above Authorized Levels.** Both the Army and Marines are providing their units with additional equipment over and above their peacetime authorized levels, which is placing significant equipment demands on both services.<sup>4</sup> The Army maintains that its brigade combat teams (BCTs) are operating over a much wider geographical area than they were designed for and therefore require additional equipment to facilitate these dispersed operations. In addition, units such as the 10<sup>th</sup>

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<sup>3</sup> From discussions with the Army’s Material Division, G-8 Section of the Army Staff on October 25, 2006.

<sup>4</sup> Information in this section is taken from the Statement of General Michael W. Hagee, Commandant of the Marine Corps before the House Armed Services Committee Hearing on Army and Marine Corps Strategies for Ground Equipment and Rotor Craft, June 27, 2006, and a discussion with the Army’s Material Division, G-8 Section of the Army Staff on July 12, 2006.

Mountain Division, 101<sup>st</sup> Airborne, and 82<sup>nd</sup> Airborne, the Army's light, largely foot-mobile infantry units, require extensive equipment augmentation — particularly vehicles — in order to operate over the large areas assigned to them.

The Marines suggest that:

The Marine Corps is executing a number of operational missions that are inherently ground equipment intensive. Stability and Support Operations (SASO), Counter-Insurgency (COIN), Civil Military Operations, and Foreign Military Training all require a greater quantity of equipment than our programmed levels for traditional combat operations. In order to adapt to these new mission requirements, we have revised the Equipment Density List, increasing the quantity of equipment issued to Marine Units deploying into the CENTCOM<sup>5</sup> ... Our forward operating bases are not in close proximity to each other; the large distances between forward operational bases require additional vehicles, communications capabilities, and crew-served weapons over and above the standard unit Equipment Density List ... The increased ground equipment requirement, when coupled with high utilization rates, results in a Corps-wide degradation of equipment.<sup>6</sup>

The following table provides a selective comparison of a Marine Expeditionary Force (MEF) (Forward) — an approximately 18,000 Marine force — pre-war and revised equipment requirements.<sup>7</sup>

**Table 1. Selected MEF (Forward) Equipment Density Comparison**

Equipment	Pre-War Equipment Density List	Revised Equipment Density List
PRC-117 Radio	78	205
7-Ton Medium Tactical Vehicle Replacement (MTVR)	540	1015
Armored HMMWV	311	981
M-2 50-Caliber Machine Gun	534	634

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<sup>5</sup> U.S. Central Command (CENTCOM) is the Unified Combatant Command responsible for operations in Iraq and Afghanistan as well as other geographical locations within their command jurisdiction.

<sup>6</sup> Statement of General Michael W. Hagee, Commandant of the Marine Corps before the House Armed Services Committee Hearing on Army and Marine Corps Strategies for Ground Equipment and Rotor Craft, June 27, 2006, p. 5.

<sup>7</sup> Ibid.

## Coping With Equipment Shortfalls

**Cross-Leveling.** Cross-leveling is the practice of transferring equipment to a unit either from another unit or from some type of equipment pool such as pre-positioned stocks. In the case of a unit-to-unit transfer, the transferred equipment often comes from a similar-type unit, usually in a non-deployable status. Both the Army and Marines have made extensive use of cross-leveling, particularly early on in the Afghan and Iraq conflicts.

**Equipment in Theater.**<sup>8</sup> The Army has kept large quantities of equipment in theater, primarily to conserve strategic transportation assets and reduce costs, but also to ensure that units are adequately equipped when deployed. This initiative — called Theater Provided Equipment (TPE) — began in late 2003 when Army units, including Active, National Guard and Reserve, were directed to leave much of their equipment in theater when they redeployed back to the United States. This equipment is then “handed-off” to units deploying to both Operations Enduring Freedom (OEF) in Afghanistan and Operation Iraqi Freedom (OIF). TPE consists of a variety of equipment items including armored vehicles, individual soldier body armor, and equipment used to counter improvised explosive devices. The Marines have also directed that equipment needed for OEF and OIF be left in theater. As previously noted, because mission requirements require additional equipment beyond a unit’s peacetime equipment allowance, the Marines have developed expanded equipment packages in theater for deploying units.

