Marine Corps and Army Reset Liability Estimates

Briefing for the Senate Armed Services Committee

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Introduction

Since 2001, the Marine Corps and Army have spent billions of dollars to reset—repair, recapitalize, or replace—equipment, including equipment returning from operations in Iraq and Afghanistan. The services have identified a multi-billion dollar reset liability as they seek to complete their reset efforts in the coming years.

- In a statement to the Readiness Subcommittee, House Armed Services Committee, in April 2014, Marine Corps leadership stated that the Corps' reset liability declined from an estimated $3.2 billion to approximately $1.0 billion (remaining) as the Corps makes progress in completing reset [Note 1]. As of February 2015, Marine Corps officials anticipate the completion of their reset efforts in fiscal year 2017.
- In April 2014, the Army projected a need for just over $6.0 billion for reset [Note 2]. Because Army reset is expected to continue 2 to 3 years after the end of major overseas operations, there is not a specific end date for Army reset.

Note 1: Statement of General John M. Paxton, Jr., Assistant Commandant, United States Marine Corps, before the House Committee on Armed Services, Subcommittee on Readiness, 113th Cong., 2nd sess., April 10, 2014. Marine Corps officials explained to us that the $3.2 billion reset liability estimate was for fiscal years 2013 through 2016 and that the revised $1.0 billion reset liability estimate was for the fiscal years 2015 and 2016 timeframe.
Note 2: Statement of General John F. Campbell, Vice Chief of Staff, United States Army, before the House Committee on Armed Services, Subcommittee on Readiness, 113th Cong., 2nd sess., April 10, 2014.

Introduction (cont.)

Service officials have stated that inadequate reset funding can directly decrease military readiness.

- In April 2014, a senior Marine Corps official testified that the service had accepted risk to both personnel and equipment readiness of non-deployed units to fully support forward deployed forces [Note 3]. The official added that more than half of non-deployed units were experiencing degraded readiness in their ability to perform their core missions. He emphasized the importance of reset in relation to readiness, citing the possibility of a delayed response to a contingency or in executing an operational plan.
- Also in April 2014, a senior Army official described a fully funded Army reset program as critical to ensuring that equipment worn and damaged by prolonged conflict is recovered and restored for future Army requirements [Note 4]. The official stated that Army had deferred equipment reset amounting to more than $700 million and that, in the event of a crisis, the Army would deploy units at a significantly lower readiness level [Note 5].

Note 3: Statement of General John M. Paxton, Jr., Assistant Commandant, United States Marine Corps, before the House Committee on Armed Services, Subcommittee on Readiness, 113th Cong., 2nd sess., April 10, 2014.
Note 4: Statement of General John F. Campbell, Vice Chief of Staff, United States Army, before the House Committee on Armed Services, Subcommittee on Readiness, 113th Cong., 2nd sess., April 10, 2014.
Note 5: Testimony of General John F. Campbell, Vice Chief of Staff, United States Army, before the House Committee on Armed Services, Subcommittee on Readiness, 113th Cong., 2nd sess., April 10, 2014.

Engagement Source of Work and Briefing Objectives

Committee Report 113-176 included a provision that we assess the Marine Corps' and Army's reset liability estimates [Note 6].

This briefing provides observations regarding the processes the Marine Corps and Army use in producing reset liability estimates, including the extent to which the services use a consistent definition of reset in producing reset liability estimates and use similar cost factors and assumptions in producing reset liability estimates.

Note 6: *See* S. Rep. No. 113-176, at 80-81 (2014) (accompanying S. 2410, a bill for the National Defense Authorization Act for Fiscal Year 2015).

Scope and Methodology

To develop our observations on the process the Marine Corps and Army use to produce reset liability estimates, we reviewed:

- Marine Corps and Army guidance, such as the Marine Corps Operation Enduring Freedom Ground Equipment Reset Strategy and the Army Materiel Maintenance Policy, concerning equipment, maintenance, and modernization,
- service documentation of reset activities such as the Marine Corps Ground Equipment Reset Playbook,
- Office of the Under Secretary of Defense (Comptroller) budget documentation such as the Fiscal Year 2015 Budget Estimates, and
- testimonies and statements of senior Department of Defense (DOD) officials before congressional committees concerning reset activities.

We also interviewed DOD officials regarding the production of reset liability estimates including:

- Marine Corps
  - Logistics Command, executive agent for tactical coordination, planning, and execution of ground equipment reset,

Scope and Methodology (cont.)