Both Services have also set aside pools of equipment to rapidly replace equipment damaged and destroyed during operations. The Army refers to this pool of equipment as Theater Sustainment Stocks (TSS). This includes as many as 400 different types of vehicles and equipment numbering about 174,000 pieces of equipment including, Abrams tanks, Bradley fighting vehicles, HMMWVs, and other support vehicles. The Marines also have developed a similar pool of equipment known as Forward In-Stores to replace major equipment damaged or destroyed.

**Requirement to Replace Reserve and National Guard Equipment Left in Theater.** In late 2003, the Army directed National Guard and Reserve units to leave selected items of equipment in theater when redeploying to the United States.<sup>9</sup> This equipment left behind by Guard and Reserve units is placed in both the TPE and TSS equipment pools, along with equipment left in theater by Active Army

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<sup>8</sup> Information in this section is taken from United States Government Accountability Office (GAO) Testimony Before the Subcommittee on Readiness and Tactical Air and Land Forces, Committee on Armed Services, House of Representatives, Defense Logistics: Preliminary Observations on Equipment Reset Challenges and Issues for the Army and Marine Corps, GAO-06-604T, March 30, 2006, p. 6.

<sup>9</sup> United States Government Accountability Office (GAO) Testimony Before the Subcommittee on Readiness and Tactical Air and Land Forces, Committee on Armed Services, House of Representatives, Defense Logistics: Preliminary Observations on Equipment Reset Challenges and Issues for the Army and Marine Corps, GAO-06-604T, March 30, 2006, p 16.



units. DOD Policy<sup>10</sup> requires that the Army replace equipment transferred to it by reserve components and if that equipment is left in theater, the Army must provide “plans to replace equipment for units returning home to ensure training readiness.”<sup>11</sup> National Guard leadership has reportedly stated that the Army National Guard, on aggregate, has only 56% of its authorized equipment.<sup>12</sup> It is not known if the Army has developed plans to replace National Guard and Reserve equipment left in Iraq and if efforts are underway to meet this DOD policy.

**Recent Congressional Action.**<sup>13</sup> The National Defense Authorization Act for FY2008, H.R. 4986, authorizes \$6.68 billion for National Guard and Reserve Equipment, \$980 million over the President’s FY2008 Budget Request.

**Equipment from Prepositioned Stocks.** Another source for equipping Army and Marine Corps units is equipment from prepositioned stocks either ashore or afloat. Reports maintain that both the Army and Marines have drawn extensively on prepositioned stocks to support operations in Iraq and Afghanistan.<sup>14</sup> While drawing on these stocks has facilitated operations in Iraq and Afghanistan, by depleting these stocks, DOD has assumed near-term operational risks if another large scale conflict breaks out. While the remnants of these prepositioned stocks provide a degree of residual capability, there are supposedly some significant inventory and maintenance shortfalls.<sup>15</sup>

To support operations, the Army reportedly used almost all of its prepositioned ship stocks and its stocks ashore in Kuwait and Qatar as well as some stocks in

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<sup>10</sup> Department of Defense Directive 1225.6, Equipping the Reserve Forces, April 7, 2005.

<sup>11</sup> Ibid., p. 3.

<sup>12</sup> Peter Spiegel, “Guard Equipment Levels Lowest Since 9/11,” *Los Angeles Times*, May 10, 2007.

<sup>13</sup> Conference Report 110-477, FY 2008 National Defense Authorization Act, H.R. 4986, Explanatory Statement — The Joint Explanatory Statement submitted by the Committee of Conference for the conference report to accompany H.R. 1585 of the 110<sup>th</sup> Congress (Report 110-477) shall be deemed to be part of the legislative history of this Act (H.R. 4986) and shall have the same effect with respect to the implementation of this Act as it would have had with respect to the implementation of H.R. 1585, if such bill had been enacted.

<sup>14</sup> Unless otherwise noted, information in this section is taken from United States Government Accountability Office (GAO) Testimony Before the Subcommittee on Readiness and Tactical Air and Land Forces, Committee on Armed Services, House of Representatives, “Defense Logistics: Preliminary Observations on Equipment Reset Challenges and Issues for the Army and Marine Corps,” GAO-06-604T, March 30, 2006, pp. 15-16.

<sup>15</sup> United States Government Accountability Office (GAO) Testimony Before the Subcommittee on Readiness, Committee on Armed Services, House of Representatives, “Military Prepositioning: Observations on Army and Marine Corps Programs During Operation Iraqi Freedom and Beyond,” GAO-04-562T, March 24, 2006, p. 11.

Europe.<sup>16</sup> This included more than 10,000 pieces of rolling stock, 670,000 repair parts, 3,000 containers and thousands of other items of equipment.<sup>17</sup> According to Marine Corps leadership, the Marines drew equipment and supplies from the Marine Corp's two prepositioning programs — the Maritime Prepositioning Force and the Marine Corps Prepositioning Program (Norway) — to support operations in Iraq and Afghanistan.<sup>18</sup>

**Reconstituting Prepositioned Stocks.** The Army and Marines are attempting to reconstitute their prepositioned stocks. The Army is reportedly focusing on building two brigade-sized equipment sets in Kuwait and battalion sized sets in Qatar and Afghanistan.<sup>19</sup> Equipment that is being used to form these sets is coming from a combination of equipment left in theater, equipment being transferred from U.S. depots, and from units around the world. Much of this equipment is described as needing “substantial repair.”<sup>20</sup>

**Prepositioned Stocks Used to Support Iraq “Surge”.** Reports suggest that prepositioned stocks that were being rebuilt were drawn on heavily primarily to support the Iraq “surge” resulting in the lowest level of prepositioned stocks in five years.<sup>21</sup> Under normal circumstances, the Army has five full brigades’ worth of prepositioned equipment available: two brigades’ worth in Kuwait; one brigade in Korea, and two brigades’ worth aboard ships in Guam and at the U.S. naval base at Diego Garcia.<sup>22</sup> In order to provide equipment to surging forces, the Army used the afloat stocks and are also using the Kuwaiti stocks to equip units. Only the South Korean stocks are largely intact. According to former Chief of Staff of the Army General (GEN) Peter Schoomaker, it will take two years to rebuild the prepositioned stocks, a fact that worries both military officials and Congress, as these equipment shortages severely limit the Army’s ability to respond to other military contingencies.

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<sup>16</sup> Ibid.

<sup>17</sup> Ibid.

<sup>18</sup> Statement of General Michael W. Hagee, Commandant of the Marine Corps before the House Armed Services Committee Hearing on Army and Marine Corps Strategies for Ground Equipment and Rotor Craft, June 27, 2006, p. 6.

<sup>19</sup> United States Government Accountability Office (GAO) Testimony Before the Subcommittee on Readiness and Tactical Air and Land Forces, Committee on Armed Services, House of Representatives, “Defense Logistics: Preliminary Observations on Equipment Reset Challenges and Issues for the Army and Marine Corps,” GAO-06-604T, March 30, 2006, pp. 15-16.

<sup>20</sup> Ibid.

<sup>21</sup> Roxana Tiron, “Panel Questions Equipment Deployment,” The Hill.com, March 14, 2007 and Kris Osborn, “U.S. Army: Prepositioned Stocks at 5-Year Low,” *DefenseNews.com*, April 11, 2007.

<sup>22</sup> Information in this section is taken from Ann Scott Tyson, “Military is Ill-Prepared for Other Conflicts,” *Washington Post*, March 19, 2007.

The Army estimates that it will require an additional \$2.2 billion to replace prepositioned equipment that was issued to support the “surge.”<sup>23</sup>

## War-Related Equipment Needs

The wars in Afghanistan and Iraq have generated a variety of equipment requirements. These requirements range from developing new equipment, providing commercially-available equipment to service members and units, and modifying existing equipment. The early years of the Afghan and Iraq wars revealed deficiencies both in quantity and quality of protective equipment such as body armor for individual troops and armor protection for wheeled vehicles. Congressional involvement has played a significant role in focusing DOD’s attention and resources in addressing these force protection deficiencies, which have seen significant improvement over the past few years. Body armor remains an ongoing issue; some are concerned that the Army’s M-16 series of weapons are not reliable; and one relatively current force protection initiative, the Mine-Resistant, Ambush-Proof (MRAP) vehicle, is receiving considerable attention.