- Systems Command, involved with acquisition and sustainment of systems and equipment used to accomplish the Marine Corps warfighting mission,
- Headquarters, Installations and Logistics, responsible for planning, programming, policy, and oversight of sustainment and logistics support provided to the Marine Corps, and
- Headquarters, Programs and Resources, the office that develops and defends the Marine Corps financial requirements, policies, and programs, tasked with forecasting equipment reset liability.

- Army Headquarters
  - G-4 (Office of the Deputy Chief of Staff of the Army, Logistics), the office that oversees reset and is responsible for developing policies and implementing procedures for Army maintenance operations,
  - G-8 (Office of the Deputy Chief of Staff of the Army, Force Development), the Army lead for matching available resources to the defense strategy and the Army plan, and
  - Deputy Assistant Secretary of the Army for Budget, the office with the mission of Department of the Army budget formulation and the presentation and defense of the budget.

Scope and Methodology (cont.)

- Office of the Secretary of Defense, Office of Cost Assessment and Program Evaluation, developers of the Operating and Support Cost Estimating Guide.

To illustrate similarities and differences between how the Marine Corps and Army produce their reset liability estimates, we selected an equipment item used by the two services. Specifically, we selected the 155MM towed howitzer after considering major ground equipment items that are common to both services and are being reset as they return from Afghanistan.

Background

In a January 2007 memorandum regarding the use of consistent terms during congressional testimony, DOD defined reset, in part, as actions taken to restore units to a desired level of combat capability commensurate with the units' future mission [Note 7].

Reset can include depot (sustainment) and field-level maintenance and supply activities that restore and enhance combat capability to equipment used in combat operations. Reset includes:

- repair – restoration of parts or components of equipment as necessitated by wear and tear, damage, or failure of parts in order to maintain it in efficient operating condition,
- recapitalization – refurbishment of equipment to near zero-time/zero-mile status (like-new condition) resulting in the same model with a fully available lifespan, and
- replacement – acquisition of new equipment or components in lieu of current stock.

Note 7: Deputy Under Secretary of Defense for Logistics and Materiel Readiness memorandum, *Resetting the Force (RESET) and Depot Maintenance Capacity and Utilization* (Jan. 26, 2007).

Background (cont.)

According to DOD officials, there is no departmental guidance regarding how reset liability estimates are to be produced or a definition of what constitutes a reset liability estimate. However, both services use reset liability estimates internally to inform their budgetary submissions.

For the purposes of this briefing,

- reset liability estimates are the amount of funding that may be required by a service to return its equipment to combat-ready condition and
- unit repair cost is the amount of funding to reset a single piece of equipment, and such costs are aggregated to generate reset liability estimates.

Background: GAO's Prior Work on Reset

GAO has reported on challenges affecting the reset of Marine Corps and Army equipment [Note 8]. These challenges include the implementation of maintenance strategies, tracking reset costs, and the consequences of delaying depot maintenance on those costs.

- In March 2006, we testified on aspects of reset activities in support of contingency operations [Note 9].
  - We found that some service practices, such as deferred depot maintenance and increased operations tempo, can result in increased reset costs.
  - We concluded that, in light of continuing contingency operations, until the services are able to firm up requirements and reset cost estimates, neither the Secretary of Defense nor the Congress will be in a sound position to weigh the trade-offs and risks associated with funding levels to reset equipment.

Note 8: For a list of Related GAO products, see slide 28.
Note 9: GAO, *Defense Logistics: Preliminary Observations on Equipment Reset Challenges and Issues for the Army and Marine Corps*, GAO-06-604T (Washington, D.C.: Mar. 30, 2006).

Background: GAO's Prior Work on Reset (cont.)

- In September 2007, we concluded that until the Marine Corps and Army are required to report the obligation and expenditure of funds appropriated for reset in the procurement accounts at a more detailed level, Congress would not have the visibility it needs to exercise effective oversight and to determine if the amount of funding appropriated for equipment reset has been most appropriately used for the purposes intended [Note 10]. We recommended to the Secretary of Defense that the services improve their reporting of reset obligations and expenditures and reassess their approaches to equipment reset.
  - DOD did not concur with our recommendations, stating that the creation of additional detail in reporting would be too complex and duplicative and that the Marine Corps and Army already continually assess their approaches to reset.
  - Subsequently, we modified our recommendation to be clearer as to the level of detail we recommended for the reporting of obligations and expenditures in the procurement accounts. This recommendation, we noted, was to provide Congress with the visibility it needed to identify the types of equipment that are being procured with the reset funds Congress appropriates, such as aircraft, vehicles, or communication and electronic equipment.