### Mine-Resistant, Ambush-Proof (MRAP) Vehicles<sup>24</sup>

MRAP refers to a family of vehicles produced by a variety of U.S. and international companies that generally incorporate a “V” shaped hull and armor plating designed to provide protection against mines and improvised explosive devices (IEDs) which have been responsible for about 70% of U.S. casualties in Iraq. There are three categories of MRAPs that DOD is procuring:

- Category I vehicles weighing about seven tons and capable of carrying six passengers.
- Category II vehicles weighing about 19 tons, are capable of carrying 10 passengers and can perform a variety of missions including ambulance transport and convoy escort.
- Category III vehicles intended to be used primarily to clear mines and IEDs, weighing about 22.5 tons and capable of carrying up to 12 passengers.

The Army and Marines have employed two versions of MRAPs (the Buffalo and Cougar, respectively) in limited numbers in Iraq and Afghanistan since 2003, primarily for route clearance and explosive ordnance disposal (EOD) operations.

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<sup>23</sup> Congressional Transcript - House Appropriations Subcommittee on Defense Hearing on Army Reset, April 18, 2007, p. 4.

<sup>24</sup> For detailed information on this topic see CRS Report RS22707, *Mine-Resistant, Ambush-Proof (MRAP) Vehicles: Background and Issues for Congress*.

MRAPs have been described as providing “twice as much protection against IEDs”<sup>25</sup> as uparmored HMMWVs. The Secretary of Defense, Robert Gates, has made MRAP procurement one of DOD’s top priorities, and Service requirements have varied greatly. On June 28, 2007, the Joint Requirements Oversight Council (JROC)<sup>26</sup> reportedly endorsed a requirement to replace every HMMWV in with a MRAP, potentially pushing the MRAP requirement to more than 23,000 vehicles.<sup>27</sup> The JROC capped overall MRAP procurement at 15,374 vehicles in September 2007 but suggested that these numbers could change, based on the assessment of commanders.<sup>28</sup>

## Body Armor

In June 2007, the Government Accountability Office (GAO) reported that “the Army and Marines are currently meeting theater ballistic requirements and the required amount of body armor needed for personnel in theater, including amounts needed for the surge of troops to Iraq.”<sup>29</sup> Both the Army and Marines are involved in efforts to improve the current Interceptor body armor systems used in Iraq and Afghanistan.

**Dragon Skin Body Armor.** On March 17, 2006, the Army issued a Safety of Use Message discontinuing the use of Dragon Skin body armor — a commercially developed product by Pinnacle Armor — that some soldiers had acquired privately for use in Iraq and Afghanistan.<sup>30</sup> Army officials at the time, who had been examining Dragon Skin for potential use by the Army, stated that Dragon Skin was “not certified against small arms threats.”<sup>31</sup> Since the ban on Dragon Skin by the Army, Pinnacle Armor Inc., as well as others have alleged that Dragon Skin performed better on the Army’s tests and subsequent private tests than the Army has suggested.<sup>32</sup> On May 21, 2007, to counter these charges, the Army held a press

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<sup>25</sup> Tom Vanden Brook, “Troops in Iraq Get Safer Vehicle, *USA Today*, May 10, 2007.

<sup>26</sup> Chartered in 1984 ( 10 U.S.C. Sec 181), the JROC is tasked with examining potential joint military requirements; identifying, evaluating, and selecting candidates for joint developmental and acquisition programs; providing oversight of cross-service requirements and management issues; and resolving service concerns that arise after the initiation of a joint program.

<sup>27</sup> Jason Sherman, “Do the Marines Really Want 246,000 MRAPs? Not Exactly,” *Inside Defense.com*, August 2, 2007.

<sup>28</sup> JenDiMascio, “JROC Boosts MRAP Requirements; Congress Struggles to Arrange Funding,” *Defense Daily*, Volume 235, Issue 56, September 20, 2007.