Note 10: GAO, *Defense Logistics: Army and Marine Corps Cannot Be Assured That Equipment Reset Strategies Will Sustain Equipment Availability While Meeting Ongoing Operational Requirements*, GAO-07-814 (Washington, D.C.: Sept. 19, 2007).

Background: GAO's Prior Work on Reset (cont.)

- In May 2012, we found that the Army's monthly reset reports to Congress did not include expected future reset liabilities [Note 11]. We concluded that decision makers need visibility into the accuracy of program execution to ensure basic accountability and to anticipate future costs.
  - We recommended that the Army revise its monthly congressional reset reports to include its future reset liability and status of equipment reset.
  - DOD did not concur with this recommendation but stated that the Army would report its reset liability annually. Specifically, DOD stated that the Army planned to include the Army's estimate of future equipment reset liability in its summary report to Congress for the fiscal year. We noted that the Army's plan to report future equipment reset liabilities in its summary report for each fiscal year would meet the intent of our recommendation.
  - In February 2015, an Army official was unable to provide us with its annual report of reset liability estimates as described in DOD comments of May 2012.

Note 11: GAO, *Warfighter Support: Army Has Taken Steps to Improve Reset Process, but More Complete Reporting of Equipment and Future Costs Is Needed*, GAO-12-133 (Washington, D.C.: May 15, 2012).

Summary

In the absence of a standard DOD process for producing reset liability estimates, the Marine Corps and Army have each developed their own processes. Although there are similarities in the services' processes, there are key differences, as shown in table 1.

- The services use the same definition of reset in preparing their estimates, but they apply that definition to different categories of equipment and calculate reset liability over different time periods. For example, the Marine Corps' reset liability estimate includes ground equipment, but the Army estimate includes both ground and aviation equipment. The Marine Corps' reset liability estimate is for the entire period of reset and the Army estimate is for a 2-year period.
- In producing their estimates, the services use similar cost factors, such as parts and labor. However, they make different assumptions about the condition of the returning equipment that they will reset. Because of the differing assumptions about condition, the estimated unit repair cost of a piece of equipment common to each service scheduled for reset in the same year, such as a 155MM towed howitzer, can be different for each service, which can result in different reset liability estimates.

Details on each service's processes, definitions, cost factors, and assumptions appear in subsequent slides.

Summary (cont.)

Table 1: Comparison of Marine Corps and Army Reset Liability Estimate Characteristics

Characteristics	Marine Corps	Army
Reset definition source	2007 Department of Defense memo	2007 Department of Defense memo
Types of equipment	Ground	Ground and aviation
Period covered by estimate	All fiscal years until completion	2 fiscal years
Period covered in the service budget information	Current fiscal year and next	Current fiscal year and next
Produced by	Headquarters and commands	Headquarters and commands
Typical cost factors	Parts and labor	Parts and labor
Assumptions (updated as information becomes available)	Worst-case	Historical information

Source: GAO analysis of Marine Corps and Army data. | GAO-15-569R

Marine Corps Reset Liability Estimating Process

Marine Corps officials describe their process for producing reset liability estimates as follows:

- The Marine Corps uses the 2007 DOD definition of reset in preparing its reset liability estimate for ground equipment.
- Marine Corps Headquarters, Installations and Logistics, maintains a database called “The Ground Equipment Reset Playbook,” which contains the reset strategy for each of the equipment items returning from Afghanistan.
- Marine Corps officials update the reset playbook with information from Marine Corps Logistics Command and Systems Command officials concerning the quantity of each major equipment item to be reset and other information, such as where the equipment will be needed after reset.

Based on reset playbook information, and combining the estimated unit repair costs of the items planned for reset, Marine Corps officials create the reset liability estimate for the service.

Marine Corps Reset Liability Estimating Process (cont.)

The Marine Corps process produces reset liability estimates for the entire anticipated period of reset operations, from the beginning of operations until all equipment is reset.

- The Marine Corps began drawdown from contingency operations in December 2011 when initial units left Afghanistan. Officials anticipate the completion of Marine Corps reset in fiscal year 2017.
- Annually, Marine Corps officials update the reset liability estimates through the end of the reset period.

Additionally, Marine Corps officials told us that they include proposed reset expenditures as part of the service's budget information. Specifically, the Marine Corps uses the reset liability estimate to develop its 2-year budget projection for the current year and for the coming planning year in the DOD budget cycle.

Marine Corps Reset Liability Estimating Process (cont.)

The Marine Corps process for producing reset liability estimates is informed by typical cost factors such as parts and labor. When cost factors and other information such as the condition of returning equipment are not known, officials stated that they rely on and use assumptions until better information becomes available.

- For returning equipment, Marine Corps officials stated that they make assumptions concerning the following:
  - timing of item return and depot capacity,
  - force structure (the types of units to be outfitted),
  - future mission (a vehicle used for combat operations compared to the same vehicle used for support operations), and
  - condition of returning equipment.

Marine Corps officials explained that without reliable information concerning the condition of returning equipment, they assume the equipment will arrive in the worst-case condition. However, officials stated that when items return in better condition than anticipated, they update the worst-case assumption concerning the returning item and lower the item's estimated unit repair cost.

Army Reset Liability Estimating Process

Army officials describe their process for producing reset liability estimates as follows:

- The Army uses the 2007 DOD definition of reset in preparing its reset liability estimate for ground and aviation equipment.
- Army Headquarters Reset Task Force issues an annual data call as part of its budget process. This data call is sent to the various supporting elements and commands responsible for different types of equipment.
- At the supporting elements and commands, item managers propose equipment for reset in response to the data call. The proposals are based on Army-wide equipment needs and the availability of the equipment returning from contingencies.
- Estimated unit repair costs for each item of equipment selected for reset are determined by officials at the responsible command. Army Reset Task Force officials and Army Budget Office officials create the Army's reset liability estimate by combining the estimated unit repair costs of equipment selected for reset.

Army Reset Liability Estimating Process (cont.)

According to Army officials, the Army process produces reset liability estimates for 2 fiscal years—the current execution year and the next planning year. For example, in 2014 the Army's reset liability estimate projects the funds needed in fiscal year 2014 and fiscal year 2015, even though reset will continue beyond this 2-year period.

- The Army began drawdown from contingency operations in Afghanistan in 2012. According to Army officials, they anticipate reset will continue 2 to 3 years after the end of contingency operations, but the end date of contingency operations is not known.
- For the Army, proposed reset expenditures can be identified in the service's budget information. Specifically, anticipated reset liability is reflected as a 2-year period in the budget information: for the current year and for the planning year to come based on the DOD budget cycle. As a result, the Army's 2-year budget information constitutes its reset liability estimates.

Army Reset Liability Estimating Process (cont.)

Like the Marine Corps process, according to Army officials, the Army's process for producing reset liability estimates is informed by typical cost factors such as parts and labor. When cost factors and other information such as the condition of returning equipment are not known, Army officials stated that they make assumptions about returning equipment. The Army differs from the Marine Corps in its assumption concerning equipment condition.

- The Army applies historical information to produce its estimated unit repair costs for a particular item when the condition of the returning equipment is unknown. Just as the Marine Corps updates worst-case assumptions as necessary, officials stated that the Army adjusts its historical assumptions as better information becomes available concerning the actual condition of returning equipment.

Illustrative Example: 155MM Towed Howitzers

The effects of the services' different assumptions on reset liability estimates are illustrated with the 155MM towed howitzer. The Marine Corps and Army used more than 40 155MM towed howitzers in Afghanistan. A howitzer, shown in figure 1, is an artillery piece that is air-transportable. The services used similar cost factors but different assumptions in calculating the estimated unit repair cost for this item.

Figure 1: 155MM Towed Howitzer

Source: U.S. Army. | GAO-15-569R

Illustrative Example: 155MM Towed Howitzers (cont.)

The Marine Corps and Army both are resetting the 155MM towed howitzer. Both services use parts and labor as cost factors. However, the service estimates of the amount of parts and labor needed differ in part because of assumptions the services are making about the condition of the howitzers they plan to repair.

- Marine Corps: parts and labor to repair a howitzer returning in the worst condition possible.
- Army: parts and labor to repair a howitzer returning in average condition (historical).