<sup>29</sup> United States Government Accountability Office Testimony Before the House Armed Services “Defense Logistics: Army and Marine Corps” Body Armor Requirements, Controls, and Other Issues,” June 6, 2007, p. 3.

<sup>30</sup> Safety of Use Message (SOUM) 06-017, “Discontinue Use of Unauthorized Body Armor, Dragon Skin,” issued by Program Executive Office - Soldier, March 17, 2006.

<sup>31</sup> *Ibid.*

<sup>32</sup> Adam Ciralsky and Lisa Meyers, “Are U.S. Soldiers Wearing the Best Body Armor,” (continued...)

conference where Army officials allege that Dragon Skin had “catastrophically failed” the Army’s tests.<sup>33</sup> On May 21, Senators Levin and McCain wrote Secretary of Defense Gates asking him to have the Directors of Defense Research Engineering and Operational Test and Evaluation “conduct a comprehensive technical assessment of the individual body armor systems currently available.”<sup>34</sup> During a House Armed Services Committee hearing on body armor on June 6, 2007, committee members called for additional testing for Dragon Skin body armor and the Army reportedly agreed to re-test Dragon Skin if its maker responded to the Army’s current request for proposal (RFP) for new body armor.<sup>35</sup> The Air Force Material Command has reportedly recommended that the Air Force prohibit Pinnacle Armor, Inc., from signing new contracts with the U.S. government due the allegation that Pinnacle Armor had made false claims about Dragon Skin meeting government testing standards.<sup>36</sup>

**Replacing M-16 and M-4 Carbines?**<sup>37</sup> In the mid-1990s, the Army began fielding the M-4 carbine, a lighter, more compact version of the Vietnam-era M-16 rifle which had a history of malfunctioning in combat. Both M-16 and M-4 carbines are manufactured by Colt and are currently used by U.S. forces fighting in Iraq and Afghanistan. While many maintain that the M-4 is a much more reliable rifle than the M-16, it is alleged that soldiers have expressed significant concerns over the M-16’s and M-4’s lethality and reliability during combat in Iraq and Afghanistan. In 2004, the Army’s Special Forces Operational Detachment — Delta (commonly referred to as “Delta Force”) replaced their M-4 carbines with Heckler & Koch 416 carbines. The Army’s program to replace the M-16 family of weapons — the Objective Individual Combat Weapon (OICW) program — began in 1994 and one component of that program, Heckler & Koch’s XM-8 assault rifle, was considered by some as the M-16’s/M-4’s replacement. As late as 2005, the XM-8 was reportedly close to being officially approved as the Army’s new assault rifle, but alleged acquisition and bureaucratic conflicts within the Army and between the Army and DOD supposedly compelled the Army to cancel the XM-8 program in October 2005. The Army reportedly plans to continue its procurement of M-16s and M-4s for “years to come,”

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<sup>32</sup> (...continued)

MSNBC.com, May 20, 2007 and Matthew Cox, “TV Report Questions Army Ban on Dragon Skin,” *Army Times*, May 21, 2007.

<sup>33</sup> DOD News Transcript, “DOD News Briefing with BG Brown from the Pentagon,” May 21, 2007.

<sup>34</sup> Letter from the Senate Armed Services Committee from Senators Levin and McCain dated May 21, 2007.

<sup>35</sup> Jen DiMascio, “Lawmakers Support Test of Dragon Skin Body Armor,” *Defense Daily*, Volume 234, Issue 47, June 7, 2007, p. 13 and Michelle Tan, “Army Agrees to Test Dragon Skin Body Armor,” *Army Times*, June 7, 2007.

<sup>36</sup> Megan Scully, “Air Force Officials Seek Disbarment of Body Armor Maker,” *National Journal’s Congress Daily PM*, June 11, 2007.

<sup>37</sup> Information in this section is taken from a series of articles by Matthew Cox, “Better than the M-4, But You Can’t Have One,” *Army Times*, March 1, 2007; “Competition Sought for New Army Rifle,” *Army Times*, April 27, 2007; and “Doomed Carbine the Victim of Army Infighting,” *Army Times*, June 4, 2007.

and some in Congress have called for a “open competition” to choose a successor to the M-16 and M-4 assault rifles.

## **Reset: Replacing Damaged, Destroyed, and Worn-Out Equipment**

Replacing damaged, destroyed, and worn-out equipment arguably constitutes the most significant equipment issue - both in terms of cost and magnitude - facing the Army and Marine Corps. The process of replacing this equipment is generally referred to as “reset” by the Army and the Marines and is further defined as follows:<sup>38</sup>

- Reset is defined as “a series of actions taken to restore unit equipment to a desired level of combat capability after returning from contingency operations.”
- Reset includes the functions of *repairing* equipment and *replacing* equipment that has either been lost in combat or worn to the point of being uneconomically repairable.
- Reset also includes the function of *recapitalization* which is the rebuilding or systemic upgrading of currently fielded systems to a “zero time/zero miles” status which is intended to extend service life, reduce operations and support costs, and improve reliability and enhance capability — often based on lessons learned in Iraq and Afghanistan.

**The Army and Reset.** Army leadership has credited funding and “around-the-clock work” for an increase in FY2007’s reset rate.<sup>39</sup> By the end of FY2007, the Army predicted that it should have reset approximately 117,000 major items of equipment, including

- 557 Aircraft;
- 1,700 Tracked Vehicles;
- 8,115 HMMWVs;
- 1,800 Trucks;

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<sup>38</sup> Statement by General Peter J. Schoomaker, Chief of Staff of the Army, Before the Committee on Armed Services, United States House of Representatives, “The Army’s Reset Strategy and Plan for Funding Reset Requirements,” June 27, 2006 and “Resetting the Force: The Equipment Challenge,” Association of the United States Army (AUSA) Torchbearer National Security Report, October 2005.

<sup>39</sup> Information in this section is taken from a statement by BG Charles A. Anderson, MG Vincent E. Boles, BG Robert M. Radin, and Mr. Thomas E. Mullins before the House Subcommittee on Readiness and Air and Land Forces, January 31, 2007 and Gerry J. Gilmore, “Army Equipment Reset Program Ahead of 2006 Pace,” American Forces Press Services, February 1, 2007.

- 1,200 Trailers;
- 39,000 Small Arms; and
- 7,400 Generators.

In FY2008, the Army hopes to reset 24 brigade combat teams (BCT), consisting of about 4,000 soldiers and about 40,000 pieces of equipment each, returning from operations in Iraq and Afghanistan.

**The Army Combines Reset and Modernization.**<sup>40</sup> In October 2007, after a year-long study, the Army decided to combine its reset and modernization efforts into a single, two-year \$50 billion program. The \$50 billion price tag for this effort includes \$17 billion spent on rest in FY2007, the Army's \$18.4 billion supplemental funding request for FY2008, and \$14.5 billion in procurement funds spent in FY2007 and appropriated for FY2008. The Army, which plans to complete this program by the end of FY2009, is said to be taking advantage of resources that they have today that they might not have in the future. Under this effort, the Army plans to

- go from five Abrams tank variants to two variants by 2011;
- go from five Bradley fighting vehicles to two by 2011;
- all Patriot PAC-2 missiles to PAC-3 missiles;
- 9,000 M-35 two and a half ton trucks to be replaced by the Family of Medium Tactical Vehicles;
- unmanned systems — 3,000 on order for Iraq and Afghanistan; and
- upgraded ballistic armor protection for HMMWVs and MRAPs.

Some analysts believe that this “hurry up” approach of combining reset and modernization could save the Army money, but there are concerns that by combining these efforts, separating and tracking costs and expenditures — already a significant problem — could become more difficult.

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<sup>40</sup> Information in this section is taken from Kris Osborn, “U.S. Army Plans \$50B Reset and Upgrade,” *Defense News*, Vol. 22, No. 46, November 26, 2007.

**Recent Congressional Actions.**<sup>41</sup> The National Defense Authorization Act for FY2008, H.R. 4986, authorizes \$18.4 billion for Army reset, \$4.8 billion over the Administration's FY2008 budget request.