As previously discussed, the Marine Corps and Army use some different assumptions in producing reset liability estimates. In this situation, estimated unit repair costs and the resulting reset liability estimates vary even for the same equipment item. The possible effects of these assumptions on estimates can be seen in table 2.

Illustrative Example: 155MM Towed Howitzers (cont.)

Table 2: Howitzer Assumptions and Estimated Unit Repair Costs

	Marine Corps	Army
Assumptions used to develop estimated unit repair costs	Uses worst-case assumption updated as necessary	Uses historical information assumption updated as necessary
Estimated unit repair costs for each fiscal year (FY)	In FY 13 $396,447 per howitzer In FY 14 $311,090 per howitzer	In FY 13 $265,374 per howitzer In FY 14 $246,778 per howitzer

Source: GAO analysis of Army and Marine Corps data. | GAO-15-569R

Illustrative Example: 155MM Towed Howitzers (cont.)

Actual costs for repairing a howitzer can differ from the estimated unit repair costs for a number of reasons. For example, the condition of the equipment, the future mission, and depot capacity can result in a range of costs in parts and labor. Fiscal year 2014 estimated and actual costs of repair for the howitzers illustrate the potential variation between estimated and actual repair costs.

- In fiscal year 2014, the Marine Corps estimated $311,090 and the Army estimated $246,778 for a single howitzer repair.
- However, the actual cost to repair a howitzer can exceed either service's estimated repair cost. For example, in fiscal year 2014 the most expensive repair in the Marine Corps was $552,225.

Reset Estimating Processes May Change

The services' processes to produce reset liability estimates may change as a result of DOD action mandated by legislation.

Section 324 of the National Defense Authorization Act for Fiscal Year 2014 requires DOD to establish a policy setting forth the programs and priorities of the department for the retrograde, reconstitution, and replacement of units and materiel—which would include reset—used to support overseas contingency operations [Note 12].

- The policy and a required implementation plan are to address, among other things, the priorities, goals, objectives, timelines, and resources to reestablish the readiness of redeployed operating forces.
- The implementation plan must also include an estimate of the resources necessary by service and by year to implement the plan, as well as an assessment of the risks assumed in the plan.

Note 12: *See* National Defense Authorization Act for Fiscal Year 2014, Pub. L. No. 113-66, § 324 (2013) (10 U.S.C. § 129a note).

Reset Estimating Processes May Change (cont.)

Section 324 required DOD to submit the implementation plan to the congressional defense committees not later than 90 days after the date of enactment and requires an annual update on progress toward meeting the goals of the plan [Note 13]. Once issued, DOD's policy and implementation plan may influence the services' processes that produce reset liability estimates.

Section 324 also required GAO to conduct a review of the policy and implementation plan not later than 120 days after the date of enactment and requires a review of DOD's annual updates. We met our first mandate with a report submitted on April 23, 2014, and found that DOD had not established a policy or submitted an implementation plan [Note 14]. DOD submitted a classified report in November 2014 in response to this mandate and we have recently initiated a review.

Note 13: The National Defense Authorization Act for Fiscal Year 2014 was enacted on December 26, 2013.
Note 14: GAO, *Warfighter Support: DOD Policy and Implementation Plan for Reconstitution of Forces,* GAO-14-530R (Washington, D.C.: Apr. 23, 2014).

Related GAO Products

Warfighter Support: DOD Policy and Implementation Plan for the Reconstitution of Forces. GAO-14-530R. Washington, D.C.: April 23, 2014.

Warfighter Support: Army Has Taken Steps to Improve Reset Process, but More Complete Reporting of Equipment and Future Costs Is Needed. GAO-12-133. Washington, D.C.: May 15, 2012.

Defense Logistics: Actions Needed to Improve the Marine Corps' Equipment Reset Strategies and the Reporting of Total Reset Costs. GAO-11-523. Washington, D.C.: August 4, 2011.

Defense Logistics: Army and Marine Corps Cannot Be Assured That Equipment Reset Strategies Will Sustain Equipment Availability While Meeting Ongoing Operational Requirements. GAO-07-814. Washington, D.C.: September 19, 2007.

Defense Logistics: Preliminary Observations on the Army's Implementation of Its Equipment Reset Strategies. GAO-07-439T. Washington, D.C.: January 31, 2007.

Defense Logistics: Preliminary Observations on Equipment Reset Challenges and Issues for the Army and Marine Corps. GAO-06-604T. Washington, D.C.: March 30, 2006.

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