**The Marines and Reset.** The Marines estimated that the cost to reset the Marine Corps at the end of FY2006 was \$13.7 billion, a "rolling estimate that included two years worth of depot at the conclusion of the current hostilities and is thus somewhat variable."<sup>42</sup>

**Recent Congressional Actions.** The National Defense Authorization Act for FY2008, H.R. 4986, authorizes \$8.6 billion for Marine Corps reset, \$ 6.9 billion over the Administration's FY2008 budget request.

## Potential Issues for Congress

### Equipping Reserve Forces

There are continued concerns about the availability of equipment for reserve forces — particularly the Army National Guard — in terms of readiness to address domestic responsibilities as well as when these units are deployed to Iraq and Afghanistan. In January 2007, Government Accountability Office (GAO) noted that:

The high use of the National Guard for federal overseas missions has reduced equipment available for its state-led domestic missions, at the same time it faces an expanded array of threats at home.<sup>43</sup>

On March 27, 2007, Lieutenant General H. Steven Blum, Chief of the National Guard Bureau, told the House Subcommittee on Readiness that the Army National Guard had only 40% of its required equipment on-hand, with an additional 11% of that equipment either deployed with units or left in theater for other units to use.<sup>44</sup> Lieutenant General Blum further maintained that this situation hindered the ability

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<sup>41</sup> Conference Report 110-477, FY 2008 National Defense Authorization Act, H.R. 4986, Explanatory Statement — The Joint Explanatory Statement submitted by the Committee of Conference for the conference report to accompany H.R. 1585 of the 110<sup>th</sup> Congress (Report 110-477) shall be deemed to be part of the legislative history of this Act (H.R. 4986) and shall have the same effect with respect to the implementation of this Act as it would have had with respect to the implementation of H.R. 1585, if such bill had been enacted.

<sup>42</sup> Statement of Lieutenant General Emerson N. Gardner, Jr., "U.S. Marine Corps and U.S. Navy Reset Requirements," before the House Subcommittees on Readiness and on Seapower and Expeditionary Forces, February 13, 2007, p. 3.

<sup>43</sup> United States Government Accountability Office (GAO) "Report on Reserve Forces: Actions Needed to Identify National Guard Domestic Equipment Requirements and Readiness," GAO-07-60, January 2007, p. 1.

<sup>44</sup> Statement by Lieutenant General H. Steven Blum, Chief of the National Guard Bureau before the House Armed Services Committee, Subcommittee on Readiness on Readiness of the Army and Air National Guard, March 27, 2007, p. 3.



to train units and could slow the National Guard's domestic response to disasters or terrorist incidents.<sup>45</sup> Recent reports suggest that National Guard soldiers training for deployment to Iraq and Afghanistan are not able to train with the same rifles, HMMWVs, night vision, and other types of equipment that these soldiers will be issued when they arrive in theater which has raised questions as to how well these units will be able to function in combat when they are provided equipment that they are not familiar with?<sup>46</sup> The Army has reportedly pledged to spend \$21 billion over the next four years to re-equip the National Guard, but some are concerned that this equipment will instead be deployed to Iraq to support the "Surge" instead of being used to re-equip depleted National Guard units at home as they prepare to support domestic missions and train for overseas deployments.<sup>47</sup>

Given these concerns, Congress might decide to examine DOD's and the Army's plans to re-equip National Guard units. Such an examination could focus on how units will be re-equipped to deal with domestic responsibilities and also how these units will be provided with the same equipment that they will receive upon deployment for home-station training in the United States. This examination might also examine how DOD and the Army plan to bring the Reserve's aggregate equipment level from about the current 40% level to at least the 80% level that Guard and Reserve leadership have called an "acceptable level" to meet both domestic and overseas requirements.<sup>48</sup>

### **The State of Prepositioned Stocks<sup>49</sup>**

Some in Congress have expressed alarm in both the extended duration of time that DOD has allocated to reconstitute prepositioned stocks as well as a lack of a comprehensive plan to reconstitute these strategic assets. In its version of the FY2008 National Defense Authorization Act (H.R. 1585), the House Armed Services Committee requires DOD to submit an annual report on the status of U.S. prepositioned stocks, including funding requirements, intended future strategic use of these stocks, and strategic risk mitigation plan if these stocks are used before fully replenished. There are other potential considerations related to preposition stocks that Congress might decide to review. Will the Army and Marines reconstitute preposition stocks with equipment such as Armored Security Vehicles (ASVs), MRAPs, and other specialized equipment developed in response to wartime needs or will the Services instead replenish prepositioned stocks to pre-war authorization standards? Another consideration is the readiness status of equipment being used for

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<sup>45</sup> Ibid.

<sup>46</sup> James Hannah, "Differences in Guard Weapons Raise Concern," *Army Times*, May 31, 2007 and Matthew Dolan, "Preparing for Battle," *Baltimore Sun*, May 31, 2007.

<sup>47</sup> Sonya Crawford, "National Guard Dealing with Equipment Shortages," ABC News, February 24, 2007.

<sup>48</sup> Jefferson Morris, "National Guard Needs \$40 Billion to Bring Equipment Up to Snuff, Chief Says," *Aerospace Daily & Defense Report*, February 1, 2007.

<sup>49</sup> Information in this section is taken from House Armed Services Committee press release, "House Armed Services Committee Approves Fiscal Year 2008 Defense Authorization Bill," May 9, 2007, p. 7.

replenishment. Some reports have asserted that much of the equipment being used in DOD's current restocking efforts is in poor condition and requires extensive maintenance.

## How Many MRAPs Does DOD Intend to Procure?

On November 30, 2007, the Marines reduced their MRAP requirement from 3,700 to approximately 2,300 vehicles.<sup>50</sup> The Marines cited six factors in their decision:

- IED attacks were dramatically down over the preceding six months.
- The relatively heavy MRAP cannot operate or pursue the enemy off-road, in confined areas, or across most bridges.
- Reduced need to put Marines on high-threat roads through the use of persistent surveillance and airlift of supplies.
- Counterinsurgency focus requires Marines dismount and interact closely with the local populace.
- MRAPs associated with surge forces were no longer needed.
- MRAP sustainment numbers were lower due to fewer than expected combat losses.

The Marine's reduction in its MRAP requirement from 3,700 to 2,300 was anticipated to result in a potential cost savings of approximately \$1.7 billion in FY2008 and FY2009.

The Army is also expected to cut a number of MRAPs from its current 10,000-vehicle requirement but has not yet publically committed to a specific requirement.<sup>51</sup> The Army also cited decreasing casualties and IED attacks over the previous six months, as well as the need to dismount and interact with the populace, as factors in reducing its original MRAP requirement.

While decreasing MRAP requirements based on the improving tactical situation in Iraq and in anticipation of a reduction in troop levels can be considered prudent management by DOD, at some point DOD will need to establish a firm requirement for the total number of MRAPs to be procured.

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<sup>50</sup> Information in this section is taken from a U.S. Marine Corps Information Paper, "Reduction in the USMC Mrap Requirement" November 30, 2007.

<sup>51</sup> Information in this section is from Tom Vanden Brook, "Army May Cut Armored Vehicles," *USA Today*, December 10, 2007 and Jim Garamone, "Army Looks at Long-Term Need for Mine-Resistant Vehicles," *American Forces Press Service*, December 12, 2007.

## **A Replacement for M-16/M-4 Carbines?**

Allegations that the successor of the Army's M-16/M-4 carbine, the Heckler & Koch's XM-8 assault rifle, was cancelled due to bureaucratic conflicts among Army and DOD acquisition officials might be an issue for congressional examination. Some may question why the Army remains committed to upgrading an almost 50-year-old weapon when other DOD organizations, such as special operations units, have adopted other weapons that are considered more reliable and effective in combat than the M-4 carbine. It can be argued that the Army has exhibited a tendency to pursue incremental improvements to legacy systems, such as repeated add-on armor upgrades to HMMWVs, instead of fully examining and rapidly procuring commercially-available systems that prove to be more effective than current systems.